

Standard Change and the Finnish Partitive-Accusative Object Distinction

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Attempts to account for the Finnish partitive-accusative direct object distinction (PA distinction) based on a single semantic generalization either make false predictions or are stated in vague terms. I take a more focused approach to the PA distinction, restricting my analysis to verbs entailing potential for change (PFC) (Beavers 2011) in their themes. To account for the PA distinction among these predicates, I develop the notion of standard change—in essence, context-sensitive quantized change—and argue that a direct object’s case does not simply follow from lexical entailments but in fact has truth-conditional force. In particular, I argue that accusative case-marking on the direct object of a PFC predicate contributes the entailment that the theme of the event described undergoes standard change, whereas partitive case-marking bears no such entailment.

Keywords: Finnish case, accusative, partitive, affectedness, telicity, standard change

1 Introduction

The direct objects of Finnish transitive verbs bear either partitive or accusative case, as in the following examples:

- (1) a. ...ravist-i purkki-a.
shake-PAST.3SG canister-SG.**PART**
‘...he shook the canister.’ (Google search for “ravisti”)
- b. Ravist-i-n mato-t.
shake-PAST-1SG carpet-PL.**ACC**
‘I shook the carpets (out).’ (Heinämäki 1994:(14a))
- (2) a. ...tänään mä loukkas-i-n hiukan jalka-a-ni.
today I.NOM injure-PAST-1SG slightly foot-SG.**PART**-Poss.1SG
‘...today I injured my foot slightly.’ (Google search for “loukkasin hiukan”)
- b. ...keskikenttäpelaaja loukkas-i polv-e-nsa.
midfielder.NOM injure-PAST.3SG knee-SG.**ACC**-Poss.3SG
‘...the midfielder injured his knee.’ (Google search for “loukkasi polvensa”)

Many thanks to Beth Levin, Chris Potts, Penny Eckert, Donka Farkas, Dan Lassiter, Ethan Poole, the Stanford Semantics and Pragmatics Group, and the audience of CSSP 2013. Special thanks, also, to Arto Anttila, Lauri Karttunen, and Paul Kiparsky for their judgments and reflections, and again to Paul for inspiring this work. Lastly, I thank Chris Piñón and an anonymous reviewer for their helpful comments and suggestions.

- (3) a. Pekka potkais-i pallo-a.
 Pekka kick-PAST.3SG ball-SG.**PART**
 ‘Pekka kicked the ball.’
- b. Pekka potkais-i pallo-n takaisin ...
 Pekka kick-PAST.3SG ball-SG.**ACC** back
 ‘Pekka kicked the ball back ...’ (Google search for “potkaisi pallon”)

Linguists and grammarians have been examining the distribution of accusative and partitive case on the direct objects of Finnish transitive verbs for over a century, and no attempt to provide a single, concise generalization explaining the partitive-accusative object distinction (PA distinction) has been fully successful. The complexity of the PA distinction and the challenges it poses to single-generalization approaches are captured well by the following unintentionally humorous post to the language-usage website WordReference.com, in which the user expresses concern over a Finnish news headline:

- (4) **Headline:** *Mies puukotti naista kaulaan Kontulassa*
 (Translation: ‘Man stabs woman(-SG.**PART**) in the neck in Kontula’)
User Comment: Why is *nainen* in the partitive? Isn’t this a finished action? What kind of meaning does the partitive convey here and why not use the accusative? Thanks.

Here, the user is troubled not so much by the headline’s horrific content, but by the case of the headline’s direct object *naista*, the partitive singular form of *nainen* ‘woman’. Generalizations like “Partitive case indicates an unfinished action” fail the hapless user.

Though the PA distinction is still not fully understood, previous research has delivered a number of important insights into the problem. At the highest level, it is clear that the PA distinction is a function of semantic considerations. Quantitatively indeterminate DPs (roughly, the Finnish equivalent of bare plurals and mass nouns) and imperfective aspect (in particular, progressive and iterative aspect), for instance, seem to require partitive direct objects (Kiparsky 1998). Prior work has also established links between the PA distinction and notions like resultativity (e.g. Hakulinen and Karlsson 1979, Larjavaara 1991), boundedness (e.g. Heinämäki 1984, Leino 1991, Heinämäki 1994, Kiparsky 1998, 2005), and telicity (e.g. Kratzer 2004). Some have tried to account for the PA distinction based solely on these notions, but, to my knowledge, each such analysis either makes some clearly false predictions or does not provide enough explicit discussion for one to know how to test its validity.

Another feature of previous research on the PA distinction relevant to the present article is that direct object case is often presented as simply following from the lexical entailments of the verbal predicate (setting aside the issue of imperfective aspect and the semantics of the direct object itself). One clear exception to this perspective is that offered by Kratzer (2004). On Kratzer’s (2004) account, which focuses on the distribution of the accusative case, it’s not that the accusative case is licensed only by verbs with certain aspectual properties; rather, it contributes the aspectual properties in question.

The central aims of this work are twofold. First, I will provide a semantic account of the PA distinction for a subclass of Finnish transitive verbs—namely, verbs involving *potential for change* (PFC) in their themes (Beavers 2011). In essence, these are verbs whose themes are acted or impinged upon in some way (e.g. *ravistaa* ‘shake’; *loukata* ‘injure, wound, hurt’; *potkaista* ‘kick’; *siirtää* ‘move’; *suudella* ‘kiss’; *tappaa* ‘kill’). The particular set of verbs underlying my

analysis is based largely on the corresponding Tongan verbs explored in Ball's (2009) work on argument realization, and includes verbs of change of state, cutting, exerting force, putting or removing, contact, contact by impact, destroying or killing, ingesting, and motion. Restricting ourselves to a principled subset of verbs yields a deeper understanding and more precise characterization of the dynamics underlying the PA distinction, and serves as an important counterweight to single-generalization approaches that, despite their insights, face significant empirical challenges or are stated in vague terms. Second, I argue for a broadly Kratzerian (2004) view of the PA distinction vis-à-vis PFC predicates, whereby direct object case-marking in Finnish has truth-conditional, aspectual force.

The remainder of the paper is structured as follows. I will begin with an overview of the PA distinction, focussing in particular on the influential work of Kiparsky (1998), highlighting both insights and challenges for analyses developed prior to Kratzer (2004). I will then offer a provisional account of the PA distinction among PFC predicates, based on Beavers' (2011) work on *affectedness* and his notion of *quantized change*. This provisional approach provides a step in the right direction but doesn't fully accord with the context-sensitivity of the PA distinction or the evidence that the lexical entailments of a verbal predicate do not fully determine the case of its direct object (even when controlling for imperfective aspect and the semantics of the object itself). I then turn to the analysis of Kratzer (2004), which speaks to these problems but, as I will show, does not work for PFC predicates.

In response, I present the notion of *standard change* to account for the PFC data. For now, standard change may be thought of as akin to Beavers' (2011) notion of *quantized change*, but, importantly, with provisions made for contextual factors, drawing in spirit on the work of Kennedy (2007) and Kennedy and Levin (2008). Roughly, standard change involves scalar change to a particular goal degree (i.e. *standard*) g , where the value of g and the nature of the requisite scale are contextually determined. The generalization, then, is that the accusative case on the direct object of a PFC predicate contributes the entailment that the theme of the event described undergoes standard change, whereas the partitive case bears no such entailment. I then answer some potential objections to my account and conclude by discussing some of the implications of this work and how research on the PA distinction might proceed from here.

Before proceeding, a brief note is in order. As mentioned above, quantitatively indeterminate direct objects and imperfective aspect require that a direct object be marked with partitive case. The main focus of this work, however, is the verbal-aspectual nature of the PA distinction, holding those other factors fixed. Thus, it may be assumed, unless otherwise specified, that we are dealing with event descriptions involving quantitatively determinate objects and perfective aspect—that is, instances in which the accusative case is not altogether precluded.

2 Previous Approaches: Insights and Challenges

I shall not attempt here to provide a comprehensive overview of previous research on the PA distinction. Instead, I will take as my point of departure the analyses in Heinämäki 1994 and Kiparsky 1998—two works that are theoretically united and together address much of the research preceding them (e.g. Dahl and Karlsson 1976, Hakulinen and Karlsson 1979, Heinämäki 1984, Larjavaara 1991, Leino 1991, Vainikka 1993). Both find the telicity- and resultativity-based approaches of prior accounts to be inadequate, and both center their analyses around the notion of *boundedness*. I begin with Kiparsky 1998, the more explicit of the two works.

For Kiparsky (1998), *boundedness* applies both to verbal predicates and their internal nomi-

nal arguments. A verbal predicate, he says, is *bounded* if (and only if) it is not gradable: “What is relevant is the gradability of the event: bounded predicates, whether telic or atelic, admit of no degree.” Kiparsky’s diagnostic for the boundedness of a verbal predicate is whether “it can be modified by degree adverbs, [...] referring to the *extent of a single eventuality*” (269, emphasis in original). If so, the predicate is unbounded. Below are some English examples from Kiparsky 1998. Each includes a degree adverb, suggesting that the relevant predicate is unbounded:

- (5) a. The sportsman *shot at* a bear some more.
 b. I *looked for* the key a lot.
 c. Mary *wanted* the book very much. (Kiparsky 1998:(5a-c))

Analogously, boundedness in the nominal domain is also said to be a matter of gradability; all and only quantitatively indeterminate DPs are unbounded. The boundedness of a VP, then, is determined compositionally as in (6), and, in turn, Kiparsky’s account of the PA distinction is as stated in (7).

- (6) A VP predicate is unbounded if [and only if] it has either an unbounded head, or an unbounded argument. (Kiparsky 1998:(38))
 (7) A partitive object is ungrammatical if the VP is bounded, and an accusative object is ungrammatical if the VP is unbounded. (Kiparsky 1998:286)

To see how this account works, consider (8), based on Kiparsky’s example (1).

- (8) a. Ammu-i-n karhu-j-a.
 shoot-PAST-1SG bear-PL-**PART**
 ‘I shot (at) the bears.’ / ‘I shot (at) bears.’ / ‘I shot (and killed) bears.’
 b. Ammu-i-n karhu-t.
 shoot-PAST-1SG bear-PL-**ACC**
 ‘I shot (and killed) the bears.’

Consider first (8a), whose direct object *karhuja* is partitive. By (7), the VP of (8a) must have an unbounded interpretation, and by (6), this requires that either the verbal predicate, the direct object, or both have an unbounded interpretation. Leaving aside imperfective aspect, this yields three possible interpretations, as indicated in (8a). In the first one, the interpretation of the direct object is bounded (‘the bears’), but the verbal predicate *ammuin* receives a gradable and thus unbounded interpretation; one can certainly shoot *at* something a lot, a little, etc. In the second interpretation, we have an unbounded interpretation for both the direct object (this time, ‘bears’) and the verbal predicate. Finally, in the third interpretation, the direct object receives an unbounded interpretation but the verbal predicate does not; the verbal predicate is taken to entail that bears were shot *and killed*, and, intuitively speaking, one generally cannot shoot and kill something a bit, to a great extent, and so on. In contrast, we have only one interpretation for (8b). The object is accusative, so it and its verbal predicate must receive a bounded interpretation, and we end up with, ‘I shot (and killed) the bears.’

Kiparsky’s analysis is instructive and appealing in its generality. Not only does it highlight the importance of both nominal and verbal semantics in the PA distinction, it also attempts to account for the PA distinction via a single semantic property, one that cuts across not only the nominal and verbal domains each taken as a whole, but also classes within the verbal domain.

Unfortunately, the account faces significant challenges. Take, for example, the PFC predicate *potkaista* ‘kick’. Under Kiparsky’s notion of boundedness, verbs that don’t admit of gradability with respect to a single eventuality are bounded. It seems, then, that *potkaista* is one such verb. If, for instance, two individuals both kick a large boulder, one twice as hard as the other, we would not likely say that the former kicked the boulder “more” or “to a greater extent.” Nor if a person were to kick something with an impressive amount of force would we likely say that she kicked it “a lot” or “very much.” To say that someone has kicked something “a lot” or “more” amounts to a claim about the number of kicks executed, not the extent of a single eventuality. Thus, under Kiparsky’s conception of boundedness, *potkaista* is bounded. But, counter to (7), *potkaista* generally takes partitive direct objects, as in (3a). The same goes for a host of similar verbs on their semelfactive readings, including but not limited to *sohia* ‘poke’, *lyödä* ‘hit, strike, knock, beat’, *suudella* ‘kiss’, *läimäyttää* ‘slap, smack, slam’, *nipistää* ‘pinch, tweak’, and *nuolla* ‘lick’.

Conversely, *loukata* ‘injure, wound, hurt’, which is compatible with the degree adverb *hiukan* ‘slightly’ (see (2)) and comparative phrases, is apparently gradable and therefore unbounded, but typically takes accusative objects, as in (9).

- (9) Loukkas-i-n polv-e-ni pahemmin kuin koskaan aikaisemmin.
 injure-PAST-1SG knee-SG.ACC-Poss.1SG much than ever before
 ‘I hurt my knee more than ever before.’ (Lauri Karttunen, personal communication)

Certain stative verbs like *tuntea* ‘know’ and *ymmärtää* ‘understand’ present a similar challenge: both seem to be gradable, yet both typically take accusative direct objects (Djalali 2012).

So, some apparently bounded verbs tend to have partitive direct objects, and some apparently unbounded verbs tend to have accusative direct objects. This means that either the generalization in (7) simply doesn’t hold, or some additional work is required to further explicate just how the notion of boundedness is to apply to particular verbs and verb classes.

Heinämäki 1994, another insightful account, runs into similar difficulty. Heinämäki, too, appeals to the notion of boundedness, and claims that accusative direct objects indicate a bounded event. Again, however, it is often unclear exactly why one predicate is taken to be bounded and another is not, as her analysis of the verbs *pitää* ‘keep’ and *odottaa* ‘wait’ illustrates. *Pitää*, in its ‘keep’ sense, often takes accusative direct objects, which Heinämäki explains by claiming that events of keeping have conventional temporal endpoints, and are thus conventionally bounded. At the same time, she claims that *odottaa* ‘wait’ typically takes partitive direct objects, “[...] because waiting [...] [has] no conventional end point” (219). One is left to wonder how it is that keeping something is any more associated with a natural endpoint than is waiting for something. Indeed, one could just as easily claim the opposite: a natural endpoint of waiting could be the arrival of the thing waited for.

In brief, despite their many insights, accounts attempting to explain the PA distinction via a single semantic property like boundedness have, to date, fallen short of their goal, either because they make some false predictions or because the predictions they make relative to certain important cases are unclear. In light of this, I will take a more focused approach in what remains, with the aim of getting the facts right for a principled class of predicates—namely, PFC predicates (cf. Djalali’s 2012 account of the PA distinction among stative predicates).

3 A Provisional Approach: Quantized Change

The goal of Beavers' (2011) work is to provide a principled, independently-motivated definition of *affectedness*, a notion, "usually construed as a persistent change in or impingement of an event participant" (335). He divides eventive predicates into four groups based on the specificity of the predicates' entailments concerning the affectedness of their themes. Approximately speaking, Beavers says that for a predicate ϕ and a theme x , x : (i) is *unspecified for change* iff $\phi(x)$ does not entail any impingement or force upon x ; (ii) has *potential for change* iff $\phi(x)$ entails some impingement or force upon x ; (iii) undergoes *non-quantized change* iff $\phi(x)$ entails a change in x along some scale of change s ; and (iv) undergoes *quantized change* iff $\phi(x)$ entails that x changes along some scale s to g_ϕ , where g_ϕ is a degree on s specified by ϕ that corresponds to a goal state. Beavers points out that any event of quantized change is likewise one of non-quantized change, and any event of non-quantized change is likewise one of potential for change. Thus, PFC predicates are predicates that entail "at least" potential for change; predicates entailing (non-)quantized change are themselves PFC predicates. Beavers also stresses that this way of categorizing predicates is equally applicable to predicates of motion, creation/consumption, and change-of-state, all of which can be understood as involving scalar change. From the perspective of affectedness, the differences between these types of change simply correspond to different scale types—paths, extent scales, and property scales, respectively (Beavers 2008, 2011, Rappaport Hovav 2008). I adopt the same perspective herein, and any claims or accounts to follow are intended to apply to any of these event types.

It turns out that this conception of quantized change provides a useful, if imperfect, way of thinking about the PA distinction among PFC predicates. I offer the following provisional generalization (recall that quantitative determinacy in a direct object is a necessary but not sufficient condition for the accusative case).

- (10) **Provisional Generalization** A quantitatively determinate direct object of a Finnish PFC predicate ϕ is accusative iff ϕ entails quantized change in its theme (barring imperfective aspect).

Let's see how this proposal handles the data I have presented thus far, beginning with *potkaista* 'kick'. Again, *potkaista* typically takes partitive direct objects, as illustrated in (3a). The generalization in (10) predicts this: *potkaista* does not entail change of any kind in its theme, let alone quantized change, so the verb's direct object is usually partitive. Happily, the same is true for other Finnish PFC verbs that do not strictly entail any change in their themes: since they don't entail change on their own, they typically take partitive direct objects, in accordance with (10). At the same time, (10) seems to account for examples like the resultative (3b). The idea is to treat the main verb *potkaista* 'kick' and the adverbial phrase *takaisin* 'back' as together forming a PFC predicate that entails that its theme traverses some path from its initial location to its prior point of origin as a result of being kicked. This composite predicate (assuming contextual resolution of the deictic *takaisin* 'back') thus entails quantized change in its theme—in this case, change along some scale (a path) to a particular degree, the latter corresponding to the theme's prior point of origin. Thus, in keeping with (10), the direct object in (3b) is accusative. More generally, resultative constructions based on PFC verbs take accusative direct objects, as observed by Heinämäki (1994) and Kiparsky (1998) and as predicted by (10).¹

¹Note that a partitive direct object is felicitous in such constructions given an interpretation involving imper-

Importantly, according to (10) entailed change in a theme is not enough to engender an accusative direct object, as (11a) illustrates. The verb *siirtää* ‘move’ does entail change on the part of its theme—in particular, change in its location or orientation. But *siirtää* on its own does not provide a particular goal state to be attained. Hence, it does not entail quantized change in its theme, and, in line with (10), its direct object is partitive in (11a). As with *potkaista* ‘kick,’ however, *siirtää* can take an accusative direct object when it occurs with a locative adverbial like *pois* ‘away’, as in (11b). Here, the account is analogous to that of (3b): *siirtää* and *pois* together form a PFC predicate that entails that its theme traverses a scale corresponding to a path from its initial position to wherever *pois* ‘away’ is understood to be in context, the latter being the requisite goal state. Thus, we have an entailment of quantized change and an accusative direct object.

- (11) a. Siirs-i-n kirja-a.
 move-PAST-1SG book-SG.PART
 ‘I moved the book.’ [entailed change; no particular goal state]
- b. Siirs-i-n kirja-n pois ...
 move-PAST-1SG book-SG.ACC away
 ‘I put away the book ...’ [entailed change and particular goal state]
 (Google search for “siirsin kirjan”)

The data in (12) tell a similar story. *Leikata* ‘cut, mow, trim’ certainly entails some change in its theme in its ‘cut’ sense, but it does not entail change to a particular degree on its own, thus often taking partitive direct objects. This is exemplified in (12a), where the vagueness of the result of the cutting event is made explicit by the phrase *mutta ei siitä tullut mitään* ‘but nothing came of it’. However, when combined with a result phrase, the verb takes an accusative direct object, as in (12b). In that example, which comes from a story about an illusionist cutting people in half, we again have what may be viewed as a composite predicate entailing quantized change; the result phrase *kahtia* ‘in two’ specifies the requisite degree to have been attained, corresponding to the state of being in two pieces. Thus, the direct object is accusative, as predicted by (10).

- (12) a. Poju vain vääns-i, taitto-i ja leikkas-i paperi-a
 boy.NOM just twist-PAST.3SG folded-PAST.3SG and cut-PAST.3SG paper-SG.PART
 mutta e-i sii-tä tullut mi-tään.
 but not-3SG it-ELAT come-PASTPRTC anything-SG.PART
 ‘The boy just twisted, folded and cut the paper, but nothing came of it.’
 [entailed change; no particular goal state] (Google search for “leikkasi paperia”)
- b. ...leikkas-i hei-dät kahtia
 cut-PAST.3SG she/he-PL.ACC in two
 ‘... [the illusionist] cut them in two...’
 [entailed change and particular goal state] (Google search for “leikkasi kahtia”)

Unfortunately, (10) faces at least two significant challenges. First, some PFC predicates, like *loukata* ‘injure’, do not themselves specify a particular degree of change to be attained, but

fective aspect or a quantitatively indeterminate theme. For example, (3b) modified so that *pallo* ‘ball’ had partitive case could be interpreted as, ‘Pekka was kicking the ball back’.

often have accusative direct objects nonetheless, as in (2b) and (9). In (2b), for instance, there is no lexically specified degree of injury entailed, so the predicate does not entail an event of quantized change, but the direct object is accusative, counter to (10).

The second problem is that predicates that don't themselves entail any persistent change in their themes can sometimes have accusative objects, even in the absence of a result phrase. Consider (1). Like English *shake*, the verb *ravistaa* 'shake' does not itself entail scalar change to a particular degree. Thus, in accordance with (10), *ravistaa* typically has partitive objects, as in (1a), where the object *purkki* 'can, canister' is partitive. There are, however, certain instances in which *ravistaa* has an accusative direct object, as in (1b), and such examples are problematic for (10). Given that *ravistaa* does not entail quantized change, according to (10) we should expect its object in (1b), *matto* 'carpet', to be partitive—just like the object in (1a). Instead, contra (10), the object is accusative. Nor is there an explicit result phrase in (1b) to bail (10) out.

By the same token, however, (1b) suggests that (10) is indeed on the right track. For unlike (1a), which bears no entailment of scalar change at all, (1b), as a whole, does in fact entail such change. Owing to the well-established convention of shaking carpets to rid them of foreign material, (1b), on its default interpretation, entails that the carpets in question ended up being free of foreign material (at least to some contextually relevant extent) as a result of the shaking event described. In scalar terms, (1b) entails that the carpets traverse a scale of cleanness (or something like it) to a contextually relevant degree on that scale. Thus, (1b) all but aligns with (10); we have entailed change to a particular degree, and the object is accusative. The problem for (10) is simply that the verbal predicate *ravistaa* itself does not entail such change, as shaking does not necessarily involve any persistent change whatever. Rather, in this case, the scale and goal degree are provided not by lexical entailments but by context and convention.

The gruesome data in (13) present an analogous pattern. *Hakata* 'beat, hit repeatedly' does not entail any change in its theme, and, in line with (10), typically takes partitive direct objects, as in (13a) (direct object: *mies* 'man').² To be sure, our world knowledge suggests that beating something with an iron pipe is likely to engender change in that thing, but change is not an entailment of the predicate. The problem for (10), then, lies in the abbreviated headline in (13b), where we have the same predicate and the same direct object, but the direct object is accusative. Here, there is an entailment that the man was harmed to a particular, contextually relevant degree, whereas (13a) bears no such entailment. As with (1b), we have change to a contextually relevant degree (in this case, on a scale of physical harm) and an accusative direct object. And again the requisite degree is supplied not by the predicate itself but by context and convention: striking a person repeatedly comes with a conventionalized intended result of causing the person significant physical harm, which is realized in (13b).

- (13) a. Kaksikko hakkas-i mies-tä rautaputke-lla
 twosome.NOM beat-PAST.3SG man-SG.PART iron pipe-SG.ADESS(INSTR)
 pää-hän.
 head-SG.ILLAT
 'The twosome beat the man on the head with an iron pipe.'
 [no entailed change in theme] (Google search for "hakkasi miestä")

²It should be noted that the direct object of *hakata* can be accusative even in the absence of entailed change in the special case in which the theme of the event is inalienably possessed by the agent, as in: *hakkasi päänsä pöytään* 'he banged his head against the table'. I do not at present have an explanation for this restricted type of usage.

- b. ...Kahdeksan nuor-ta hakkas-i mie-hen ...
 eight youth-PL.PART beat-PAST.3SG man-SG.ACC
 ‘...Eight youths beat a man up ...’
 [entailed change and particular goal state] (Google search for “hakkasi miehen”)

Taking all of this together, it seems that (10) is a step in the right direction, but clearly in need of revision. The problem is in the requirement that lexical entailments do all the work in specifying the nature of the requisite change. In the next section, I provide a solution to this problem with two key features. First, I adopt a broadly Kratzerian 2004 view of the PA distinction among PFC predicates, whereby direct-object case (in particular, accusative case) has truth-conditional force. Second, I allow this truth-conditional force to be sensitive to context and convention.

4 The Solution: Standard Change

The basic idea that Finnish direct object case is not just a reflex of lexical entailments is not without precedent. Kratzer (2004), building on Ramchand’s (1997) work on Scottish Gaelic, makes an argument along these lines. The central idea, similar to the one I will propose here, is that there is a verbal inflectional operator [telic], “that can construct telic predicates in interaction with the lexical meanings of verb stems, rather than merely selecting predicates that are already telic” (Kratzer 2004: 397). For example, Kratzer takes English *climb* to denote a relation that holds between an individual x and an event e just in case e is an event of climbing x , whether or not some culmination is reached. *Climb* on its own, then, does not entail a telic climbing event. When combined with [telic], however, the resulting relation, approximately speaking, is one that holds between x and e just in case (i) e is an event of climbing x and (ii) for every “band of equal elevation” x' of x , there is a relevant subevent e' of e such that e' is an event of climbing x' . In other words, whereas *climb* on its own is concerned with events of climbing something, *climb* + [telic] concerns events of traversing every level of elevation on something through climbing.

In Finnish, Kratzer claims, the [telic] operator is linked to accusative direct objects. More specifically, her claim is that while accusative case-marking on a direct object is uninterpretable, it can only be checked by a phonologically null verbal inflectional head bearing the [telic] operator. So, for Kratzer, accusative case-marking does not itself have truth-conditional import, but reflects agreement with a verbal inflectional head that does. As for partitive case-marking on direct objects, Kratzer claims that it, too, has a (phonologically null) verbal inflectional counterpart, but that both are uninterpretable. That is, for Kratzer, partitive case-marking on direct objects has no truth-conditional force.

Kratzer’s [telic] operator is intended to reflect the view (espoused herein) that the truth conditions accompanying the use of an accusative direct object are context-sensitive, so that,

[c]ulmination conditions for verbs built from atelic stems could be inferred using general cognitive principles, rather than relying on knowledge of lexical meanings [...] Any transitive process or activity verb [...] would be expected to combine with [telic], as long as suitable measures for the success of the events described could be associated with the verb’s direct object, often in interaction with contextually provided information. (Kratzer 2004: 395)

Approximately speaking, then, Kratzer’s analysis might be applied to the data in (1) as follows.

In (1a), the direct object is partitive, suggesting the absence of the [telic] operator higher up in the syntax, and thus there is no entailment of telicity in the event description. With the accusative direct object in (1b), however, the [telic] operator must be present to check the case, thus we have not only an event of shaking but a telic event of shaking. And the “culmination conditions” for the telic event—in this case, becoming clean to a contextually sufficient degree—needn’t be lexically specified by the predicate *ravistaa* ‘shake’, but can be determined via associated conventions and context, as desired. At the same time, the accusative case is only felicitous insofar as “suitable measures for success of the events described could be associated with the verb’s direct object,” explaining the example in (14): shaking one’s hand has no conventionally associated culmination, so *ravistaa* is less amenable to having the accusative-marked *käsi* ‘hand’ as its direct object.

- (14) #Ravist-i-n käde-n.
 shake-PAST-1SG hand-SG.ACC
 # ‘I shook my hand (out).’ (Kiparsky 1998:(55c), felicity judgment in the original)

At this level of discussion, Kratzer’s analysis seems to give us what we want: it acknowledges the context-sensitivity of the PA distinction and accords with the evidence that, even holding nominal semantics fixed and ignoring cases of imperfective aspect, the lexical entailments of a verb (or in Kratzer’s framework, verb stem) cannot fully determine the case of its direct object. But the preceding overview of Kratzer’s analysis glosses over some significant problems for the account. Though the account faces multiple challenges (Kiparsky 2005),³ I will focus on one presented by PFC predicates, in keeping with the scope of this paper.

Kratzer (2004) offers (15) as the definition for [telic]. The operator maps a given relation R between individuals and events (i.e. for Kratzer, a verb meaning) to a relation between individuals and events, and the resulting relation holds between an individual x and event e iff $R(x)(e)$ and an additional condition is met. The additional condition is that there is some function f that maps x to a “suitable measure” associated with x for determining the “success of the event described,” such that for every part x' of $f(x)$ there is a part e' of e such that $R(x')(e')$. Though its precise role is not spelled out, the predicate **measure** is presumably Kratzer’s means of ensuring that for any eligible f , $f(x)$ is a contextually suitable measure for the event.

- (15) $\llbracket \text{telic} \rrbracket = \lambda R \lambda x \lambda e [R(x)(e) \ \& \ \exists f [\text{measure}(f) \ \& \ \forall x' [x' \leq f(x) \rightarrow \exists e' [e' \leq e \ \& \ R(x')(e')]]]]$

The purpose of the f component is to account for cases in which the theme x itself is not the measure for an event. Kratzer’s example to this point is the verb stem *shoot*, which she takes to

³Consider, for example, the problem for Kratzer’s account posed by the following headline (Paul Kiparsky, personal communication):

- (i) Poliisi ampu-i naise-n ja itse-ä-än.
 police.NOM shoot-PAST.3SG woman-SG.ACC and himself-PART-REFL (POSS)
 ‘Police officer shot woman and himself.’

In this example, we get a different aspectual force for each of the two conjuncts. The first direct object, *naisen* ‘woman’, is accusative to indicate that the shooting ended in death. The latter direct object, *itseään* ‘himself’, is partitive and implicates that there was no such result for the police officer’s shooting at himself. (These interpretations are confirmed by the story beneath the headline: “The woman died immediately. The man is seriously injured in the hospital.”) But if [telic] must be present to check the case of the first conjunct and is to combine with the verbal predicate *ampua*, then there is no way to explain the atelic aspect for the second conjunct.

mean ‘shoot at’: “If you shoot at a bear,” claims Kratzer, “it’s not the bear himself, but possible paths leading from your gun to the animal that provide measures for success. You shoot the bear, it seems, just in case you shoot at all parts of some path leading to him” (394). In other words, for Kratzer the truth conditions of *shoot* + [telic] + obj are something like: the theme x was shot at in e , and there is some f such that $f(x)$ is a path from the shooter to x and every part of $f(x)$ was shot at in some part of e .

Whether or not these truth conditions are correct for English *shoot* + [telic] + obj, they are not for Finnish *ampua* ‘shoot’ with an accusative direct object. *Ampua* with an accusative direct object is understood to mean not just that the theme was successfully hit, but that the theme underwent a particular change as a result—most canonically, death (Kiparsky 1998).⁴ (15) provides no way to capture this. According to (15), and as depicted in (16), [telic] + *ampua* denotes a relation that holds between an individual x and an event e iff (i) x is shot at in e ; and (ii) there is some contextually suitable measure $f(x)$ such that every part of $f(x)$ is shot at in some part of e .

$$(16) \quad \llbracket \text{telic} + \textit{ampua} \rrbracket = \lambda x \lambda e [\text{shoot.at}(x)(e) \ \& \ \exists f [\text{measure}(f) \ \& \ \forall x' [x' \leq f(x) \rightarrow \exists e' [e' \leq e \ \& \ \text{shoot.at}(x')(e')]]]]$$

Nowhere in this denotation is there a requirement of change in x —let alone change to a particular goal state. Data like (13b) pose a similar problem, for according to (15), (13b) entails only that the relevant eight youths beat the man in question and beat every part of some contextually suitable measure $f(\mathbf{man})$. By Kratzer’s account, then, there is no entailment of change in the man, contrary to fact. More generally, any PFC verb that does not itself entail change but is amenable to accusative direct objects presents an analogous challenge for Kratzer’s account.⁵ I will now present an analysis that addresses this fundamental problem, while retaining the advantages of Kratzer’s account, beginning with with the definitions in (17) and (18) (the latter based on Beavers’ (2011) operator *result'*):

- (17) For any entity x , scale s , and point in time t , $m(x, s, t)$, where defined, provides the degree possessed by x on s at time t . If x possesses no degree on s at time t , $m(x, s, t)$ is undefined.
- (18) Let x be an entity, s be a scale with partial order \leq_s on the degrees of s , d be a degree on s , and e be an event with beginning time $t_{e.beg}$ and end time $t_{e.end}$. $res'(x, s, d, e)$ iff:
 $m(x, s, t_{e.beg}) <_s m(x, s, t_{e.end}) \ \& \ d \leq_s m(x, s, t_{e.end})$

The definition in (18) says that for any entity x , scale s , degree d on s , and event e , $res'(x, s, d, e)$ is true just in case (i) x possesses a greater degree on s at the end of e than at the beginning of e ; and (ii) the degree on s that x possesses at the end of e is at least as great as d . With that in mind, I now define the crucial notion for my analysis, *standard change*:

⁴User Jukka Aho, on the Web site finlandforum.org, makes this point well. In response to the question, “How would you say, ‘I shot a walrus’s flipper?’” the user writes: “I’d say ‘Minä ammuin mursua evään.’” There, *mursu* ‘walrus’ is partitive and *evä* ‘flipper’ is in the illative case. (Literally: ‘I shot a walrus into the flipper’.) The user continues: “A ‘complete action’, where you’d get to use the genitive (accusative) case, could be something as horrible as ‘Minä ammuin mursun evän verisiksi riekaleiksi.’” Translation: ‘I shot a walrus’s flipper into bloody shreds’.

⁵Stative predicates also present a challenge for Kratzer, who claims that the reason that *omistaa* ‘own’ typically takes accusative objects is that owning x means owning its parts. In contrast, she claims, verbs like *rakastaa* ‘love’ take partitive objects because loving x doesn’t entail loving its parts. *Tietää* ‘know (superficially, of the existence of, etc.)’ presents a clear counterexample to the alleged pattern. Knowing something in the *tietää* sense does not entail knowing that thing’s parts, analogous to the case of *rakastaa* ‘love’, but its objects are canonically accusative.

- (19) For any event e with theme x , x undergoes *standard change* over the course of e iff:
 $\exists s[\mathbf{measure}(s) \ \& \ res'(x, s, g, e)]$, where: (i) g is a contextually determined goal degree (*standard*) on s ; and (ii) for any scale s' , $\mathbf{measure}(s')$ is true just in case s' meets certain contextually determined criteria.

In prose, (19) says that a theme x of an event e undergoes standard change over the course of e iff there is some scale s meeting certain contextually determined criteria such that x goes from being at some degree less than g on s at the beginning of e to being at (or beyond) g at the end of the event, where g is a particular, contextually determined goal degree on s .

There are two important points concerning this definition that merit discussion. The first is the treatment of the scalar component—a variation on Kratzer’s (2004) implementation of measures of telicity. The **measure** predicate allows for there to be certain constraints on the nature of the requisite scale, depending on context. Relative to the event described in (13b), for instance, one such constraint might be that any suitable scale consists of degrees of physical harm. At the same time, however, standard change does not require that the exact nature of the requisite scale be fully specified in every case. The definition allows for such flexibility in order to handle examples like (3b), where the truth-conditions primarily concern the location of the relevant ball at the beginning and end of the event described, saying little to nothing about the exact path the ball traveled along the way.

Second, in saying that g and the properties of s are “contextually determined,” I don’t mean to downplay the role of lexical entailments. The point here is simply that, in addition to lexical entailments, other contextual considerations are taken into account in their determination. Owing the idea of contextually relevant degrees on a scale to Kennedy (2007) and Kennedy and Levin (2008), I borrow their terminology for such degrees and refer to the contextually determined goal degree as the *standard* for the event described, hence the term *standard change*. This is not meant to be a wholesale adoption of those authors’ framework or theory of standards, but a recognition that the notion I intend here is at least in spirit the same. Given this definition of standard change, I present the following generalization:

- (20) **Revised Generalization** Let v be a Finnish PFC verb with denotation ϕ . Accusative case-marking on the direct object of v entails the following about the event being described e and its theme x :
- (i) $\phi(x)(e)$; and
 - (ii) x undergoes standard change over the course of e .

Partitive case-marking on the direct object, however, entails only condition (i).

In brief, the generalization is that accusative case-marking on the direct object of a PFC verb entails standard change in the theme, whereas partitive case-marking does not. Of course, as with other context-sensitive expressions (see e.g. Roberts 2010), accusative case-marking on the direct object of a PFC predicate is only felicitous if the speaker and hearer are sufficiently confident that the hearer can determine the intended values of the contextual parameters involved in the expression—in this case, properties that must hold of the requisite scale s and the value of the goal degree (standard) g . With that in mind, let’s see how this works with the data discussed thus far, beginning with (3).

The fact that the verb *potkaista* ‘kick’ typically takes partitive direct objects, even when the action of kicking is taken to be “completed” in the event described, accords with (20): *potkaista* itself does not entail change in its theme, and is not conventionally associated with events

of scalar change culminating in the attainment of a particular goal degree. Even if a kicking event involves the theme moving to a new location, there's generally no telling from lexical entailments, convention, or context precisely what that new location would be. Hence, using accusative case-marking on the object, which presumes that the hearer will be able to discern the requisite goal degree (corresponding to a particular goal state), is generally infelicitous for *potkaista*, and the verb typically takes a partitive direct object. This is what we find in (3a), where the entailment is simply that the ball was kicked. However, if the verb occurs with a lexically specified goal state, an accusative direct object is felicitous and entails that the goal state was met as a result of the kicking event. This is exemplified in (3b): the accusative case on the direct object entails standard change, and the adverb *takaisin* 'back', together with context, furnishes the value of the goal-degree parameter g (which, in this case, corresponds to being at a particular location) so that the VP as a whole entails that the ball in question was kicked and ended up back at its prior point of origin.

Like the previous generalization, (20) also readily handles the data in (12). The verb *leikata* 'cut, mow, trim' does itself entail change in its theme, but not scalar change to a particular degree. Thus, like *potkaista*, it can have a partitive direct object even with perfective aspect, where the entailment is that the theme is cut but not necessarily with a particular contextually discernible outcome, as in (12a). An accusative direct object, however, entails that the theme is cut and with a particular contextually discernible outcome, as in (12b), where the result phrase *kahtia* 'in two' supplies that outcome. In scalar terms, we have an event of standard change: it is to be understood from (12b) that the theme traversed some scale consisting of at least two degrees—one corresponding to being in one piece and the other (the goal degree) to being in two—and that the latter degree was attained by the theme by the end of the event.

Now, in the case of (3b) and (12b) the meaning of the result phrases bears most of the burden of supplying the goal-degree parameter g , and these data presented no problems for our previous generalization. But what about instances in which there is no lexical material to offer a goal degree or specify constraints on an appropriate scale? Unlike the previous generalization, (20) is designed to handle such instances as well. Consider again example (1). As noted before, *ravistaa* 'shake' certainly does not entail a scalar change on its own, and for most themes, it is not conventionally associated with any particular result. Thus, as with *potkaista*, the direct objects of this verb are usually partitive, as in (1a).⁶ But, as noted above, shaking a carpet does have a conventionally associated goal—that of the carpet being sufficiently clean. Accordingly, one can mark the noun *matto* 'carpet' with accusative case-marking as a direct object of *ravistaa* and be reasonably confident that the hearer will discern that the requisite goal degree lies on a scale of cleanness and corresponds to being clean to a contextually sufficient degree. That is, despite the fact that *ravistaa* cannot itself offer up the requisite goal state or constraints on a viable scale, context and convention can, as provided for by (20). Thus, we have instances like (1b), where the accusative case on the direct object, together with context, entails that the carpets in question were made clean to a contextually sufficient degree in the shaking event.

An analogous argument accounts for the data for the verb *ampua* 'shoot at' in (8) and for the verb *hakata* 'beat, hit repeatedly' in (13). In both instances, the verbs do not themselves en-

⁶Indeed, whereas a Google search for "ravist-i purkki-a" (shake-PAST.3SG can-SG.PART) returns 398 results at the time of this writing, a search for the same phrase with *purkki* marked accusative ("ravist-i purki-n") returns only one, and it is a false positive. In that example, the case marking corresponds not to accusative but rather to genitive case—the two forms being identical for *purkki* in the singular in such an environment. (The full VP in the example is *ravisti purkin sisällön roskakoriin*: '(he) shook the contents of the canister into the wastebasket.')

tail change in the theme x (hence the partitive-marked objects in the (a) sentences) but do have conventionally associated results—namely, death and injury to a contextually significant extent, respectively. Thus, the verbs are amenable to accusative-marked objects, as in the (b) sentences, which entail that the requisite goal degrees (corresponding to death and a contextually significant extent of injury, respectively) were attained by the themes in the events described. The present account also explains the doubly troubling example in (4) along similar lines. Like *ampua* and *hakata*, verb *puukottaa* ‘stab, knife’ does not itself entail change in its theme, even with perfective aspect. Hence, although the headline describes what is, in a sense, a “finished action,” it is not surprising to find partitive case-marking on the object *naista* ‘woman’. Accusative case-marking would have entailed that the woman in question underwent a standard change over the course of the event—conventionally, death (parallel to *ampua*). With the case-marking as it stands, there is no such entailment. (And, as reported in the story from which the headline was drawn, the woman in question was not killed in the attack.)

The revised generalization also accounts for the data in (2). *Loukata* ‘injure, wound, hurt’, in its physical injury sense, does entail scalar change in its theme along a scale of injury (barring imperfective aspect), but it does not itself specify a particular degree of injury (goal state) to be attained. In keeping with the revised generalization, an accusative direct object entails that the theme becomes injured to a contextually determined standard degree in the event described, and a partitive direct object bears no such entailment. So in (2b), with its accusative direct object, we get the entailment that the midfielder injured his knee to a contextually determined standard degree (at least), whereas in (2a), the entailment is only that there was a “slight” injury to the foot, not necessarily to the extent that would meet the standard for injury in the context of utterance. One gets the sense that the injury was too minor to be considered a “true” injury, consistent with the adverb *hiukan* ‘slightly’.

Before moving on to the next section, it is worth drawing attention to an important feature of the generalization in (20). Namely, while partitive case-marking on a direct object does not entail that the event described is an event of standard change, it also does not entail that the event described is not an event of standard change. As Kiparsky (1998) notes in reference to example (21), the sentence, with its partitive object, “is non-committal as to what happened to the bear.” That there was no standard change, then, is a (defeasible) conversational implicature—had there been a standard change, an informative speaker would likely have indicated as much by marking the direct object with the accusative case. Heinämäki (1994) observes the same dynamics with respect to the non-PFC predicate *lukea* ‘read’: with a partitive object there is an implicature, but not an entailment, that not all of the book (or contextually relevant subpart thereof) was read.⁷

- (21) Ammu-i-n karhu-a.
 shoot-PAST-1SG bear-SG-PART
 ‘I shot (at) the (a) bear.’ (Kiparsky 1998:(1a), abbreviated)

To summarize, I have argued for the notion of standard change—in essence, a context-

⁷Multiple related facts align with the position that partitive and accusative case-marking stand in a truth-conditional hierarchy. Hakulinen and Karlsson 1979, for instance, find that partitive direct objects are significantly more frequent in Finnish than accusative ones, suggesting that the latter is the marked form. Moreover, Vainikka (1989) claims that the partitive case is the default objective case in Finnish, and Anttila and Fong’s (2000) work suggests that it is the default case in Finnish partitive constructions, where it alternates with the elative case.

sensitive version of quantized change—to account for the PA distinction among Finnish PFC predicates. Like Kratzer (2004), I argued that the PA distinction is sensitive to context and is not merely a matter of lexical entailments. In particular, I claimed that accusative case-marking on the direct object of a PFC predicate contributes the entailment that the theme of the event described undergoes standard change over the course of the event. Partitive case-marking, on the other hand, bears no such entailment. Whereas PFC predicates cause trouble for other analyses, the present account handles them in a straightforward and principled manner.

5 Answers to Potential Objections

One might object to the generalization in (20) on the grounds that it leaves too much room for context to influence the values of the parameters of an event of standard change. It's certainly true that some verbs are rather choosy about the requisite scales and goal degrees that make for events of standard change. *Tappaa* 'kill' is a clear case:

- (22) Tapo-i-n karhu-n.
 kill-PAST-1SG bear-SG.ACC
 'I killed the bear [dead].'

Example (22) almost certainly would not be interpreted as 'I killed the bear clean/in half/onto the table/...'—rather, the standard change here is death. Yet, in principle, (20) allows for such interpretations. How, then, can they be ruled out?

One way to handle this would be to revise the account to include the stipulation that where the relevant predicate lexicalizes a scale and goal degree, that scale and goal degree must serve as the corresponding parameters of the entailed standard change. However, general pragmatic principles obviate the need for such a revision. The argument is as follows. *Tappaa* lexicalizes a scale and standard (death)—any perfective use of the verb entails that the theme dies as a result of the event described. In turn, any perfective use of the verb is an event of quantized change. Given that this is the case (barring instances involving secret codes à la "the eagle has landed") it's hard to imagine why a rational speaker would use (22) to assert some particular change *C* in the bear other than death. Let's divide possible contexts of utterance into two general classes: one in which the death of the bear per se is relevant, and one in which it is not. If we are in a scenario of the latter kind, the speaker of (22) would be wasting her words to begin with and be better off stating directly that *C* obtains. Now to the scenarios in which the death of the bear per se is relevant. If the speaker and hearer have no mutual expectations about the death of the bear leading to or correlating with *C*, the use of (22) to communicate that *C* obtains is bound to fail; the hearer would have no grounds for believing that she is expected to conclude that *C* obtains from the death of the bear. If the speaker and hearer mutually know that killing the bear would lead to *C*, then the speaker can simply rely on the hearer's capacity to infer that *C* obtains, requiring no deviation from the canonical truth conditions of (22). As far as I can tell, then, the circumstances that are most amenable to using (22) to assert that *C* obtains would be those in which the speaker and hearer have a mutually shared belief that killing the bear may well bring about *C*. But even then the hearer would have no way to be sure that the speaker was asserting anything other than a successful killing of the bear, and upon hearing (22), would be perfectly justified in asking (in Finnish, of course) "And?" Thus, though the accusative case-marking in (22) technically allows for an entailment of standard change in the bear other than death, general pragmatic principles seem to rule it out, at least in the vast majority of

circumstances. More generally, and by the same reasoning, whenever we have a PFC predicate with an accusative direct object, and that predicate itself supplies a suitable scale s and goal degree g , the event of standard change entailed by the corresponding VP will nearly always be one such that s and g provide the scale and goal degree parameters. Thus, the flexibility needed to account for data like (1) and (13) does us no harm in stricter cases like (22), and there is no need to make stipulations for such cases.

Nonetheless, one might still object to the revised generalization on the grounds that some PFC verbs, like *suudella* ‘kiss’, seem to never take accusative direct objects. From this it may appear that we need to place tighter restrictions on the revised generalization, which at present bars no PFC verbs from occurring with accusative direct objects. But, again, pragmatic principles explain such patterns. The reason that speakers “never” use accusative direct objects with such predicates is because, with respect to those predicates, the speaker and hearer generally cannot be confident that they will converge on the requisite values for the contextual parameters of a standard change. Kissing something, for instance, could engender multiple possible changes in that thing, or perhaps no persistent change whatever, making *suudella* far less amenable to accusative direct objects than PFC verbs that, with perfective aspect, entail standard change (e.g. *tappaa*) or are conventionally associated with standard change relative to certain themes (e.g. *ravistaa*). Of course, verbs like *suudella* very readily take accusative direct objects when the nature of the entailed standard change is made clear via a result phrase, as in the following macabre example from an anonymous reviewer:

- (23) Suutel-i-n häne-t kuoliaaksi.
 kiss-PAST-1SG he-SG.ACC dead-TRANS
 ‘I kissed him to death.’

Thus, the revised generalization must provide for even verbs like *suudella* to occur with accusative direct objects, which it does.

It should be clear from this discussion that despite the context-sensitivity of the notion of standard change, one can still make principled predictions about where to expect an accusative direct object with a PFC verb. Verbs with entailed or conventionally associated scales of change for their themes are especially amenable to accusative direct objects even without an accompanying result phrase because they require minimal contextual coordination concerning the scalar component of the relevant standard change. Verbs without this property, like *suudella* and *potkaista*, tend to occur with accusative direct objects under a narrower range of circumstances, such as when a result phrase specifies the nature of the standard change.

6 Conclusion

The Finnish PA distinction, with all of its wrinkles and complexity, has to date proven too unruly to be bound by a single, concise generalization. With that in mind, I set out to account for a subset of the data—namely, those VPs whose main predicates are PFC predicates—leaving nominal semantics and imperfective aspect aside. The data clearly provide evidence that the PA distinction among these predicates is not strictly a function of lexical entailments. Instead, the distinction revolves around a special kind of change that I have termed *standard change*, whereby a theme traverses a scale satisfying certain contextually determined constraints to a particular, contextually determined goal degree. My proposal, then, was that (i) accusative case-marking on the direct object of a Finnish PFC predicate contributes the entailment that

the theme undergoes standard change over the course of the event described by the VP; and (ii) partitive case-marking bears no such entailment. I further argued against the potential objection that the proposed generalization provides too much contextual flexibility; many of the constraints on the distribution of partitive/accusative case among PFC predicates can be explained by general pragmatic principles of coordination between interlocutors. It is hoped that the notion of standard change and the broader pragmatic framing of this analysis may be fruitfully applied to understanding related phenomena in other languages.⁸

There is of course much room for further research on the Finnish PA distinction. With respect to PFC predicates, for instance, while it is clear that context plays an important role in determining the distribution and entailments of VPs with accusative direct objects, it is less clear just how much contextual leeway speakers have. Certainly goal degrees are in some cases determined by context rather than simply being provided by scalar endpoints (cf. Kennedy and Levin 2008). Example (1b), for instance, does not entail that the carpets were perfectly clean at the end of the event described, just that they were clean to a particular, contextually determined extent. As for the scalar parameter, in the examples of standard change discussed herein, if the constraints on the scalar parameter were not offered by lexical semantics, then they were provided by a well-established convention, as in the case of *ravistaa* ‘shake, cause to move’ and *hakata* ‘beat, hit repeatedly’. Are there instances of accusative direct objects being used felicitously without appeals to lexical entailments or widely established convention? That is, are there circumstances under which very local contextual considerations are enough to make clear the nature of the entailed standard change? How much do individuals vary in terms of use of and tolerance for novel or highly context-dependent uses? Under what circumstances are novel uses conventionalized?⁹

Looking beyond the central issues of the present work, a full account must address not only other classes of verbs and the issue of compositionality, but also accusative case-marking’s effect on the interpretation of the direct object itself and its incompatibility with imperfective aspect.¹⁰ There may indeed be a single conception of boundedness or quantizedness that will capture all of the relevant facts. In any case, it is clear that a comprehensive account of the PA distinction will require close analysis of particular uses across a range of verbs and verb classes, and detailed explication of how different generalizations do or do not account for the data.

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⁸It seems, for instance, that the English directional particles like *up*, *out*, and *down* may serve much the same function as accusative case-marking on Finnish direct objects. Witness the difference between *shake* and *shake out*, *beat* and *beat up*, *cool* and *cool down*, and so on.

⁹A related matter is that it seems that in certain instances a direct object of a PFC verb may bear accusative case even without an entailment of standard change, if it is to be understood that a sort of ritual or procedure has been carried out in the event described (Arto Anttila, personal communication). Thus, for instance, a momentous event of two people shaking hands may at times be described via a VP with an accusative direct object, where the partitive is generally expected. I must leave these interesting cases for future research.

¹⁰An anonymous reviewer also points out that the analysis developed herein has not addressed the fact that the accusative case can appear on certain delimiting adverbials (see e.g. Maling 1993, Pereltsvaig 2000)—another important matter for future work.

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