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ORIGINAL PAPER

Complex Predicates, Aspect, and Anti-reconstruction

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Abstract This paper contrasts two families of approaches to certain affixal verb constructions in Japanese, with particular emphasis on the 'potential' construction. Scope facts in this construction have been offered as support for complex predicate analyses, in which there is no syntactic constituent consisting of the object and lower verb, to the exclusion of the potential head *-rare*. We provide a variety of arguments, primarily from aspectual modification properties, which strongly challenge this family of approaches and favor instead VP-complementation approaches in which the potential head selects a thematically complete VP complement. Finally, we show how the scope facts may be accommodated on such a viewpoint, drawing connections to similar properties with other restructuring configurations cross-linguistically.

Keywords Complex predicates · Reconstruction · Restructuring · Japanese · Aspect · VP-structure

1 Introduction

One widely-discussed property of complex nominative object constructions and some other affixal verb constructions in Japanese is that the (embedded) object must apparently take scope over the matrix verb, as indicated in (1) (cf. Koizumi, 1995;

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Sano, 1985; Tada, 1992; Takano, 2003 for a recent treatment and review of the literature).[1]

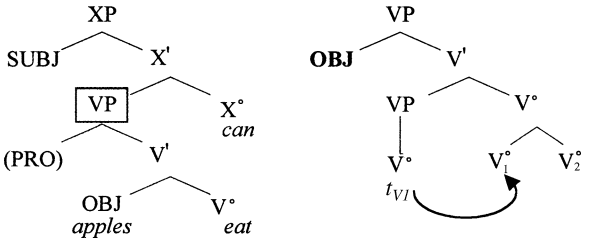
(1)a. John-ga migi-me-dake-ga tumu-re-ru
John-Nom right-eye-only-Nom close-can-Pres
'John can only close his right eye.' OK*only* » *can*; **can* » *only*

b. John-wa subeto-no ringo-o tabe-wasure-ta
John-Top all-Gen apple-Acc eat-forget-Pst
'John forgot to eat all the apples.' ∀ » *forget*; **forget* » ∀

As the paraphrase indicates, (1a) asserts that John only has the ability to close his right eye; we infer that his left eye is somehow stuck open. The lower scope reading for the object would be the assertion that John can wink with his right eye (i.e., close just his right eye, leaving the left eye open, though he has in principle the ability to close his left eye). This latter reading, unavailable in (1a), becomes available if the object is expressed with accusative case; hence the absence of a low scope reading is a property of the nominative object version of the so-called 'potential' construction. A similar situation arises in (1b), where the Japanese example lacks a reading that is available to the English paraphrase. Specifically, Japanese lacks the 'partial negation' reading (we take the verb 'forget' to contain negation as a component of its meaning) under which John may have eaten some, but not all, of the apples. The Japanese sentence can only mean something more like: ''All the apples are such that John didn't eat them''.

Accounts of these constructions may be divided into two families. On the one hand are VP-complementation accounts which posit a full syntactic VP structure for the lower verb, as in (2a). On the other hand are a variety of complex predicate accounts, in which the object is base-generated (''first-merged'') as the complement of a complex verb, either formed in the lexicon as a compound, or syntactically derived, as in the approach of Saito and Hoshi (1998) illustrated in (2b). We will focus on the Saito–Hoshi structure in this paper as these authors are explicit about their predictions about scope, though our arguments against their view will carry over to other theories sharing the same relevant assumptions.

(2)a. VP-complementation b. Derived complex predicate (V-V Incorporation)



[1] Abbreviations: Acc (Accusative), Dat (Dative), Gen (Genitive), Inf (infinitive), Nom (Nominative), Nomz (nominalizer), Obj (Object), Pl (Plural), Pot (Potential), Pres (Present), Prog (Progressive), Pst (Past), Sg (Singular), Subj (Subject), and Top (Topic). Note that the potential, sometimes glossed as 'can', has allomorphs: *-rare, -are, -re,* and *-e*.

Note that although Saito and Hoshi (1998) posit a VP complement to the potential verb, this VP is ''thematically deficient,'' containing only the embedded verb but none of its arguments or (as we shall see below) modifiers. Hence, for present purposes, this is equivalent to a base-generated V–V compound. Thus, the important distinction between the two families of approaches is whether or not the thematic object of the embedded predicate is ever syntactically an object of that predicate alone. It is in (2a), but in (2b) it is not.

Saito and Hoshi (1998), see also Hoshi (1999), Saito (2000) and Kato (2003) have argued that the absence of narrow scope for the object in (1) follows automatically from the complex predicate structure in (2b), whereas additional assumptions are necessary to accommodate the facts under a VP-complementation structure. If scope is held to be read off the syntactic structure, in (2b) there is no point in the derivation at which the object is asymmetrically c-commanded by the scope-bearing predicate, and hence no possibility for the object to scope under this predicate.[2] In contrast, in VP complementation approaches where movement is invoked to account for the wide scope of the object, it must be ensured that the object moves to a position c-commanding the higher predicate and that reconstruction of the object to its trace position is blocked. We refer to this as the anti-reconstruction property. One might therefore be tempted to conclude, with Saito and Hoshi, that the complex predicate approach is superior. We contend that this would be too hasty a conclusion. Specifically, we will argue in this paper in favor of VP-complementation in (2a). We offer new evidence that Japanese affixal verb constructions involve full syntactic VP-complementation, with particular reference to the 'potential' construction. In particular, we will argue for the syntactic presence of an object (trace) and VP modifiers in the lower VP, contrary to the view represented in (2b). This evidence will come from aspectual/Aktionsart properties that require a constituent consisting of the object and embedded verb, to the exclusion of the higher predicate. Such a constituent is only present in the VP-complementation structure (2a). After presenting this evidence, we will turn to a discussion of the anti-reconstruction effect. We will show that this effect is not a property specific to Japanese and, crucially, not specific to affixal verbs. Rather, it is a property of *restructuring* configurations, arising cross-linguistically even in languages where the two predicates do not form a morphological or morphosyntactic unit (Bobaljik & Wurmbrand, 2005). We show, by means of a brief comparison to German (Wurmbrand, 2005) that cross-linguistically where such anti-reconstruction effects arise, there are clear constituency and

[2] Not all complex predicate approaches take scope to be a reflection of syntactic structure. For example, discussing causatives, Manning, Sag, and Iida (1999) argue that:
''… it is essential that any lexical account of causatives make clear how it can … assign 'word-internal' scope to a quantified NP that appears external to the lexical causative. The account must predict that a quantified argument of the causative verb can be interpreted as having narrow scope with respect to the causative operator, even though there is no syntactic constituent to serve as the basis of that particular scope assignment'' (pp. 52–53).
In other words, Manning, Sag, and Iida take it as an important property of mono-stratal complex predicate analyses that they must be able to derive exactly the scope reading that we find to be excluded in the anti-reconstruction cases. If their proposals work out, then the anti-reconstruction puzzle is no more clearly solved on such complex predicate analyses than it is on a VP-complementation one. See also Yokota (2001) for a related criticism of Manning et al. (1999) from other kinds of Japanese data. Our aim here is to counter the argument that complex predicate approaches are superior in light of the scope facts; thus, any complex predicate theory that does not predict the scope facts is beside the point.

modification tests that indicate VP-complementation. Section 4 concludes the paper and offers some remarks on loose ends and directions for further research.

2 Evidence for Full-fledged VPs

2.1 Low Scope of Nominative Objects

Before proceeding to our new evidence, it is worth pointing out that there is some dissent in the literature concerning the full generality of the anti-reconstruction effects seen in (1). Nomura (2003, 2005) and Matsumoto (1996) note examples from complex predicate constructions otherwise like (1) but in which a nominative object can take low scope. An example from Nomura (2005, p. 176) is given in (3).

(3)

Taro-ga	koyubi-dake-ga	mage-rare-ru	no-wa
Taro-Nom	pinkie-only-Nom	crook-Pot-Pres	Nomz-Top
sit-te-ita-ga,	(kare-ga)	kusuriyubi-dake-mo	
know-Prog-Pst-but,	(he-Nom)	ring.finger-only-also	
mage-rare-ru	no-ni-wa	odoro-ita.	
crook-Pot-Pres	Nomz-Dat-Top	surprise-Pst	

'I have known that Taro can crook only his pinkie but I am surprised that he can also crook only his ring finger.'

This example is nicely set up in a way that the wide-scope reading for the nominative object over the potential (in either conjunct) would yield a contradiction. That is, it would mean something like: ''I have known that the only finger Taro can crook is his pinkie, but I was surprised that the only finger Taro can crook is his ring finger.'' Nomura reports that the sentence is held to be acceptable, with the (non-contradictory) meaning as indicated in the paraphrase. Thus, this is an example of a nominative object scoping under the potential verb, contrary to the generalization as reported by earlier authors.[3]

We do not attempt to solve the empirical distribution of wide and narrow scope nominative objects here, but simply note that the cases where low scope of the nominative is possible present a problem for complex predicate analyses (and any

[3] Another example making the same point with low scope of the universal *zenin-no* 'all' under the verb 'forget' (in contrast to (1b)) is given in (i), suggested to us by an anonymous reviewer.

(i)

Sensee-ga	zenin-no	namae-o	kaki-wasure-ta	
teacher-Nom	all-Gen	name-Acc	write-forget-Pst	

'The teacher forgot to write all the names.' $\forall$ » *forget*; *forget* » $\forall$

others) that derive wide scope object readings without exception.[4] In particular, if scope is read off syntactic structure, for at least those sentences (and/or speakers) in which a low scope reading for the nominative object is available, there must be an object trace in the embedded VP. For the remainder of the discussion, we lay aside Nomura's examples, and focus on arguments for VP-complementation even for those speakers/contexts in which the nominative object takes wide scope over the potential (see Bobaljik & Wurmbrand, 2005 for further details on the distribution of anti-reconstruction effects).

2.2 Aspectual Properties

Our first argument for full VP complementation comes from the behavior of PP modifiers that diagnose the telicity of the VP, as illustrated in (4). In English, an atelic event, such as the activity denoted by the intransitive VP 'read', is compatible with a durational PP 'for an hour', but is anomalous with a telic-diagnosing PP such as 'in an hour' as in (4a). However, the transitive VP 'read the book' denotes a telic event and thus (4b) is compatible with an *in* PP. Note that telicity is a property of VPs, not of verbs alone; that is, telicity is a function of properties of both the verb and the object (Dowty, 1979; see Rothstein, 2004 for an overview).

(4)a. John read #in an hour/for an hour.
b. John read the book in an hour.

The examples in (5) show that a similar contrast obtains in Japanese. Durational phrases marked with the postposition *-de* 'in' are compatible with telic VPs such as the accomplishment 'eat this pizza' in (5a), but not with activity-denoting VPs such as 'swim in the pool' in (5b). The latter express duration by a bare NP-time expression, which corresponds to *for* PPs in English.

(5)a. Taro-ga sono pizza-o 1-byoo-de tabe-ta [+telic: ✓in]
Taro-Nom this pizza-Acc 1-second-in ate-Pst
'Taro ate this pizza in one second.'
b. Taro-ga puuru-de 1-zikan-(*de) oyoi-da [−telic: * in]
Taro-Nom pool-in 1-hour-in swim-Pst
'Taro swam in the pool for/*in one hour.'

A potential complication arises in applying these tests to Japanese. Since bare plural nouns in English do not represent a specified quantity, they do not render a VP telic (compare (4b) to 'John read books #in an hour/for an hour' with a bare plural object). Since Japanese does not have determiners and does not have obligatory number marking, a sentence with a simple NP object should be potentially

[4] Nomura claims that low scope for the nominative object is in fact always permitted by the grammar, even in (1a), but that the reported judgments represent a strong pragmatically-based dispreference for that reading. Attributing the suggestion to Masatoshi Koizumi, Nomura suggests that the perceived unavailability of low scope is blocked by the availability of an unambiguous alternative: An accusative object would unambiguously signal low scope for the object; hence the accusative is a better representation for that scope. This consideration is less relevant in (3) since only the low-scope reading yields a non-contradictory reading. We note that the situation is complicated by the often (foot)-noted observation that wide scope for an accusative object is in fact possible ''when the object is stressed or focused'' (Nomura, 2005, p. 174); hence, strictly speaking, the accusative construction may not be unambiguous.

ambiguous between a singular and plural interpretation, only one of which should yield a telic VP. Luckily, this complication is a red herring. For the point we wish to make, it will be sufficient to show that certain sentences with a direct object can be interpreted as containing a telic VP, as in (5a).

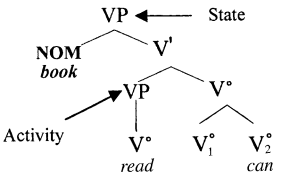
We may now return to the potential construction. The sentences in (6) admit of PP-modification with a *-de* phrase, which corresponds to English *in* PPs. We must therefore conclude that these sentences contain a telic VP, such as an accomplishment.

(6)a. Taro-ga hon-ga 1-zikan-de yom-e-ru
Taro-Nom book-Nom 1-hour-in read-can-Pres
'Taro can read the book in one hour.'

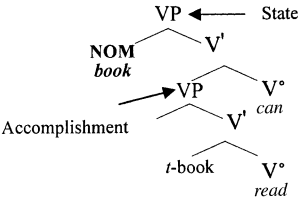
b. Taro-wa pizza-ga 1-pun-de tabe-rare-ru
Taro-Top pizza-Nom 1-minute-in eat-can-Pres
'Taro can eat the pizza in one minute.'

For the English paraphrases, this is straightforward: the accomplishment-denoting VP is the non-finite VP. However, for Japanese, only the VP-complementation structure includes an accomplishment-denoting node in the structures assigned to these sentences. This is illustrated in (7).

(7)a. Complex predicate structure



b. VP-complementation structure



Under both families of approaches discussed here, the higher VP denotes a state (by definition, atelic). This is confirmed by the appearance of nominative on the object—only stative constructions permit nominative objects in Japanese.[5] We therefore turn to the lower VP, where the two theories diverge.

In (7a)—the structure that would be assigned under Saito and Hoshi's complex predicate account—the lower VP does not contain a trace of the object and contains only the verb meaning 'read' or 'eat', denoting an activity. Since both the upper and lower VP nodes on this theory are atelic, these constructions should be incompatible with *-de* PP modification, contrary to fact.

The structure in (7b), on the other hand, is what would be assigned on a VP-complementation approach. On this approach, the embedded VP contains both the verb and the (trace of) the object. By virtue of the object trace, this VP qualifies as an accomplishment, just as a VP meaning 'read the book' or 'eat the pizza' is an accomplishment when not embedded in the potential construction (see (5a)). Since the sentences in (6) are acceptable, it must be this lower VP, with the object trace, that is being modified by the PP. The VP complementation approach thus makes the correct predictions regarding aspectual modifiers for this class of examples whereas

[5] It is not relevant here what the source of the nominative is. See Nomura (2005) for a review of recent proposals and arguments that nominative is not directly assigned by the stative verb.

it is not clear how the presence of these modifiers can be explained under a complex predicate approach.[6]

We can reinforce the conclusion that the lower predicate denotes a separate event and that modification of that event is possible by examining cases of multiple modifiers in a single potential construction. The examples in (8) illustrate acceptable instances of this.

(8)a. Taro-wa terebi-ga iti-nen-kan san-zikan mir-e-ru.
Taro-Top TV-Nom one-year-for three-hour watch-can-Pres
'For one year, Taro can watch TV for three hours.'

b. Taro-wa hon-ga hutu-ka-kan-no-aida
Taro-Top book-Nom 2-day-period-Gen-during
iti-byoo-de yom-e-ru.
1-second-in read-can-Pres
'For two days, Taro can read the book in one second.'

The example in (8a) shows that it is possible to have two durational modifiers of the same type in a single sentence. On the VP-complementation approach, this is because there are two events (contrast theories of complex predicate formation that involve event unification). Example (8b), like the preceding examples, uses a telic modifier to pick out the embedded VP including the object (which has moved to a more left-peripheral surface position). In both examples the first PP indicates the duration of the state denoted by the matrix predicate.

Note moreover that the neutral order of modifiers is that in (8), as predicted by the VP-complementation structure. Since modifiers in Japanese are left-adjoined (or in left-hand specifiers), their linear order reflects their hierarchical position, such that a matrix modifier will precede a PP that modifies the embedded VP alone. This is indeed borne out: The order in (8) is felt to be neutral, while reversing the order is held to be unacceptable as an unmarked, non-focus order, under the intended interpretation.

(9)a. (*)Taro-wa terebi-ga san-zikan iti-nen-kan mir-e-ru.
Taro-Top TV-Nom three-hour one-year-for watch-can-Pres
'For one year, Taro can watch TV for three hours.'

b. ??Taro-wa hon-ga iti-byoo-de
Taro-Top book-Nom 1-second-in
hutu-ka-kan-no-aida yom-e-ru.
2-day-period-Gen-during read-can-Pres
'For two days, Taro can read the book in one second.'

In sum, the aspectual modification properties seem to constitute a strong argument that the embedded verb and its object form a constituent, to the exclusion of the higher predicate, at some level of representation. In particular, this constituent is formed at a level of representation that reflects event or argument structure—the

[6] We therefore expect, of course, that aspectual modification will take a bare NP modifier and not a *-de* PP when the predicate embedded under the potential verb does not form an accomplishment when combined with the direct object. This is correct, as (i) shows. (As in English, the unacceptable forms in (i) and (5b) can be coerced into acceptability, to the extent that the VP can be forced in marked contexts to have an accomplishment reading, for example, when the activity itself is the goal or task.)

(i) Taro-ga terebi-ga 1-zikan-(noaida)/*-de mir-e-ru
Taro-Nom TV-Nom 1-hour-(during)/-in watch-can-Pres
'Taro can watch TV for one hour.'

embedded constituent denotes an event distinct from the event denoted by the matrix VP, as shown by the possibility of selectively modifying the two events in a single sentence. As (8b) in particular shows, despite its surface position, the nominative object contributes to the telicity of the embedded VP alone, thus licensing a lower telic modifier. Since the existence of such a constituent is precisely what the complex predicate theories deny, the facts seem to weigh strongly against such theories on this point. At best, such theories would have to treat the modification properties in a non-compositional manner by, for example, allowing duration expressions to modify non-constituents.[7] It is even then not obvious, however, how such approaches would fare with the ordering restrictions that follow directly from the syntactic structure.

2.3 Scope of Adverbials

While we feel that the preceding section firmly establishes the existence of the object trace in the lower VP, we turn in this section to further examples involving temporal modification which are given by Saito (2000) as an argument against VP-complementation. We argue that Saito's examples present an intriguing empirical puzzle, but that Saito's characterization of this puzzle is not quite correct, and that the data he presents in fact support VP-complementation over the complex predicate approaches.

Saito (2000) presents the pair in (10) as evidence that the lower VP in the nominative object construction is not only thematically deficient in the sense that it contains no trace of the object, but that it is radically empty, not even able to host temporal modifiers (in contrast to the claims we have made above). In describing these examples, Saito identifies two readings, which he associates with a scope interaction between the potential (can) and *dake* 'only', as indicated (though note that Takano (2003, p. 792) disagrees with the judgment, finding both sentences ambiguous). We have modified the paraphrases slightly, to try to capture this difference, at least in part.

(10)a. Taroo-wa me-o 0.001-byoo-dake ake-rare-ru.
Taro-Top eye-Acc 0.001-second-only open-can-Pres
'Taroo can open his eyes only for 0.001 seconds.'
Interpretation: sensitivity-to-light or special ability

b. Taroo-wa me-ga 0.001-byoo-dake ake-rare-ru.
Taro-Top eye-Nom 0.001-second-only open-can-Pres
'Taroo can only open his eyes for 0.001 seconds.'
Interpretation: sensitivity-to-light/*special ability

"sensitivity-to-light": *only* » *can*; He cannot open his eyes for long (e.g., because his eyes are very sensitive to ulatraviolet rays).

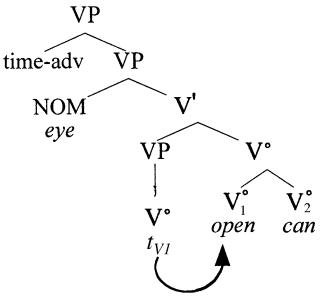
"special ability": *can* » *only;* He has a special ability to move his eyelids very quickly.

Recall that the Saito–Hoshi version of the complex-predicate analysis (given in (2b)) invoked a VP-complement in the syntax, but treated this VP as

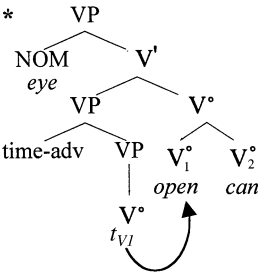
[7] The issue here is not merely allowing an adverbial element to modify a sub-part of a word. In the relevant examples, the constituent modified consists of the first part of the verb-word along with the nominative object, but to the exclusion of the potential affix.

thematically deficient—the nominative object is base-generated as sister to the V′ node dominating the complex predicate. Thus, (11a) is the structure Saito assigns to the ''sensitivity-to-light'' reading for example (10b). In order to exclude the special ability reading in the same example, Saito must block the adverbial expression from adjoining to the lower VP node, as indicated in (11b).[8]

(11)a. High adverb position



b. *Low adverb position



Whatever mechanism is invoked to exclude (11b), the conclusion Saito reaches is that modification of the lower VP is impossible, while in the preceding section, we have provided evidence for exactly the opposite conclusion, namely that temporal/aspectual modification of the embedded VP *is* possible. How can these positions be reconciled?

On closer inspection, we contend that the structures in (11) do not in fact characterize the two readings under consideration in the discussion of (10). In particular, Saito's structure in (11a) does not correspond to either of the relevant readings, whereas (11b) characterizes both the possible and impossible readings. Both readings in (10) involve adverbial modification specifying the duration of eye-opening (either maximal or minimal time open). A high durational modifier, modifying the entire VP including the potential, should instead modify the duration of the ability or potentiality. Such a reading can be made salient in examples like (12), where we imagine a context in which John has been given a special drug that will paralyze him in one hour (see also Matsumoto (1996, p. 121) for Japanese examples showing modification of the potential).

(12) For an(other) hour, John will be able to open his eyes …
(at which time the muscle relaxant will take effect).

We may thus agree with Saito that the two readings in (10) can be represented by *only* taking scope over or under *can* (see also Futagi, 2004; Harada & Noguchi, 1992), but the PP nevertheless modifies the lower VP in any event. That is, the scope of *only* must be divorced from the ''scope'' of PP modification, as sketched, for example, in (13) (we return just below to more discussion of the relevant meanings).

[8] Saito (2000, p. 93) blocks (11b) simply by an ad hoc stipulation: ''If there is an analogue of the thematic hierarchy for adverbials which forces them to appear in a position higher than the object, they too will have to [be merged–JDB/SW] in the projection of the higher verb.''

(13)a. *only* [*John can open his eyes for 0.001 seconds*]
b. *John can only* [t_{John}/PRO *open his eyes for 0.001 seconds*]

The crucial point for our purposes is that Saito's examples reinforce, rather than challenge, our conclusion from Sect. 2.2, namely, that it is possible to selectively modify a constituent consisting of the embedded verb plus its object, but excluding the matrix predicate, i.e., the accomplishment VP [*me-ga ake-*] 'eye-Nom open' in (10). Only this constituent describes the event that is modified by the durational PP in both the 'high' and 'low' scope readings (sensitivity to light and special ability, respectively), as characterized by Saito.

While Saito's examples thus do not challenge the VP-complementation hypothesis, and do not support the complex-predicate approach, there is nevertheless an intriguing puzzle in the contrast that Saito has presented: Why is the low scope of *only* associated with a PP impossible in the nominative object construction? We are not able to provide a definitive answer to this question, but we offer here a brief speculation that will relate this puzzle to the anti-reconstruction effects more generally and to the approach to anti-reconstruction to be discussed below.

Consider first in somewhat more detail what the two readings are supposed to mean. In point form, (14) elaborates on the meanings associated with the scopal difference suggested in (13).

(14)a. *only* » *can* (sensitivity to light)
presupposes: *John can [open his eyes for 0.001 seconds]*
asserts: *John does not have the ability to open his eyes for more than 0.001 seconds*
b. *can* » *only* (special ability)
presupposes: *John can [open his eyes for 0.001 seconds]*
asserts: *John has the ability to not do the following: open his eyes for more than 0.001 seconds*

We assume that, in a manner similar to (contrastive) focus, the semantics for a sentence containing *only* is roughly the presupposition that the sentence without *only* is true, along with the assertion that all alternative propositions are false (see Rooth, 1985). The set of alternative propositions (asserted to be false) is determined by replacing the focused element inside the proposition to which *only* attaches with possible alternatives. The scope of *only* is hence relevant to the determination of the 'size' of alternative propositions asserted to be false. As discussed above, under both readings we are interested in, the PP modifies the duration of the eye-opening, and not the duration of the ability. Thus, both readings require the focus part (the part that alters in the alternatives) to be part of the lower VP at some point. In (14a), where *only* takes the ability-denoting proposition in its scope, the assertion associated with *only* is thus that all propositions of the form [*John can open his eyes for X seconds*] where X is any time other than (or more specifically more than) 0.001 seconds are false, resulting in the meaning that John lacks the ability to open his eyes for more than 0.001 seconds. Thus, the sentence attributes an ability to John (the ability to open his eyes for 0.001 seconds), and simultaneously denies any other (i.e., greater) ability. In (14b), on the other hand, *only* scopes under the ability; hence the alternative

propositions which are asserted to be false are of the form [*(John) open his eyes for X seconds*]. In other words, it is asserted that John has the ability to *not* do the alternative propositions, resulting in the meaning that John has the ability to perform a skill (open his eyes for 0.001 seconds) and also has the ability to not open his eyes for a period more than a millisecond—an impressive accomplishment. If we are right, then the different readings are similar to the ambiguity seen in (15a).

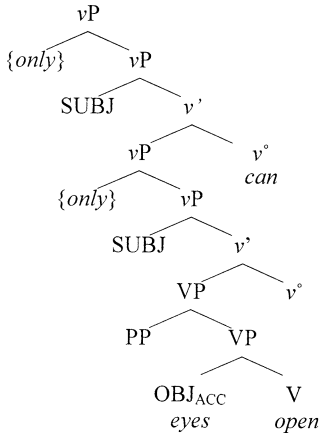
(15)a. (Using chopsticks) John can pick up only one grain of rice. (ambiguous)
b. (Using chopsticks) John can only pick up one grain of rice. (unambiguous)

In (15a), two readings are available, one in which John is quite weak and can lift maximally a single grain of rice (similar to the sensitivity to light reading) and another, in which John is asserted to be quite deft (similar to the special ability reading). This second reading is lost in (15b), when *only* is preposed. Both readings involve scope of the existential under the modal (neither asserts that there is a grain of rice, such that John can pick only it up), yet we may characterize them as involving a scope difference for *only*, with *only* scoping over the modal in (15b) and in the corresponding 'weakness' reading of (15a).

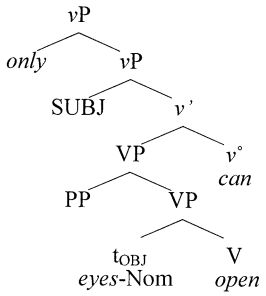
With this understanding of the different readings in mind, we may now offer a preliminary speculation about Saito's observation, i.e., why the special ability reading is lost in the nominative object construction. We suggest that the special ability reading, in that it asserts an ability to not perform some action, requires an agentive complement to the modal *can* (*-rare*). Why might this be relevant? As discussed in the next section, we adopt the general theory of anti-reconstruction proposed in Bobaljik and Wurmbrand (2005). As a part of this theory, Wurmbrand (2001) has argued that the potential construction is a member of the family of *restructuring* configurations, well-studied in Germanic and Romance. A key property of these configurations is that they lack an embedded case assigner (*v*P) and are thus represented as truncated, e.g., VP, complements. This is why the matrix predicate is responsible for case-assignment to the embedded object. In the case of the potential construction, it is the matrix predicate *-rare* that is stative and thus the source for nominative case.[9] In contrast to nominative, accusative on the embedded object is assigned by the lower predicate, hence the accusative object construction does involve (at least) *v*P complementation. That is, the apparent optionality of the nominative-accusative alternation on the embedded object is treated as an optionality in the selectional properties of *-rare*, which may take either a *v*P or a VP complement. The relevant structural differences are sketched in (16).

[9] Perhaps in conjunction with matrix T°, see Nomura (2005).

(16)a. *only* » *can; can* » *only*



b. *only* » *can; *can* » *only*



Now if *v*P is the source of agentivity (the locus at which Burzio's Generalization is stipulated), then the case of the embedded object will correlate directly with the agentivity of the embedded predicate. If there is no agentive *v*P in the embedded predicate, there will be no source for accusative and the embedded object will get nominative case from the matrix predicate. At the same time, if agentivity of the embedded predicate is a condition for the special ability reading, as we have suggested above, then the special ability reading will be unavailable when the object bears nominative case, even though the aspectual PP associated with *only* modifies the lower VP.[10] Such considerations do not apply when there is an embedded *v*P, hence low scope of *only* is possible, and the object will receive accusative case in its own predicate. A residual question for all analyses is how wide scope of *only* is possible in the accusative construction (given that Japanese is generally held to lack scope-changing QR), but as this is an open question on all analyses, we will not address it here.

To summarize, the main point of this section was to deflect an argument of Saito's against VP-complementation. Saito's claim was that a PP modifier could not take scope over just the embedded VP when the object bears nominative case. We have argued that Saito's representation of the relevant readings was inaccurate, and that the readings which he identified do in fact involve aspectual modification of the embedded VP alone. This turns the argument from PP modification around, with the examples now supporting a VP-complementation approach over a complex predicate one. An intriguing issue remains regarding the scope of *only* in Saito's examples, and we have offered a rather tentative suggestion as to how that might be addressed, though the correctness of this suggestion does not, so far as we can tell, bear on the main point of this section.

3 Anti-reconstruction and Cross-linguistic Evidence

In Sect. 2 we presented evidence for VP complementation in potential constructions with nominative objects. The evidence, we submit, is conclusive, on the assumptions that aspectual modification targets syntactic structure and that telicity

[10] As an alternative to agentivity, one could assume that the prejacent of *only* has to be a proposition and that the matrix *v*P is the minimal proposition when there is no embedded *v*P.

is a property of VPs, with the direct object playing a critical role. In so far as we understand the literature, these are standard assumptions. In a sense, though, we are now back where we started, with the scope puzzle in (1). If the anti-reconstruction effect is real (but see Sect. 2.1), the complex predicate approaches surveyed do not in fact resolve the puzzle—while they may succeed in deriving the scope properties, they make the wrong empirical predictions regarding aspectual modification.[11] At this point, we must set aside those theories on the grounds of descriptive adequacy and ask of the VP-complementation theories whether there is any non-stipulative means of ensuring anti-reconstruction. As it happens, one such theory is presented in Bobaljik and Wurmbrand (2005), which derives this result cross-linguistically. There it is argued that the anti-reconstruction effects seen in Japanese are also seen elsewhere as a general property of lexical restructuring configurations. We summarize the account briefly here.

In the interests of keeping examples as close as possible across languages, we move from the potential construction to predicates such as those meaning 'forget' in a variety of languages. This predicate is affixal in Japanese (the suffix *-wasure*) and shows the same anti-reconstruction property as *-rare*, as was shown in (1b), though it differs from *-rare* in not assigning nominative case to the object. As noted in Sect. 1, we follow previous literature in taking the semantic contribution of 'forget' to include negation, and hence to interact scopally with other scope-bearing elements. In English, this is shown by the apparent ambiguity in (17a), which may correspond to either (17b) or, with suitable intonation, (17c).[12]

(17)a. John forgot to close all the windows.
b. *forget* » ∀: It was about to rain, and John decided to close all the windows in the apartment. He closed the windows in the kitchen and the living room but forgot the window in the bedroom, which remained open.
c. ∀ » *forget*: … all windows remained open. (He didn't remember any of them.)

The 'partial negation' reading in (17b) is, however, absent in certain constructions involving 'forget' not only in Japanese (18a), where the predicate is affixal, but also in German (18b) and Itelmen (Chukotko-Kamchatkan, (18c)) where the predicate is a separate word.

(18)a. John-wa subeto-no ringo-o tabe-wasure-ta.
John-Top all-Gen apple-Acc eat-forget-Pst
'John forgot to eat all the apples.' ∀ » forget; *forget » ∀

[11] Recall again that we consider here only those complex predicate approaches that purport to solve the scope puzzle. There are versions of complex predicate proposals that do not make any predictions about scope or about aspectual modification (see Footnote 2); our criticism of these proposals is precisely that they make no predictions, where the VP-complementation approach makes, apparently, correct predictions (see especially the ordering restrictions discussed in Sect. 2.2).

[12] Entailment relations make it harder to demonstrate that (17c) arises as a distinct reading for (17a), as opposed to a special case of (17b). This turns out not to be relevant for the other languages under investigation—since they lack readings corresponding to (17b), the acceptable readings cannot be simply special cases of such a reading. Hence we ignore this confound for English.

b. weil er alle Fenster vergessen hat [t_{Obj} zu schließen]
since he all windows (Acc) forgotten has t_{Obj} to close
'since he forgot to close all the windows' ∀ » forget; *forget » ∀

c. t'-əntxa-čeʔn [miɬ okno-ʔn sop-es].
1Sg-forget-3Pl.Obj all window-Pl close-Inf
'I forgot to close all the windows.' ∀ » *forget*; **forget* » ∀

The common property of the configurations in (18) is that they involve lexical (as opposed to functional) restructuring configurations; that is, 'forget' is a lexical restructuring predicate (see Wurmbrand, 2001, 2004). Various properties of these examples provide independent diagnostics of their restructuring status. The German example in (18b) involves remnant extraposition, a known restructuring diagnostic, and the same scope properties obtain when other unambiguous restructuring diagnostics are applied, such as long passive. For Itelmen, restructuring is arguably diagnosed by long distance agreement—the verb meaning 'forget' is inflected for a third person plural object, that is, the object of the embedded predicate. Note importantly that the anti-reconstruction property disappears (low scope for the universal becomes available) when minimally different examples are used that are not restructuring predicates.

Cross-linguistically, then, the anti-reconstruction property is not specifically related to morphological complex predicates. In Japanese, we saw already that reconstruction readings are possible even when the upper predicate is affixal, i.e., when the object is accusative. This means that the affixal nature of the higher predicate alone is thus not a sufficient condition for blocking reconstruction.[13] The examples in (18b–c) from German and Itelmen show conversely that the anti-reconstruction effect arises even when the predicates involved do not demonstrably form a morphological unit. In the Itelmen example, the two predicates are not adjacent in the surface string, nor are the matrix and embedded predicate a morphological unit in the German example in (18b). This is shown again for German in (19), in which the relevant restructuring diagnostic is long passive, and the embedded predicate alone has undergone (remnant) topicalization.

(19) [$_{VP}$ Zu reparieren] wurden nur blaue Autos vergessen
to repair were only blue cars forgotten
'They only forgot to repair blue cars.'

In sum, being a morphological complex predicate is neither a necessary nor a sufficient condition for the anti-reconstruction effect to arise; the affixal nature of the potential verb in Japanese is an accidental property, not directly related to the scope puzzle. The proper generalization, as Bobaljik and Wurmbrand (2005) argue, is instead (20), where 'domain' is to be understood roughly as either 'phase' or clause, but with the important addition that the VP complement of a lexical verb is also held to constitute an independent domain.

[13] Once again, not all complex predicate theories take surface constituency to be the relevant level for the definition of complex predicate-hood; see e.g., Kathol (2000) for a treatment of German which takes the verbs in a restructuring configuration to constitute a complex predicate even when they do not form a morphological unit. Our arguments in this paper bear on constituency at whatever level is relevant for aspectual modification.

(20) *Agreement-Scope Correlation*

A DP may not be interpreted (for scope and binding) in a position lower than in the domain in which it undergoes Case/agreement-checking.[14]

Recall from the discussion in Sect. 2.3 that the key property of a restructuring configuration on the analysis in Wurmbrand (2001) is the absence of a case-assigning head (v) in the embedded predicate. It is this property that forces the object to raise and receive nominative in the matrix domain, from which it cannot reconstruct.[15] We refer the reader to Bobaljik and Wurmbrand (2005) for the details and important caveats. The results reported there complement the previous section in the following way. Section 2 of this paper showed that complex predicate accounts do not, despite initial appearances, provide an automatic solution to the anti-reconstruction puzzle in (1). The cross-linguistic evidence sampled in (18) points to a different account, one which hinges on restructuring and the syntactic difference between vP and VP complementation. Such an account is independently needed where a morphological complex predicate is not formed, and extends readily to the affixal verb constructions in Japanese.

Importantly, the proposal resting on (20) provides a succinct account of the anti-reconstruction effect while at the same time providing the right syntactic structures to accommodate the aspectual modification facts reported above. These aspectual modification properties are mirrored directly in the corresponding constructions in German, as detailed in Wurmbrand (2005). That the properties of the relevant constructions track restructuring diagnostics across languages in this way provides additional reason to pursue a unified account, such as we have offered.

4 Conclusion

The scope puzzle seen in certain Japanese affixal verb constructions turns out to be independent of the affixal nature of the verbs in Japanese, and thus not related to complex predicate formation in any obvious sense. Anti-reconstruction effects occur, tied to the restructuring property, in languages where it is not plausible to postulate the absence of an embedded VP with object-trace. Indeed, even in Japanese, positing an embedded VP consisting of the lower predicate plus its thematic object to the exclusion of the higher (affixal) predicate makes the right predictions about aspectual modification and event structure. The evidence we have presented above,

[14] The generalization in (20) places a limit on how far down a moved element may reconstruct. Questions therefore arise about long reconstruction, for example, in English expletive constructions. Unfortunately, the key data are disputed in the literature; for a brief discussion, see Bobaljik and Wurmbrand (2005, pp. 859–861).

[15] Takano (2003) argues for a prolepsis account of the Japanese facts, with the object represented twice, once in the matrix clause and again in the embedded clause (as *pro*), the connection between them being one of coindexation rather than movement. The arguments from aspectual modification presented here are neutral between a movement account and a prolepsis one—the arguments show only that the thematic object is represented in the lower VP. In the absence of evidence to the contrary, we maintain a movement account for Japanese in the text, since only the movement account appears to provide the basis for a unified account of the anti-reconstruction effect across Japanese, German, and Itelmen. For one thing, German is not a pro-drop language, so an account invoking *pro* is less obvious for German; for explicit arguments against a prolepsis treatment of Itelmen, see Bobaljik and Wurmbrand (2005).

tracking parallel evidence for German (Wurmbrand, 2005), shows that the lower VP can be selectively modified. In a given sentence, there are two separate events in restructuring constructions; events can differ in telicity, with the object contributing to the telicity of the lower VP alone. In addition, each event can be modified by an event modifier in the same sentence, but the order of modifiers conforms to the predictions of the VP-complementation structure. In sum, anti-reconstruction effects turn out not to be an argument for a complex predicate analysis; we submit that the balance of evidence weighs rather in favor of a VP-complementation structure.

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