

# Blocking of Phrasal Constructions by Lexical Items

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## Introduction

Blocking is the widely observed phenomenon where the existence of one form prevents the creation and use of another form that would otherwise be expected to occur.<sup>1</sup> Perhaps the most prominent cases are those in which the existence of an irregular form prevents the corresponding regular form from being used. In English for example, the existence of the irregular plural *men* for *man* is said to block the regular form *\*mans*.

Since the inception of the idea (Paul 1896), and in virtually all work on morphology over the past sesquidecennium, blocking has been taken to be restricted to the word-formation component (Esau 1973, Aronoff 1976, Allen 1978, Clark & Clark 1979, Tomán 1980, Zwanenburg 1981). Cases of non-lexical blocking are not cited as examples of the phenomenon.<sup>2</sup> Moreover, the theoretical proposals that have been put forward account only for blocking of one lexical form by another. For example, Miyagawa (1980) proposes that the morphological categories of a language define a set of slots in the lexicon, each of which, in the normal case, may be instantiated only once, so that if a more specific rule (of which the extreme case is the existence of an irregular form) applies to instantiate a category, a more general rule may not apply. Similarly, Kiparsky (1982a) proposes that morphological rules are subject to the Elsewhere Condition (Anderson 1969, Kiparsky 1973) so that a more specific rule instantiating a complex morphological category will apply disjunctively with a more general rule instantiating the same category, thus producing the blocking effect. On both accounts, blocking is expected only internal to the lexicon, under Miyagawa's proposal because the set of morphological categories is simply the structured part of the lexicon, and under Kiparsky's proposal because morphological rules are by definition lexical. I argue here on the basis of three examples that the blocking phenomenon is not restricted to the lexicon, that is, that it is possible for lexical forms to block phrasal constructions.

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<sup>1</sup> The term *blocking* is due to Aronoff (1976:41) who defines it as "... the nonoccurrence of one form due to the simple existence of another."

<sup>2</sup> Exceptions are Di Sciullo & Williams (1987) and Hualde (1988), to which we will refer later.

## 1. The Existence of Phrasal Blocking

In this section I present three examples in which lexical items block phrasal constructs, in each case offering evidence for the lexicality of the blocker, the phrasal status of the blocked item, and the claim that the relationship between the two is that of blocking.

### 1.1. Example I: Japanese Periphrastic Verbs

#### 1.1.1. The Periphrastic Construction

Japanese has a very large number of periphrastic verbs consisting of a nominal part followed by the verb *suru* “do”. The majority of such verbs are based on loans from Chinese, as are the examples in (1).

- (1)
- |              |                |
|--------------|----------------|
| denwa suru   | to telephone   |
| sanpo suru   | to take a walk |
| kenkyuu suru | to do research |

This periphrastic construction is the usual way of borrowing verbs from foreign languages; rather than adapting a foreign verb directly to Japanese verbal morphology Japanese normally borrows a nominal form and then creates a periphrastic verb. Some examples of periphrastics based on loans from English are given in (2).

- (2)
- |              |          |
|--------------|----------|
| doraibu suru | to drive |
| nokku suru   | to knock |

Periphrastics based on native nouns, such as those in (3), also exist but are relatively uncommon; one reason for this will be discussed below.

- (3)
- |               |                 |
|---------------|-----------------|
| tatigare suru | to be blighted  |
| tatiuti suru  | to cross swords |

The nouns that appear in periphrastic verbs are never restricted to the periphrastic context; they invariably may appear in Noun Phrases in other contexts.<sup>3</sup>

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<sup>3</sup> There are a number of superficial exceptions to this statement, but these are all examples of the historically related but synchronically quite distinct lexical pseudo-periphrastics, described in detail in Poser (ms).

For example, the noun *kenkyuu* that forms the base of the periphrastic verb *kenkyuu suru* “to study, to do research” may also appear as the head of the subject NP of a sentence, as in (4), or as the head of a relative clause serving as a predicate nominal, as in (5).

- (4) Sono kenkyuu-ga taisetu-da.  
that research-N important-be  
That research is important.
- (5) Sore-wa Tanaka-san-ga site-iru kenkyuu-da.  
that-T Tanaka-Mr.-N doing-be research-be  
That is the research that Mr. Tanaka is doing.

Periphrastic verbs come in two forms, referred to as the “incorporated” and “unincorporated” forms. In the incorporated form, the nominal component is not case-marked, as in (1), (2) and (3), while in the unincorporated form it bears accusative case, as in (6).

- (6)
- |                 |                 |
|-----------------|-----------------|
| denwa-o suru    | to telephone    |
| sanpo-o suru    | to take a walk  |
| tatigare-o suru | to cross swords |

More generally, in the unincorporated form the nominal behaves like an ordinary direct object NP, so that if the unincorporated periphrastic has a logical object, the logical object appears as a genitive modifier of the nominal component of the periphrastic, as in (7). In contrast, the logical object of an incorporated periphrastic, like other direct objects in Japanese bears accusative or dative case, as in (8), and cannot be modified.

- (7) Eigo-no benkyoo-o site-iru.  
English-G study-A doing-be  
(He) is studying English.
- (8) Eigo-o benkyoo site-iru.  
English-A study doing-be  
(He) is studying English.

The unincorporated periphrastics are unequivocally phrasal but the incorporated periphrastics have been treated in most of the literature as single words, whether lexically derived (Inoue 1976, Poser 1980, Miyagawa 1987, 1989, Grimshaw & Mester 1988), or derived by incorporation in the syntax (Kageyama 1977). However, there is considerable evidence that they too are phrasal in character (Hasegawa 1979,

Poser to appear). The evidence for phrasal status may be briefly summarized as follows:

- (a) Periphrastic verbs are accented like phrases rather than like any other sort of verb (Poser to appear).
- (b) Reduplication affects only the *suru* component of the periphrastic (Kageyama 1977).
- (c) Periphrastic verbs do not undergo even highly productive lexical nominalizations (Poser to appear).
- (d) Sentence-internally periphrastics are analyzable into the nominal and verbal portions, in that the nominal may be omitted in *whether*-constructions, which require repetition of the verb (Poser to appear).
- (e) It is possible to Right Node Raise the *suru* portion alone (Poser to appear).
- (f) It is possible to delete the verbal noun in the second conjunct of a pair of conjoined sentences (Kageyama 1977).
- (g) Periphrastics are analyzable across sentence-boundary in that the nominal part may be omitted in *too*-clauses, in which the verb of the first sentence is repeated in the second sentence (Poser to appear).
- (h) Periphrastic verbs are analyzable at the discourse level across speakers into the nominal and *suru*, in that the nominal part may be omitted in responses to yes-no questions (Poser to appear).

True phrasal periphrastic verbs contrast in these properties as well as a number of others with historically related forms that have now been lexicalized (Poser ms.).<sup>4</sup>

Given that periphrastic verbs are phrasal constructions, we do not expect it to be possible to block them, but in fact there is reason to believe that such blocking takes place.

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<sup>4</sup> The astute reader may find it peculiar that I attribute the hypothesis that incorporated periphrastics have a phrasal structure to Hasegawa (1979) but in addition to my own work cite only Kageyama (1977), who treats periphrastics as single words, for arguments to this effect. The reason for this apparent paradox is that Hasegawa, whose paper constitutes a reply to Kageyama's arguments for incorporation in the syntax, contributed no new arguments for phrasal status but rather argued, contra Kageyama, that incorporation never takes place at all.

### 1.1.2. Deverbal Noun Formation

Japanese has a fairly productive process of simple deverbal noun formation.<sup>5</sup> The deverbal noun is segmentally identical to the verb stem if the verb is a vowel-stem verb, and consists of the verb stem followed by the vowel /i/ if the verb is a consonant-stem verb.<sup>6</sup> Some examples are given below in (9).

(9) Simple Deverbal Nouns

Verb Stem	Derived Noun	Gloss
ir	iri	parching
kari	kari	borrowing
mamor	mamori	protection
oyog	oyogi	swimming
sabak	sabaki	judgment

This kind of nominalization appears to be a lexical process. The precise meaning taken on by the noun varies considerably, from the abstract “act of V-ing” through the agent noun, as illustrated by the examples in (10).

(10) Thematic Types of *renyoomeisi*

Verb	Gloss	Noun	Gloss	Thematic Type
iru	parch	iri	parching	action
kariru	borrow	kari	borrowing	action
kumoru	become cloudy	kumori	cloudiness	result
moru	serve, dish up	mori	a serving	theme
ouu	cover	ooi	a cover	instrument
tetudau	help	tetudai	helper, help	agent
tumu	load	tumi	shipment, load	theme

Moreover, in a number of cases deverbal nouns are accented irregularly, further indicating they are lexical. In general, deverbal nouns are accented on the ultima if the verb stem is accented and non-compound. Otherwise, they are unaccented

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<sup>5</sup> I use the term *simple* to refer to the least specialized kind of deverbal noun formation in Japanese. There are others, for example the manner nominals derived by suffixation of *-kata*.

<sup>6</sup> Although treated in much past work as a suffix, Yoshida (1981) proposes that this /i/ be inserted by a morphological epenthesis rule, and Poser (1984) proposes that it be inserted by a phonological epenthesis rule.

(Kawakami 1973). But as the examples in (11) show, there are a number of exceptional cases in which the accent falls on the first syllable rather than on the ultima. Moreover, as the examples in (12) show, there are also cases in which a deverbal noun that ought, if regular, to be accented, is in fact unaccented.

(11) Initial Accented Deverbal Nouns

domóru	stammer	dómori	stammering, a stammerer
hanaréru	separate	hánare	isolation
nagásu	sing from door to door	nágasi	strolling musician
orósu	sell at wholesale	órosi	wholesale trade
sabáku	judge	sábaki	judgement
sawágu	make noise	sáwagi	noise, hubbub
séku	dam up	séki	dam
súru	pick pockets	súri	pickpocket
tanómu	request, ask	tánomi	a request, favor
tatáru	curse	tátari	curse
tómu	become rich	tómi	riches

(12) Unaccented Nouns Derived from Accented Verbs

takurámu	scheme, plan	takurami	a design, a trick
takuwaéru	store, lay in	takuwae	store, hoard
todoróku	roar, peal	todoroki	a roar, a peal
tumúgu	spin	tumugi	pongee
tutusímu	be discreet	tutusimi	discretion

### 1.1.3. Blocking of Periphrastic Verbs

We might expect that we would be able to take a native verb, derive from it a noun, and form a periphrastic with this deverbal noun as its nominal base, yielding forms like those in (13). However, this turns out to be impossible; with rare exceptions, incorporated periphrastics may not be formed directly from deverbal nouns.<sup>7</sup>

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<sup>7</sup> There are a small number of exceptions, real and apparent, to the blocking of periphrastic verbs by their lexical counterparts. An apparent exception is *sakadati suru* “stand on end, stand on one’s head”, which has the non-periphrastic counterpart *sakadatu*. In this case the two forms have different meanings. The periphrastic form cannot be used to refer to inanimate things, such as hair, standing on end, while the lexical form has precisely this use. Real exceptions include *tatigare suru* “be blighted” which coexists with its lexical counterpart *tatigareru*, *tabenokosi suru* “leave food behind” < *tabenokosu*, *fumitaosi suru* “cheat” < *fumitaosu*, *torisimari suru* “check on”, < *torisimaru*, and *norikae suru* “change trains” < *norikaeru*. Saiki (1987) observes that the blocking effect seems to be weakening among younger speakers.

(13) Periphrastics Based on Root Deverbal Nouns

*irí suru	parch
*mamorí suru	protect
*oyogí suru	swim
*sábaki suru	judge
*ukétori suru	receive

Note that the claim here is that the incorporated periphrastics are impossible. As I note below, the same is not true of their unincorporated counterparts. This means that one must be careful to distinguish between true incorporated periphrastics and unincorporated periphrastics in which the accusative case particle has been elided by the process referred to as O-Ellipsis.<sup>8</sup> In the transitive case this can readily be determined by the case-marking of the object: accusative in the case of a true incorporated periphrastic but genitive in the case of an unincorporated periphrastic that has undergone O-Ellipsis. Another diagnostic is whether the form with a caseless nominal base is considered appropriate in writing and in formal speech, since O-Ellipsis is permissible only in casual speech.

I propose that this is a blocking effect, that is, that the periphrastic forms are unacceptable because a corresponding lexical verb already exists, as also suggested by Kageyama (1982).

One alternative explanation that we must consider is that we have here only an ordering effect, that is, that periphrastic verbs based on deverbal nouns are impossible simply because periphrastic verb formation occurs at a point at which the deverbal nouns have not yet been created. But there is good reason not to accept this proposal. One argument is theory-internal. This is the fact that deverbal noun formation is lexical and periphrastic formation is post-lexical. Since lexical rules precede post-lexical rules, deverbal noun formation must precede periphrastic formation, and hence the deverbal nouns must be available. Secondly, there is direct evidence that the deverbal nouns are available at the point at which periphrastic formation applies. In (14) we have a number of examples of periphrastic verbs whose nominal component is a compound the second member of which is deverbal.

(14) Periphrastic Verbs with Compound Deverbal Nominal Component

Periphrastic	Gloss	Analysis
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<sup>8</sup> In casual speech it is possible for the accusative case-marker *o* to be omitted. This is known as O-Ellipsis.

amamori suru	leak rain	rain + leak
amayadori suru	take shelter from the rain	rain + take shelter
asibumi suru	stamp	foot + tread on
atomodori suru	retreat	after + turn back
atozusari suru	flinch	after + withdraw
hitobarai suru	clear a room of people	person + sweep
hitomisiri suru	be bashful	person+see+know
hitoriaruki suru	be independent	one-person + walk
hitotigai suru	mistake a person for another	person + mistake
iede suru	leave home	house + leave
igui suru	live in idleness	live + eat
kantigai suru	misjudge	perception + differ
kimayoi suru	waver	spirit + be confused
maeoki suru	make introductory remarks	front + put
mizuarai suru	wash with water	water + wash
nebumi suru	appraise	price + evaluate
senobi suru	straighten one’s back	back + straighten
tatiuti suru	cross swords	sword + strike
tukimi suru	engage in moon-viewing	moon + see
yukimi suru	engage in snow-viewing	snow + see

In addition to the many more-or-less random examples of this type, certain first members are quite common. For example, periphrastics meaning “do V in advance” are created rather freely from nominals formed by compounding the noun *mae* “front, before” with the deverbal noun. Some examples are given in (15).

(15) Periphrastic Verbs with Nominal Component Containing *mae*

Periphrastic	Gloss	Analysis
maebarai suru	prepay	front + pay
maegari suru	draw (money) in advance	front + borrow
maegasi suru	advance (money)	front + lend
maeuri suru	sell in advance	front + sell

Similarly, periphrastics meaning “do V a little” are formed fairly productively by compounding the deverbal noun with the number “one”, *hito*.<sup>9</sup>

(16) Periphrastic Verbs with Nominal Component Containing *hito*

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<sup>9</sup> I am grateful to Yo Matsumoto for pointing out the relevance of the compounds of *hito*.



Periphrastic	Gloss	Analysis
hitohasiri suru	go for a run	one + run
hitomawari suru	go round	one + go around
hitonemuri suru	nap	one + sleep
hitooyogi suru	swim a little bit	one + swim
hitoyasumi suru	take a short rest	one + rest

The existence of such periphrastics suffices to demonstrate that deverbal nouns must be available for periphrastic verb formation. The reason that these are acceptable while other periphrastic verbs based on deverbal nouns are not, is that these have no corresponding lexical verbs. That is, there are no verbs *\*amamoru*, *\*amayadori*, *\*asibumu*, *\*atomodoru*, *\*atozusaru*, *\*hitobarau*, *\*hitohasiru*, *\*hitomawaru*, *\*hitomisiru*, *\*hitonemuru*, *\*hitooyogu*, *\*hitoriaruku*, *\*hitotigau*, *\*hitoyasumu*, *\*iederu*, *\*iguu*, *\*kantigau*, *\*kimayou*, *\*maebarau*, *\*maegariru*, *\*maegasu*, *\*maeoku*, *\*maeuru*, *\*nebumu*, *\*senobiru*, *\*tatiutu*, *\*tukimiru*, or *\*yukimiru*. The great majority of the nominals on which periphrastics of the type illustrated in (14), (15), and (16) are based are Noun-Noun compounds whose first component is a non-deverbal noun.<sup>10</sup> Although there are sporadic examples of the type, Japanese does not productively generate verbs by compounding a noun with a verb, so these nominals cannot be derived by nominalizing a verb with this structure. Moreover, as shown in Poser (1984:93), the accentuation of these nominals is consistent with a derivation in which the second member is nominalized and then compounded with another noun, but not with a derivation in which a compound verb is created and then nominalized. Thus, periphrastics based on nominals containing non-deverbal nouns suffer no competition from non-periphrastic verbs, and hence, are not blocked.

Periphrastics may also be based on deverbal nouns to which the suffix *bakari* “only” has been attached, as in (17), or to which the topic-marking suffix *wa* has been attached to focus the verb, as in (18).

- (17) Yomi-bakari site imasu.  
 Reading-only do-ing be  
 I am only reading.
- (18) Yomi-wa site imasu.  
 Reading-TOP do-ing be  
 I am **reading**.

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<sup>10</sup> Of the examples cited, the sole exception is *igui suru*, whose nominal base, *igui*, is a compound both of whose members are deverbal. (The first member is derived from the verb *iru*, “be located in a place, live”.) However, even this example conforms to the larger generalization, as there is no compound verb *\*iguu*.

These too show that the deverbal noun must be available for periphrastic formation. They are not blocked since their meaning differs from that of the simplex verbs from which they are derived.

In sum, the acceptability of periphrastics based on compound nouns with a deverbal member, and the acceptability of periphrastics based on simplex deverbal nouns to which *bakari* and *wa* have been suffixed demonstrate that the ordering explanation is untenable, while the blocking hypothesis makes exactly the correct prediction.

Still another explanation might be based on the fact that not every noun can enter into the incorporated periphrastic construction — the noun must have a suitable argument structure and other syntactic properties. We might suppose that deverbal noun formation creates nouns which, unlike the non-derived loans from Chinese and English, lack the syntactic properties necessary to enter into the periphrastic construction. But this is belied by the fact already demonstrated that deverbal nouns can form the basis for periphrastic verbs provided that there be no corresponding non-periphrastic verb. Moreover, there is no syntactic property that the non-native nominal bases of periphrastic verbs exhibit that the native ones do not, other than, of course, the ability to enter into the periphrastic construction. Thus, just as non-native nominals can assign case in the absence of the verb *suru* in certain constructions, such as purpose clauses (19), so can native deverbal nouns (20). There is no evidence that the properties of the deverbal nouns themselves are in any way distinct from those of the non-deverbal nouns from which periphrastic verbs may be formed.

(19) Hanako-wa eigo-o benkyoo-ni amerika-e itta.  
Hanako-T English-A study-D America-AD went  
Hanako went to America to study English.

(20) Taroo-wa Hanako-kara hon-o uketori-ni dekaketa.  
Taroo-T Hanako-ABL book-A receiving-D went-out  
Taroo went out to get a book from Hanako.

In sum, periphrastic verbs based on deverbal nouns are not possible so long as there is a corresponding lexical verb. Alternative explanations for this behaviour being untenable, this appears to be a case in which lexical items block a phrasal construction.

## 1.2. Example II: English Comparatives and Superlatives

Comparative and superlative adjectives in English may be formed in two ways. There is a lexical construction, involving the suffixation of the morphemes *-er* and *-est*, and a periphrastic construction, in which the adverbs *more* and *most* precede the adjective.

The lexicality of the affixation of *-er* and *-est* seems clear. They exhibit no behaviour inconsistent with lexical status: their phonology is that of words, the affixes are bound, and nothing not itself a suffix may intervene between the adjective and these affixes. Moreover, comparative and superlative adjectives are in certain cases formed by suppletion, clear evidence of lexicality. Thus, we have *better* for *\*good+er* and *best* for *\*good+est*, *worse* for *\*bad+er*, *worst* for *\*bad+est*.<sup>11</sup> *-er* and *-est* also occur inside of compounds, as in *surer-footed*, *fairer-minded*, *lightest-skinned*.

Similarly, the phrasal status of the periphrastics in *more* and *most* seems clear. *more* and *most* can be followed by arbitrary conjunctions of adjectives, as in (21), and it is possible to interpolate appositive material between *more* and *most* and the following adjective, as in (22).

(21) Periphrastic Comparatives and Superlatives of Conjoined Adjectives

more [curious and inquisitive]  
most [economical, efficient, and frugal]

(22) Interpolation into Periphrastic Comparatives and Superlatives

This situation is more, I suppose the term is delicate, than I had thought.

Watson, this is the most, how shall I say, curious case that I have ever seen.

This is not true of the lexical forms. In (23) we see that each term in a conjunct requires its own comparative or superlative suffix. When the comparative suffix falls on the last term the sentence is grammatical, but the comparison is restricted to the last adjective. When it is on a non-final term the example is simply ungrammatical.<sup>12</sup>

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<sup>11</sup> One conceivable, though unattractive alternative would be to claim that the non-suppletive forms were phrasal and that only suppletive forms are lexical. In this case we would have a different argument for phrasal blocking, since the suppletive forms block the regular forms *\*gooder* and *\*goodest*.

<sup>12</sup> It is also true that interpolation between the adjective and the comparative or superlative suffix is impossible, in the sense that there are no acceptable examples of it, but the unacceptability

(23) Interpolation into Periphrastic Comparatives and Superlatives

He is taller, slimmer, and handsomer than John.

He is tall, slim, and handsomer than John.

\*He is taller, slim, and handsome than John.

\*He is tall, slimmer, and handsome than John.

The lexical forms are possible only in a fairly small range of cases, determined in a way not fully understood by the length or stress pattern of the stem. Generally speaking, lexical comparatives and superlatives of adjectives with mono- and di-syllabic stems are perfect, while lexical forms derived from adjectives with longer stems are unacceptable. On the other hand, while it is always possible to form periphrastic comparatives and superlatives from adjectives with longer stems, periphrastic forms of adjectives with mono- and di-syllabic stems are generally unacceptable.<sup>13</sup> The crucial observation is, then, that whatever the nature of the principles governing the well-formedness of lexical comparatives and superlatives, the acceptability of the periphrastic forms is inversely related to that of the lexical forms, as illustrated in (24). As far as I can see, the only plausible explanation for this is that the periphrastic forms are blocked by the lexical forms.<sup>14</sup>

(24) English Comparatives

Base	Lexical	Periphrastic
big	bigger	*more big
small	smaller	*more small
good	better	*more good
fun	funnier	*more funny
silly	sillier	*more silly

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of these examples is not of great probative value since I have been able to find no circumstances in which, were the the comparative and superlative affixes clitics or even independent words, we would expect the interpolation to be acceptable.

<sup>13</sup> One systematic exception to this generalization occurs in such metalinguistic constructions as *It's more big than good.*, where the periphrastic form is not only acceptable but obligatory (cf. *\*It's bigger than better.*) What distinguishes such sentences from ordinary comparatives is that the nature of the comparison is different from that conveyed by lexical comparatives. In the usual case, saying that *A is Adj-er than B* means that on some scale of Adj-ness, A lies farther from the reference point than B. In contrast, when we say *A is more Adj1 than Adj2* we mean something like “It is more accurate or appropriate to say that A is Adj1 than to say that A is Adj2.” In other words, the comparison is here between the appropriateness of two utterances rather than between two situations in the world.

<sup>14</sup> Di Sciullo & Williams (1987) have also noted this example.

childish	*childisher	more childish
regal	*regaler	more regal
damaging	*damaginger	more damaging
symmetric	*symmetricer	more symmetric
vivacious	*vivaciuser	more vivacious

### 1.3. Example III: Basque

A third example of blocking of a phrasal construction by lexical items is found in Basque, as described by Hualde (1988:38-41). In Basque, progressive aspect is normally expressed by means of periphrasis with the defective verb *ari*. Thus, the progressive counterpart of (25) is (26), in which *ari* appears between the verb stem and the auxiliary.

- (25) Jon abiatzen da.  
 John leave-impf AUX-intr  
 John leaves.
- (26) Jon abiatzen ari da.  
 John leave-impf ari AUX-intr  
 John is leaving.

However, a handful of verbs have synthetic (non-periphrastic) present and past tense forms, and these lack periphrastic progressive forms in *ari*. Hualde provides the examples in (27), where the grammatical, synthetic form in the first column contrasts with the ungrammatical but expected periphrastic form in the third column.

- (27)
- |       |              |                   |
|-------|--------------|-------------------|
| daki  | he knows     | *jakiten ari da   |
| doa   | he goes      | *joaten ari da    |
| dakar | he brings    | *ekartzen ari da  |
| dabil | he walks     | *ibiltzen ari da  |
| dator | he comes     | *etortzen ari da  |
| dauka | he possesses | *edukitzen ari da |

The existence of the lexical tense-aspect forms of these verbs apparently blocks the corresponding periphrastic forms.

As evidence that the periphrastic forms are indeed phrasal, that is, that *ari* is not lexically attached to the main verb, Hualde offers the fact that in negative

constructions *ari* need not be adjacent to the verb stem at all. In (28) *ari* precedes the verb *kantatzen* and is separated from it by the direct object *madrigalak*. This appears to be compelling evidence for the phrasal status of *ari* periphrastics, and hence for the claim that we have here another case of blocking of a phrasal construction by lexical items.

- (28) Jon ez da ari madrigalak kantatzen  
 John NEG AUX ari madrigals sing-impf  
 John is not singing madrigals.

In sum, Japanese, English, and Basque appear to provide real examples of blocking of phrasal constructs by lexical items.<sup>15</sup>

## 2. Implications

The three examples of blocking of phrasal constructions by lexical items presented here are problematic for the existing theory of blocking since they cannot be accounted for in terms of unique instantiation of complex morphological categories, at least if we take such morphological categories to be those filled by the word-formation component. Either we must find some other account of blocking, one under which we do not expect blocking to be restricted to the lexicon, or we must in some way “extend” the lexicon to encompass the sorts of phrasal construction that we have discussed here.

### 2.1. The Pragmatic Approach

There is, in fact, one proposal in the literature that does not predict the restriction of blocking to the lexicon. This is the proposal, due to Householder (1971) and McCawley (1977), that effects very much like those that are usually ascribed to blocking are to be attributed to pervasive Gricean principles, to wit the principle that *ceteris paribus* the speaker expends as little effort as possible to say what he wants to say and therefore chooses the simplest available form. For example, Householder (1971) observes that it is awkward to say *pale red*. He proposes that

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<sup>15</sup> Di Sciullo & Williams (1987) cite the relationship between the synthetic and periphrastic forms of the Latin passive as an example of lexical blocking of a phrasal construct, which it may well be, though to be sure it is necessary to offer evidence of the phrasal character of the periphrastic construction and to rule out alternative explanations of the relationship. In general, paradigms containing both synthetic and periphrastic forms are good candidates for instances of lexical blocking of phrasal constructs.

the reason for this is that English has a simpler way of expressing the same notion, namely the word *pink*. Insofar as *pink* and *pale red* express the same meaning, the speaker will minimize his expenditure of effort and choose the former. *pale red* will be chosen only when *pink* is for some reason inappropriate, as when the hearer does not know the meaning of *pink* and *pale red* is given as a definition.

Neither Householder nor McCawley uses the term *blocking* or discusses the usual cases of morphological blocking, nor are their works cited in the literature on morphological blocking. Thus it does not seem that their proposal was intended to extend to these cases, nor has it been so interpreted. However, Di Sciullo & Williams (1987) suggest such an approach to blocking, without citing Householder or McCawley, or going into any detail.

This proposal has the advantage that it is not restricted to the lexicon. Thus, we must entertain the possibility that the unique instantiation account of blocking is incorrect, and that it is rather a pragmatic effect due to minimization of effort.

Although this proposal is attractive, it does not solve our problem. To begin with, it fails to account for a number of the classical examples of morphological blocking, since it predicts that form A will block form B only if form A involves a lesser expenditure of effort. This means, other things being equal, that we expect blocking only if the blocker contains less phonological material than the blocked form. But this prediction is incorrect. For example, we cannot appeal to the pragmatic proposal to explain the blocking of English *\*oxes* by the irregular *oxen*, since both forms are of equal phonological and morphological complexity. Similarly, in Japanese, the verb *kuru* “come” has the irregular present neutral negative stem *kona-* in place of the regular *\*kina-*. The fact that *kona-* blocks *kina-* is inexplicable on the pragmatic hypothesis, since the two stems are of equal complexity. Even worse is the present neutral affirmative form of the Japanese verb “to do”. The irregular present neutral affirmative form *suru* is actually longer than the expected but incorrect *\*su*.<sup>16</sup> A parallel example in English is the irregular plural *children*, which is surely not simpler than the regular *\*childs*. Examples such as these show that the pragmatic hypothesis does not handle the traditional cases of blocking.

A second problem with extending the pragmatic hypothesis to all cases of blocking is the fact that in the typical case of blocking the judgments are much stronger than in Householder’s *pale red* example. While it is true that *pink* is generally preferable to *pale red*, it is still possible to use the latter when there is sufficient motivation, as, for example, in defining *pink* for someone who does not know its meaning. In

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<sup>16</sup> The stem of “do” throughout most of its paradigm is simply /s/. The addition of the present neutral affirmative suffix /ru/ to this stem will yield *\*su*.

contrast, we cannot explain the irregular form *men* to a person learning English by equating it with *\*mans*. This latter form is not simply verbose; it is impossible.

The very property that makes the pragmatic hypothesis attractive, namely that it predicts the existence of blocking outside the lexicon, also provides an argument against it. Under the pragmatic hypothesis, it should be possible for phrasal constructs of any size to be blocked. But in point of fact the examples of blocking of phrasal constructs known to me all involve blocking of small phrases; there appear to be no examples of blocking of large syntactic units. For example, *the red book* does not block *the book which is red*.

A further difficulty for the pragmatic approach arises from the fact that the correspondence between two forms depends only on their meaning — if two potential forms have the same meaning, the simpler form should block the other one whether or not they are morphologically related, as is indeed the case in Householder’s example of *pale red*, which has only a semantic relation to *pink*.<sup>17</sup>

In general, there is no blocking effect when two forms are not related.<sup>18</sup> Thus,

(29) John is smarter than Tom.

blocks

(30) \*John is more smart than Tom.

but not such synonymous but structurally unrelated sentences as:

(31) John’s intelligence exceeds Tom’s.

(32) John has more intelligence than Tom.

or

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<sup>17</sup> Another apparent counterexample is that of doublets of a type common in Japanese, where there is both a native simplex verb and a periphrastic verb based on a loan from Chinese, where on the pragmatic account we might expect the simplex verb to block the periphrastic. In many cases the members of these doublets appear to be perfectly synonymous. An example is *manabu* “study”, the native counterpart to the Sino-Japanese periphrastic *benkyoo suru*. In most if not all of these cases, however, the members of the pair belong to different stylistic registers. It is usually the Sino-Japanese periphrastic that belongs to the higher register, but there are exceptions, such as *manabu*, which is the higher register member of the pair. Insofar as the pragmatic constraint is to use the simplest available form, the absence of blocking here is expected if we take availability to be relative to the chosen register.

<sup>18</sup> The difficulty of determining which utterances count as relevant alternatives is discussed in some detail by Horn (1978) in a critique of the proposal of McCawley’s of which we here consider an adaptation.



(33) John has greater intelligence than Tom.

The pragmatic approach therefore fails to provide a fully adequate account of blocking, partly because it cannot account for the classical observation that irregular forms block regular forms, and partly because it fails to restrict blocking effects to structurally related forms where the blocked form comprises a small syntactic unit.

## 2.2. Morphological Constructions

These problems with the pragmatic hypothesis suggest that we ought to try the other available route, namely finding some way to characterize certain phrasal constructs as instantiating morphological categories in spite of their non-lexical status. Roughly speaking, what we want to do is to extend the boundary of the lexicon, so that we can treat a class of phrase formation rules as essentially morphological in character, in the sense that they instantiate morphological categories.

The question that arises is how to instantiate this idea. I will tentatively propose that we should distinguish between morphological rules, by which I mean processes that instantiate morphological categories, and word-formation rules, by which I mean the non-phonological rules that operate within the lexicon. Since word-formation rules all instantiate morphological categories, all word-formation rules are morphological rules, but the converse need not be the case. Insofar as there are syntactic rules that instantiate morphological categories, these rules are morphological rules but not word-formation rules.<sup>19</sup> This provides us with a reconstruction of the traditional notion of periphrasis: a periphrastic construction is one in which morphological categories which are typically instantiated lexically are instead instantiated at a phrasal level.

The question then arises as to how to define a morphological category other than by saying that it is something that is instantiated by a word-formation rule. Suppose that we say that a morphological category is a category *potentially* instantiated by a word-formation rule. Then we would say that the category of comparative adjectives is a morphological category because in some languages it is instantiated by word-formation rules. The fact that it may be instantiated by a phrasal construction as well, as in English, does not affect the claim that this category is morphological in nature.

This distinction between morphological rules and word-formation rules permits a straightforward account of the English comparative adjective. The morphological

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<sup>19</sup> A theory with this property is that of Anderson (1989).

category of comparative adjective may potentially be filled either by a lexical form or by a periphrastic form. If the lexical form exists, the category is instantiated and so the periphrastic form is blocked.

Similarly, in the case of the periphrastic verbs, the morphological category is the verb with the argument structure and other properties of the related noun. If this category is instantiated by a lexical verb, the periphrastic form is blocked, but if it is left empty it may be instantiated by a phrasal construction.

One question that arises is what kinds of phrasal constructs may instantiate morphological categories, and hence be blocked by lexical forms. The three examples that we have seen both involve phrasal categories that are in a certain sense “small”. As I pointed out above, one defect of the pragmatic proposal is that it predicts that it should be possible to block any sort of phrasal construction. We should like to avoid the same problem here. I conjecture that it is only what I will call *small categories* that can instantiate morphological categories. By a *small category* I mean a category that dominates only zero-level projections. The English periphrastic comparatives and superlatives are presumably categories of type  $A^1$  and contain only categories of type  $ADV^0$  and  $A^0$ . The Japanese incorporated periphrastics are “small” since, on the analysis of Poser (to appear), they are of category  $V^0$  and contain only categories of the same level, namely  $V^0$  and  $N^0$ .

This definition helps us to explain a fact about the Japanese periphrastics that would otherwise seem problematic. As I have noted, although incorporated periphrastics are blocked by corresponding lexical verbs, their unincorporated counterparts are not. This contrast follows immediately once we recognize that the unincorporated periphrastics are not “small”; the nominal part of an unincorporated periphrastic is a full NP, as illustrated in example (7) above as well as in (34).

- (34) Butyoo-ga suru yoo-ni meirei sita  
 Boss-NOM do so ordered  
 kenkyuu-o mada sinakatta.  
 research-ACC still do-neg-past

He still hasn’t done the research that his boss ordered him to do.

Since the unincorporated periphrastic contains a full NP it is not a “small” category and so cannot instantiate a morphological category.<sup>20</sup>

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<sup>20</sup> Let me note briefly two inadequate alternatives that I considered. First, it is not adequate to say that “small” categories are merely non-recursive. The incorporated periphrastics, on the analysis given here, are recursive in that they contain another category of the same type ( $V^0$  contains another  $V^0$ ). Second, we might define the “small” categories as those that are

Whether it is possible to derive the restriction of phrasal blocking to “small” phrases is unclear. It may well be that this restriction can be derived from principles governing the distribution of morphological features, but I am not at present prepared to defend this position.

The proposal that morphological rules be considered to be a superset of the word-formation rules, with blocking applicable to morphological categories, not to words, provides an account both of the classical blocking cases and of the attested cases of phrasal blocking, without falsely predicting blocking to be a more general phenomenon than it is. In this sense, it seems that the proposal is on the right track. However, as presented here the proposal is also excessively vague, and its viability depends on whether subsequent research provides an adequate theory of morphological categories and how they are instantiated. If this approach is correct, it provides reconstructions of the traditional notions of periphrasis and construction, notions used regularly for descriptive purposes, but which have no home in current morphological and syntactic theory.<sup>21</sup>

### 3. Summary

Although the current literature on blocking is restricted to the lexicon, there appear to be cases of blocking of phrasal constructions by lexical items. Three examples are presented here, namely the blocking of Japanese periphrastic verbs by their lexical counterparts, the blocking of English periphrastic comparative and superlative adjectives by lexical comparative and superlative forms, and the blocking of Basque periphrastic progressive verb forms by lexical progressives. These examples require a modification of the theory of blocking. One possibility is a purely pragmatic account, along the lines suggested by Householder (1971), McCawley(1977), and Di Sciullo & Williams (1987). This, however, is subject to a number of objections.

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monotonic in the sense that they contain no projections higher than themselves. The incorporated periphrastics and the periphrastic comparative and superlative adjectives satisfy this definition since they contain only zero-level projections, but this definition fails to distinguish between the incorporated periphrastics and their unincorporated counterparts. Insofar as the latter are of category  $V^2$  they should count as “small” even if they dominate full NPs. This definition might, however, be tenable if the unincorporated periphrastics were of category  $V^1$ , a possibility that I am not at present prepared to rule out conclusively.

<sup>21</sup> The work of Fillmore, Kay, and O’Connor (1988) on Construction Grammar is an exception. Although one might entertain the idea that what can be blocked are constructions, it appears that from the point of view of Construction Grammar every phrasal collocation is a construction — there is no distinction made between phrasal collocations that instantiate morphological categories and other phrasal structures — so that their notion of construction is too general to be useful for the purpose of delimitting the scope of blocking.

Instead I propose an extension of existing lexical accounts of blocking to encompass blocking of phrasal constructions that instantiate morphological categories.

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