

of a Russellian, quantificational analysis of definite noun phrases (combined with the treatment of intensional verbs like *rise* as being of type $\langle\langle s, e \rangle, t \rangle$); once we drop the Russellian analysis in favor of a presuppositional analysis, the simpler type assignment becomes possible, and the validity of the argument in (15) through (17) falls out, eliminating a significant problem in Montague's treatment of the temperature paradox. Because the presuppositional analysis makes possible an improved analysis of the temperature paradox, we may regard the temperature paradox as providing evidence in favor of the presuppositional account of definites.

References

- Bennett, Michael Ruisdael. 1975. Some extensions of a Montague fragment of English. Bloomington: Indiana University Linguistics Club.
- Dowty, David R., Robert E. Wall, and Stanley Peters. 1981. *Introduction to Montague semantics*. Dordrecht: Reidel.
- Jackendoff, Ray. 1979. How to keep ninety from rising. *Linguistic Inquiry* 10:172–177.
- Löbner, Sebastian. 1981. Intensional verbs and functional concepts: More on the “rising temperature” problem. *Linguistic Inquiry* 12:471–477.
- Montague, Richard. 1973. The proper treatment of quantification in ordinary English. In *Approaches to natural language: Proceedings of the 1970 Stanford Workshop on Grammar and Semantics*, ed. by K. J. J. Hintikka, J. M. E. Moravcsik, and P. Suppes, 221–242. Dordrecht: Reidel.
- Thomason, Richmond H. 1979. Home is where the heart is. In *Contemporary perspectives in the philosophy of language*, ed. by Peter A. French, Theodore E. Uehling, Jr., and Howard K. Wettstein, 209–219. Minneapolis: University of Minnesota Press.

MORPHOLOGICAL BOUNDARIES OF
JAPANESE ADJECTIVES: REPLY
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1 Introduction

In Nishiyama 1999, I proposed that the two types of Japanese adjectives illustrated in (1) share fundamentally identical phrase structure.

- (1) a. *Canonical adjectives (CA)*
Yama-ga taka-ku-mo ar-u.
mountain-NOM high-ku-even be-PRES
'The mountain is even high.'
- b. *Nominal adjectives (NA)*
Yoru-ga sizuka-de-mo ar-u.
night-NOM quiet-de-even be-PRES
'The night is even quiet.'

I thank the two reviewers for helpful comments.

The major claim that I made in Nishiyama 1999 is that CA-*k(u)* in (1a) and NA-*de* in (1b) are parallel and that *k(u)* and *de* are allomorphs of Pred, a head essential for predication (Bowers 1993). In a later article, Namai (2002) illuminates issues not discussed thoroughly in Nishiyama 1999. The two major points made by Namai are that (a) *k(u)* cannot be Pred, and (b) *k(u)* is not an independent word but is part of a CA. (A third point has to do with modification, which will not be discussed here. See Yamakido 2000 and Bouchard 2002 for relevant discussion.) The main purpose of this squib is to examine (b) closely and argue that despite the new data that Namai presents, my original claim that *k(u)* is an independent syntactic head can still be maintained. Section 2 discusses claim (a), that *k(u)* cannot be Pred. The remaining sections concentrate on claim (b), that *k(u)* is not an independent morpheme but is part of a CA.¹ Section 3 shows that syntactic atoms do not always constitute one syntactic node. On the basis of this result, section 4 reexamines Namai's examples. Section 5 is concerned with adjectives and transitivity.

2 Adverbs and Predication

Namai (2002) argues that since *k(u)* appears with adverbs (see (2a)), it cannot be Pred. The argument is based solely on the assumption that adverbs do not involve predication (see Namai 2002:343). But it is not clear whether this assumption is valid. For example, Parsons (1990) argues that (manner) adverbs are predicates of events and gives a semantic formula like (2b).

- (2) a. Brutus-ga haya-ku arui-ta.
 Brutus-NOM fast-ku walk-PAST
 'Brutus walked fast.'
 b. $\exists e$ [Walking(*e*) & Agent(*e*, Brutus) & Fast(*e*)]
 (adapted from Parsons 1990:45)

(2b) says that there is an event that is characterized as walking, and its Agent is Brutus, and it is fast. Note that the adverb is predicated of the event argument (*e*). In one of the most comprehensive works on adverbs, Ernst (2002) identifies a class of adverbs that he dubs 'predicational adverbs.' These ways of treating adverbs are quite consistent with (or actually support) the identification of *k(u)* as Pred. Moreover, if Radford (1988), whose proposals Namai strongly endorses, and Baker (2003:sec. 4.5) are correct in claiming that adverbs and adjectives are in fact the same syntactic category, and if adjectives are predicates, then adverbs are indeed predicates. Note that even in attributive contexts, adjectives are semantically predicates.

¹ By this, Namai means that *k(u)* is not an independent word in the syntax and that CA-*k(u)* is formed in the lexicon (2002:346). To avoid terminological confusion, in the following discussion I restate Namai's position as 'k(u) does not occupy an independent syntactic node.'

- (3) a. [_N red book]'
 b. λx [Red'(x) & Book'(x)]
- (4) a. The book is red.
 b. Red' (the book)

What (4b) indicates is that *Red'* is the predicate of *the book*. In this respect, (4b) is the same as (3b), although the semantic type is different ($\langle e, e \rangle$ vs. $\langle e, t \rangle$). See Nishiyama, to appear, for more discussion on the relations between Pred, adjectives/adverbs, and pre/postpositions. The following sections discuss the syntactic status of $k(u)$.

3 Syntactic Atoms and Phrase Structure

To argue that CA- $k(u)$ is one lexical word, Namai (2002) cites the following examples of coordination:

- (5) a. *[taka sosite utukusi]- $k(u)$ (CA)
 high and beautiful- $k(u)$
- b. [sizuka sosite haruka]- de (NA)
 quiet and far- de
 (Namai 2002:345, slightly modified)

On the basis of this example (and others to be discussed below), Namai argues that $k(u)$ does not occupy an independent syntactic node the way *de* does. In what follows, I show that (5) does not necessarily refute the alleged parallelism of $k(u)$ and *de* in (1), once we consider the bound nature of CA roots.

One implicit assumption in Namai's argument is that if an element is a syntactic atom, it cannot contain more than one syntactic node. Consider:

- (6) taka- $k(u)$ sosite utukusi- $k(u)$
 high- $k(u)$ and beautiful- $k(u)$
 (Namai 2002:347)

Note that (5a) becomes grammatical if both conjuncts have $k(u)$. Namai takes this as evidence that CA and $k(u)$ are "one unbreakable word, internally not susceptible to any syntactic operations, a characteristic of lexical items formed in the lexicon" (p. 346). That is, *taka- $k(u)$* is a syntactic atom and *as a consequence* cannot contain two distinct syntactic nodes.

However, the last step of the above argument cannot be justified. Consider:

- (7) a. a big apple pie
 b. a complicated criminal lawyer
 (see, e.g., Beard 1991, Bouchard 2002)

(7a) does not mean 'a pie with big apples' but 'a big pie with apples'. (7b) cannot mean 'a lawyer who specializes in laws of complicated crimes'; instead, it means 'a criminal lawyer with a complicated character'. That is, [apple pie] and [criminal lawyer] are syntactic atoms

in that they resist internal modification. Although (7b) might be ‘lexicalized’ in a lexicographical sense,² it is plausible that [apple pie] and [criminal lawyer] are composed of two nodes in phrase structure. Thus, ‘syntactic atom’ is not equal to ‘one syntactic node.’

Given the discussion above, the contrast between (5a) and (6) does not necessarily guarantee that *taka* ‘high’ and *k(u)* constitute one lexical word. The contrast in question is better handled by appealing to the *bound* status of the CA root *taka* (see Kubo 1992). That is, (5a) is ungrammatical simply because *taka* is a bound form and cannot stand alone in the syntax.³ To elaborate the point, I first discuss the internal structure of NAs.⁴ Consider:

- (8) *sizuka* ‘quiet’, *hisoka* ‘secret’, *haruka* ‘far’, *sukoyaka* ‘healthy’, *tasika* ‘certain’, *sawayaka* ‘fresh’

In Nishiyama 1999:204, I note that all these NAs end with *-(ya)ka*, and I assume that *-(ya)ka* is a suffix that forms an NA root, following a tradition in Japanese lexicography (e.g., *Kojien*). In other words, the NAs in (8) are morphologically analyzed as *sizu-ka*, *hisoka-ka*, *haru-ka*, and so forth. Postulation of the morphemes /*sizu*/, /*hisoka*/, and /*haru*/ is justified by the following forms (see Nishiyama 1999:219):

- (9) *Verbalization*
- a. *sizu-maru*
‘become quiet’
 - b. *sizu-meru*
‘make quiet’
 - c. *hisoku-mu*
‘hide’
- (10) *Reduplication*
- a. *hisoku-hisoku*
‘secretly’
 - b. *sizoku-sizoku*
‘quietly’
 - c. *haru-baru*
‘far’

² Spencer (1991:416) dubs this ‘paradigmatic word formation.’ The issue is related to Namai’s third point on modification, but not in a way relevant to the current discussion.

³ I should have considered this insight by Kubo more seriously in Nishiyama 1999:203–204. Thanks to reviewers for this point. It might be that the bound nature is what distinguishes CAs from NAs. But this notion still seems to be secondary or derivative. Nishiyama 1999:sec. 4 is an attempt to derive the distinction from independent morphological properties.

⁴ As noted in Nishiyama 1999:204, the majority of NAs are loanwords from Chinese or English. Since loanwords are typically treated as free forms, I concentrate on native NAs in the following discussion.

(9) and (10) show that /sizu/, /hiso/, and /haru/ can be followed by a verbal suffix or reduplicated.⁵ To be more specific, let us postulate /sizu/ as a ‘subroot,’ as opposed to a ‘(full) root’ like /sizu-ka/. In this analysis, a subroot /sizu/ is a bound form, and the suffix /ka/ attaches to it and makes a full root, which is a free form.

Now consider the following intransitive/transitive pair based on CA roots:

- (11) a. taka-maru ‘become high’
 taka-meru ‘make high’
 b. hiro-maru ‘become wide’
 hiro-meru ‘make wide’

Note the parallelism between (9) (NA) and (11) (CA). If /sizu/ is a bound form and /sizu/ and /taka/ are parallel, then it follows that /taka/ is also a bound form. Thus, since (5b) becomes ungrammatical without /ka/ in the first conjunct,

- (12) *[sizu sosite haruka]-de

it is not surprising that (5a) is also ungrammatical. The analysis is illustrated as follows:

- (13) a. NA {[sizu_{bound form}]-ka_{root}]_{free form}} (-de)
 b. CA {[taka_{bound form/root}]-k(u)_{free form}}

In this analysis, the differences between NA /sizu/ and CA /taka/ are that (a) while /sizu/ needs /ka/ to form a full root, /taka/ can function as a full root by itself, and (b) while the root /sizu-ka/, with the help of /ka/, is a free form, the root /taka/ is not a free form, and it needs /k/ to constitute a free form. Since /sizu-ka/ is a free form, it can stand alone in the syntax without /de/, which thus appears optionally in the first conjunct. The following paradigm summarizes the situation:

- (14) a. taka*(-ku) sosite utukusi-ku
 b. sizu*(ka)(-de) sosite haru*(ka)-de
 (cf. (5))

In (14a), *k(u)* is necessary, since /taka/ is a bound form. So is /ka/ in (14b).

Next, consider the following cases:

- (15) a. sizuka-sa
 quiet-ness
 b. taka(*-ku)-sa
 high-ness

Here, if we attach *-sa* ‘-ness’, /ka/ is maintained (15a) but /k(u)/ is lost (15b). This contrast is unexpected if /k(u)/ is part of the CA root, as claimed in Namai 2002 (as well as in Uehara 1998, which Namai follows, and Urushibara 1993). In particular, if *-sa* attaches to an adject-

⁵ Some reduplications involve *rendaku*. Many CA roots also reduplicate: for example, *taka-daka* ‘highly’ and *hiro-biro* ‘widely’. See Nishiyama 1999: 219–220 for discussion of other examples in (8).

tival root, as seems natural from (15a), and if $k(u)$ is part of the CA root, why can't $k(u)$ appear in (15b)? The problem can easily be solved if $k(u)$ is *not* part of the CA root.

One clarification is in order. The above arguments utilize a notion that might be dubbed ‘‘morphological parallelism.’’ That is, /taka/ is parallel with /sizu/ in that they are both bound forms. This morphological parallelism contrasts with the ‘‘syntactic parallelism’’ featured in Nishiyama 1999. There, /taka/ and /sizuka/, on the one hand, and /k/ and /de/, on the other, are argued to be parallel *syntactically*, because they head the same syntactic phrase (AP and PredP, respectively). These two notions of parallelism often coincide, but not always. Most of the examples of divergence in acceptability presented by Namai are due to the lack of morphological parallelism between /taka/ (bound form) and /sizuka/ (free form), and thus are orthogonal to their syntactic parallelism as argued for in Nishiyama 1999.

4 Reexamining Namai’s (2002) Examples

Let us next look at other examples that Namai (2002) gives as evidence for the lack of the parallelism between /taka/ and /sizuka/, on the one hand, and /k/ and /de/, on the other. The first three of the following four sets of examples are accounted for by assuming that CA roots are bound forms.

I will first discuss examples that can be accounted for most straightforwardly by appeal to the bound nature of CA roots. Since Namai’s original examples of reduplication (p. 346) are confused with genuine reduplication (10), I will change them to colloquial questions to make the same point.

- (16) a. *Taka?
 ‘Is it high?’
 b. Sizuka?
 ‘Is it quiet?’

While the NA root /sizuka/ can be used by itself in a colloquial question as in (16b), the CA root /taka/ cannot (16a). This is accounted for directly by assuming that while /sizuka/ is a free form, /taka/ is a bound form and cannot stand alone.⁶

The second example involves the negative emphatic suffix *nanka* ‘at all’.

⁶ A reviewer points out that (at least in one dialect) a bare CA root can appear with the modality of surprise.

- (i) a. Taka!
 high/expensive
 b. Samu!
 cold

(ia–b) are still more colloquial than (16b) and sound elliptical at best. It might be that for pragmatic reasons, an utterance expressing surprise must be as succinct as possible, and this allows a bound morpheme to appear without any suffixes.

- (22) a. taka-ku natta soo(*-ku) natta (CA)
 high *ku* became so *ku* became
 ‘became high’ ‘became so’
- b. sizuka-ni natta soo(*-ni) natta (NA)
 quiet *ni* became so *ni* became
 ‘became quiet’ ‘became so’

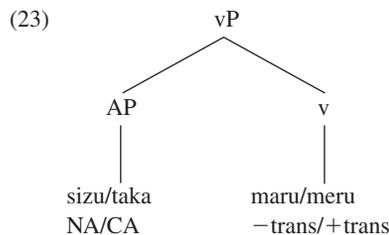
((22a) is slightly modified from Namai 2002:347. (22b) is not cited.) In (22b), the proform cannot be followed by *ni*, an allomorph of the Pred *de* in this context in the sense of Nishiyama 1999. Now there is no doubt that *ni* is *not* part of the NA root, but (22b) is still ungrammatical if *ni* emerges. The contrast between (21b) and (22b) suggests that which morpheme can follow *soo* is idiosyncratically specified. Although I do not give a precise characterization of the *soo* substitution here, to the extent that (21a) can be ungrammatical for the same reason as (22b) is ungrammatical, the contrast in (21) can be attributed to the intrinsically choosy nature of *soo* and does not necessarily force one to conclude that *k(u)* is part of the CA root.

5 Adjectival Roots and Transitivity

Finally, let us return to (9) and (11a), repeated here:

- (9) a. sizu-maru ‘become quiet’ (NA)
 b. sizu-meru ‘make quiet’
- (11) a. taka-maru ‘become high’ (CA)
 taka-meru ‘make high’

The leading idea in Namai 2002 is that only a syntactic atom can occupy a syntactic node. Extending this idea, one might expect that the verbs in (9) and (11a) are syntactically unbreakable units—that is, simply V—since /sizu/ and /taka/ are not syntactic atoms without the verbal suffix *-maru/-meru*. However, given that there is growing evidence in the literature for a phrase that determines the transitivity of the clause (see, e.g., Chomsky 1995, Nishiyama 1998a,b, and especially Bowers 2002), another analysis of (9) and (11a) seems possible (see Urushibara 2000, Nishiyama 1998a, 2000).



Here, /sizu/ and /taka/ head AP, and the verbal suffixes /maru/ and /meru/ head vP (abstracting away from the tense morpheme in the latter).⁷ Although lexicalists (see, e.g., Sells 1995) would object to

this analysis, my standpoint is that if Universal Grammar permits a clause architecture that contains vP, the null hypothesis is that Japanese has such a phrase as well, in the absence of compelling evidence to the contrary. In this concept of UG, the fact that the adjectival roots and the verbal suffixes above are not syntactic atoms is not an obstacle to postulating two distinct syntactic heads for each. On the contrary, I take the overt transitivizing suffixes as evidence for vP in Japanese, hence in natural language. This conclusion is a natural extension of the syntactic analysis for /taka/-/k/ here, which argues that /taka/ and /k/ are distinct syntactic heads and that the fact that /taka/-/k/ is a syntactic atom is simply due to the bound nature of /taka/.

References

- Aoyagi, Hiroshi. 1998. On the nature of particles in Japanese and its theoretical implications. Doctoral dissertation, University of Southern California, Los Angeles.
- Baker, Mark C. 2003. *Lexical categories: Verbs, nouns, and adjectives*. Cambridge: Cambridge University Press.
- Beard, Robert. 1991. Decompositional composition: The semantics of scope ambiguities and “bracketing paradoxes.” *Natural Language & Linguistic Theory* 9:195–229.
- Bouchard, Denis. 2002. *Adjectives, number and interfaces: Why languages vary*. Amsterdam: North-Holland.
- Bowers, John. 1993. The syntax of predication. *Linguistic Inquiry* 24: 591–656.
- Bowers, John. 2002. Transitivity. *Linguistic Inquiry* 33:183–224.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- Ernst, Thomas. 2002. *The syntax of adjuncts*. Cambridge: Cambridge University Press.
- Kubo, Miori. 1992. Japanese syntactic structures and their constructional meaning. Doctoral dissertation, MIT, Cambridge, Mass.
- Namai, Kenichi. 2002. The word status of Japanese adjectives. *Linguistic Inquiry* 33:340–349.
- Nishiyama, Kunio. 1998a. The morphosyntax and morphophonology of Japanese predicates. Doctoral dissertation, Cornell University, Ithaca, N.Y.
- Nishiyama, Kunio. 1998b. V-V compounds as serialization. *Journal of East Asian Linguistics* 7:175–217.
- Nishiyama, Kunio. 1999. Adjectives and the copulas in Japanese. *Journal of East Asian Linguistics* 8:183–222.
- Nishiyama, Kunio. 2000. Jita-koutai to keitairon (Transitivity alternation and morphology). In *Nichieigo no jita no koutai* (Transitiv-

⁷ If adjectives require Pred for θ -role assignment, as argued in Nishiyama 1999, to appear, and Baker 2003, *-maru/-meru* might be a portmanteau of Pred and v.

- ity alternation in Japanese and English), ed. by Tadao Maruta and Kazuyoshi Suga, 145–165. Tokyo: Hituzi Syobo.
- Nishiyama, Kunio. To appear. Verbs, adjectives, and Pred: Review of Mark C. Baker, *Lexical categories. English Linguistics* 22.1.
- Parsons, Terence. 1990. *Events in the semantics of English*. Cambridge, Mass.: MIT Press.
- Radford, Andrew. 1988. *Transformational grammar: A first course*. Cambridge: Cambridge University Press.
- Sells, Peter. 1995. Korean and Japanese morphology from a lexical perspective. *Linguistic Inquiry* 26:277–325.
- Spencer, Andrew. 1991. *Morphological theory*. Cambridge, Mass.: Blackwell.
- Uehara, Satoshi. 1998. *Syntactic categories in Japanese: A cognitive and typological introduction*. Tokyo: Kuroshio.
- Urushibara, Saeko. 1993. Syntactic categories and extended projections in Japanese. Doctoral dissertation, Brandeis University, Waltham, Mass.
- Urushibara, Saeko. 2000. A lexical-syntactic approach to Japanese psychological predicates: A preliminary analysis. Paper presented at the 6th Morphology and Lexicon Forum, University of Tokyo.
- Yamakido, Hiroko. 2000. Japanese attributive adjectives are not (all) relative clauses. In *WCCFL 19*, ed. by Roger Billerey and Brook Danielle Lillehaugen, 588–602. Somerville, Mass.: Cascadilla Press.

WH-IN-SITU IN MANDARIN
CHINESE

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It is controversial whether an in-situ *wh*-phrase in Mandarin Chinese (MC) undergoes covert (LF) movement to its scope position (Huang 1982, Xu 1990, Lin 1992, Aoun and Li 1993, Tsai 1994a, 1999, Cole and Hermon 1998). Recent studies (e.g., Tsai 1994a, 1999, Cole and Hermon 1998) have argued that *wh*-phrases fall into two groups, nominal and adverbial, and that only adverbial *wh*-phrases (e.g., *weishenme* ‘reason-why’) raise to their scope position at LF, while nominal *wh*-phrases (e.g., *shenme* ‘what’, *shei* ‘who’, *na Numeral-Classifier N* ‘which N’, *nali* ‘where’, and *wei-le shenme* ‘purpose-why’) do not. The claim is based on the fact that unlike a nominal *wh*-phrase, an

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