Phonological and semantic asymmetries in Japanese nominalizations: Implications for the Single Engine hypothesis and the decomposition of roots

Kageyama (1999: 109) claims that "a phonological restriction is seen" for nominalizations formed from Japanese verb stems:

> First, one mora words stand independently with difficulty for phonetic reasons. [*suru* 'do'] → [**shi*], [*kiru* 'wear'] → [**ki*] and the like, are unlicensed; compounds such as [*shi-waza* 'an act'] and [*ki-mono* 'traditional Japanese dress'] become stable…Even two morae nominalizations are still unstable, [**nomi*] (cf. *nomi-mono*), [**tsuke*] (cf. *tsuke-mono*) cannot occur independently. Some, however, have become accepted, e.g., *kari* 'a debt', *kashi* 'a loan', *make* 'a defeat', *kachi* 'a victory' and *ue* 'hunger' (ibid). (Translation, mine)

In other words, nominalizations of three or more morae are unremarkable; those of two or less are notably scarce. Two morae nominalizations that might otherwise be expected based on the analogy *oyog-u* 'swim'/ *oyogi* 'swimming', e.g., *tabe-ru* 'eat' / **tabe* 'eating', and *yom-u* 'read' / **yomi* 'reading', do not exist. The facts that limit two morae nominalizations, however, cannot be derived from phonetic restrictions alone since nominalizations of two morae are numerous when the noun-forming verb stem is morphologically-complex consisting of a root plus a "transitivity-marker". Of the 171 nominalizations I have collected from the Japanese alternating-verbs listed by Jacobsen (1992: 258-268), 58 consist of two morae or less. Nominalizations from simple roots are semantically compositional:

1)

a. *hanashi* 'a talk' (cf. *hanas-u* 'to talk')
b. *kangae* 'a thought' (cf. *kangae-ru* 'to think')
c. *hashiri* 'running' (cf. *hashir-u* 'to run')
d. *oboe* 'a memory' (cf. *oboe-ru* 'to remember')

Nominalizations of two morae are frequently non-compositional:

2)

Root	**Verb-$_{\text{INTRANS}}$**	**Verb-$_{\text{TRANS}}$**	**Nominalization**
√*ko*(*y*)-	*ko-**e**-*(*ru*-$_{\text{NON-PAST}}$) 'become fat'	*koy-as-*(*u*-$_{\text{NON-PAST}}$) 'fatten'	*ko-**e*** 'manure'
√*ot*-	*och-**i**-*(*ru*) 'fall'	*ot-os-*(*u*) 'drop'	*och-**i*** 'point of a joke'
√*d*-	*d-e-*(*ru*) 'to exit'	*d-**as**-*(*u*) 'to expel'	*d-**ash**-i* 'soup stock'
√*bak*-	*bak-**e**-*(*ru*) 'to be changed into'	*bak-as-*(*u*) 'to bewitch'	*bak-**e*** 'a ghost'
√*mag*-	*mag-ar(-u)* 'bend'	*mag-**e**-(ru)* 'bend'	*mag-**e*** 'a topknot, chignon'

Recent work in DISTRIBUTED MORPHOLOGY (DM), the SINGLE ENGINE hypothesis (Marantz, 2001 and 2002, and Arad, 2003), argues that merger of roots with the functional heads, *n*, *v* and *a* is responsible for non-compositional special meaning at the word-level:

> The first category head merging with the root defines a PHASE (Chomsky, 1999), that is, a stage in the derivation where the element built by the computational

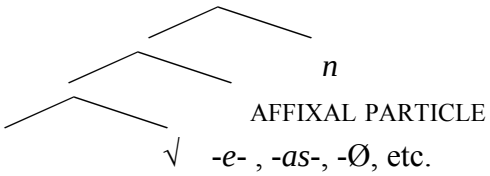
> system is spelled out both semantically and phonologically (Arad, 2003: 747-8)
> … Once the root has merged with a head, its interpretation has been decided and is carried upward in the derivation. (Arad, 2003: 754).

The semantics of the morphologically-complex nominalizations entails that their morphology is **non**-phase-defining (verbal meanings post-phase could not derive the non-compositional nominal meanings and vice verse). Pace Pylkkänen, 2002, Miyagawa, 1998 and Harley, 1995 and 1996, I argue that the non-root morphology in verb stems and are **not** transitivity-marker but AFFIXAL PARTICLES located below the phase-defining heads *n* and *v* (den Dikken, 1995).

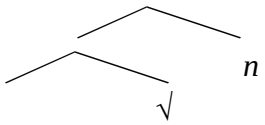
Consider the Japanese morpheme *–e-* in example 2. It is associated with intransitive, transitive as well as applicative verbs, (e.g., *osowa-ru* 'learn' /*oshi-**e**-**ru*** 'teach'). What is the semantic contribution of the putative transitivity-marking morpheme to nominalizations? The lexical causative *mag-e-ru* 'bend' has *mag-e* 'top knot' as its nominalization. They are non-cyclic (Brame, 1972 and Aronoff, 1976), non-phase-defining in contemporary terms. Its meaning cannot be compositionally reconstructed from its individual morphemes, i.e., 'bend' + CAUSE ≠ 'a topknot'. What at first glance, appear to be transitivity-markers, are often associated with multiple valences. (See den Dikken (1995)'s affixal particle *ver-* in Dutch) Japanese roots shown in example 2 do not lexicalize without the affixal particle, true of ten of Jacobsen (1992)'s fifteen morphological classes indicating the morphology plays a more fundamental role. There are similarities with the latinate roots *-mit*, *-ceive*, and *–struct* of English; affixal particles are necessary for lexicalization (Aronoff, 1976).The RADICAL DECOMPOSITION of roots (Harbour, 2000, Marantz, 2001 and 2002) claims that affixal particles, in addition to allowing roots to lexicalize, can be implicated in the argument structure of the roots they attach to, as in Japanese and Dutch. (den Dikken (1995)

The primary claim of this paper is two morae Japanese nominalizations and their semantic and phonological asymmetries result from distinct syntactic structures rather than phonetic constraints:

3. morphologically-complex nominalizations



4. morphologically-simple nominalizations



A more general theoretical claim is the analysis supports DM's Single Engine hypothesis (Marantz, 2001 and Arad, 2003) and radical decomposition of roots (Harbour, 2000, Marantz, 2001 and 2002).