Title	Word Formation Processes of A-ishness and A-ishly : A Construction-Based Approach
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Citation	待兼山論叢. 文学篇. 2017, 51, p. 63-81
Version Type	VoR
URL	https://hdl.handle.net/11094/71398
rights	
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Word Formation Processes of *A-ishness* and *A-ishly*: A Construction-Based Approach [1]

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1 Introduction

Some studies of derivational affixes in English have presented various meanings and functions of the adjectival suffix *-ish*. According to the *OED* and Quirk *et al.* (1985), the suffix *-ish* originates from Proto-Germanic, and primarily combines with nouns and adjectives to form adjectives. Typical examples of adjectives ending in *-ish* are given below.

(1) a.   English, Irish, Polish, Swedish, Turkish
     b.   childish, foolish, doggish, selfish, boorish
     c.   aguish, bookish, freakish
     d.   fortyish, sixtyish, eightyish
     e.   coldish, greenish, sweetish, youngish, goodish

The adjectives in (1a-d) are derived from the base nouns. In (1a), when attached to nouns denoting names of races, peoples, and languages, *-ish* means 'belonging to' a person or thing. In (1b) and (1c), when combined with largely concrete nouns, *-ish* means 'having the nature of, like' in a derogatory sense, or 'tending to.' In (1d), the base nouns are numbers denoting people's ages. When *-ish* occurs with these nouns, it means 'approximately.' As for (1e), when attached to adjectival bases, *-ish* means 'somewhat' and weakens the meaning of the bases. Here, adjectives formed by attaching *-ish* to nouns or adjectives are called "N-ish" and "A-ish," respectively.

In addition to such roles of *-ish*, the question of whether the derivatives *N-ish* and *A-ish* accept the attachment of the suffixes *-ness* (forming nouns) or *-ly* (forming adverbs) has been discussed in recent years. For the (un)acceptability of *X-ishness* and *X-ishly*, Takahashi (2009) argues that *-ness* and *-ly* can be attached to *N-ish*, but

not to *A-ish*, as in *cattishness/cattishly* versus **oldishness/*oldishly*. That is claimed to be because *N-ish* has an idiosyncratic meaning while *A-ish* has only the compositional meaning of 'somewhat A.' However, looking through some dictionaries such as the *OED*, *Reader*, and *RHD* (see the "Dictionaries" section in the references for the names of the abbreviated forms), we find *A-ishness* and *A-ishly* are listed as existing words in them. In this paper, I investigate how the words *A-ishness* and *A-ishly* are formed from the viewpoint of Construction Morphology proposed by Booij (2010), and suggest that *A-ishness* and *A-ishly* function as "constructions" at the word level.

This paper is organized as follows. Section 2 presents a review of Takahashi (2009) and considers certain problems with it. In Sections 3 and 4, I observe the data of *A-ishness* and *A-ishly* within the database *LexisNexis Academic* with respect to their frequency of use, and propose an analysis for the word formation processes of these derivatives. Section 5 concludes this paper with some comments on remaining issues.

2 A Previous Study

2.1 Takahashi (2009)

Under the hypothesis proposed by Siegel (1974) and Allen (1978), Class II affixes (e.g., *-ness*, *-less*, *-ful*, *-ly*, *non-*) can be attached outside other Class II affixes. Takahashi (2009) argues that the generative processes of *A-ishness* and *A-ishly* cause one type of overgeneration problem derived from this ordering hypothesis, namely the problem that a derived word is not generated properly in spite of the satisfaction of the restriction on affix ordering. Let us look at the following examples.

(2) a.　N-ish: selfish, girlish, sheepish
　　　b.　N-ishness: selfishness, girlishness, sheepishness
　　　c.　N-ishly: selfishly, girlishly, sheepishly

(3) a.　A-ish: baddish, oldish, shortish
　　　b.　*A-ishness: *baddishness, *oldishness, *shortishness
　　　c.　*A-ishly: *baddishly, *oldishly, *shortishly

(based on Takahashi 2009: 155, 160)

The suffixes *-ness* or *-ly* can be attached to *N-ish* as in (2b) and (2c), while they cannot be attached to *A-ish* as in (3b) and (3c). The suffixes *-ish*, *-ness*, and *-ly* belong to Class II affixes, and therefore all the words *X-ishness* and *X-ishly* should be generated properly under the ordering hypothesis and could be existing words. However, *A-ishness* and *A-ishly* are claimed to be morphologically well-formed but non-existent.

For this overgeneration problem, Takahashi claims that the (un)acceptability of *X-ishness* and *X-ishly* can be explained in terms of lexicalization: whether the meanings of the *-ish* derivatives are compositional or not.[2] For example, *N-ishness* and *N-ishly* are assumed to have the following internal structures.
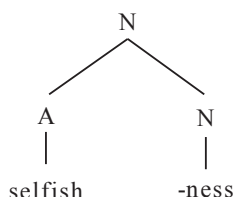
(4) a. *N-ishness*   b. *N-ishly*
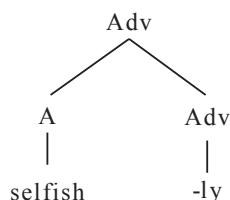
(Takahashi 2009: 184)

The word *selfish* in (4), which is derived from the noun *self* with the meaning of 'the type of person you are,' has the idiosyncratic meaning not inherent in the base noun, namely, 'caring only about yourself rather than about other people.' Due to the occurrence of lexicalization, *selfish* is considered to have a non-branching structure as in (4). Hence, *selfishness* and *selfishly* can be generated properly.

On the other hand, the generative processes of *A-ishness* and *A-ishly* can be schematized as in (5).
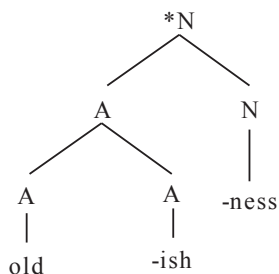
(5) a. *A-ishness   b. *A-ishly
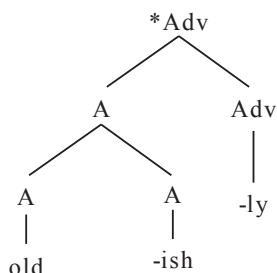
(Takahashi 2009: 183)

In (5), the word *oldish* has the binary-branching structure, because this word simply means 'somewhat old' and is not lexicalized. Therefore, *oldishness* and *oldishly* cannot be generated properly.

2.2 Counter-examples

In Section 2.1, I have presented a brief discussion of the generative processes of *X-ishness* and *X-ishly* given in a previous study. In particular, it has been consistently claimed that the formations of *A-ishness* and *A-ishly* are unacceptable since the meaning of *A-ish* is compositional (i.e., *A-ish* means 'somewhat A'). However, what is problematic for the previous study is that *A-ishness* and *A-ishly* presented below are listed in the dictionaries such as *Reader*, *Genius*, and *RHD*.

(6) blackishness, bluishness, dampishness, darkishness, faintishness, fattishness, greenishness, newishness, pinkishness, purplishness, rawishness, reddishness, roundishness, sickishness, squarishness, sweetishness, weakishness, whitishness
                                                                [A-ishness]

(7) blackishly, cheapishly, dampishly, grayishly, greenishly, newishly, reddishly, sickishly, squarishly, sweetishly, weakishly   [A-ishly]

Moreover, *baddishness* and *oldishness*, which are not regarded as existing words in the previous analysis, can also be attested on the Internet as follows.

(8) However, he determined to put the best face on matters, and was beginning a
     conversation about the state of the weather, the **baddishness** of the crops, and
     the price of goats in that part of the country, when he heard a violent screaming.

                                                 (Washington Irving, *Tales of a Traveller II*, 1824)

(9) 'Well, what is the use in having youth now? My age too has crossed thirty-five.'
     — 'Thirty-five is not enough an age for **oldishness**?'

                      (Munshi Premchand, *Mansarovar - Part II: Short stories by premchand*)

The existence of the relevant words in (6)-(9) is not compatible with the idea that
-ness and *-ly* cannot be attached to *A-ish*, and it follows that their formations nullify
the overgeneration problem of the ordering hypothesis. From another viewpoint, we
may assume the following: the meaning of *A-ish* could be non-compositional like
that of *N-ish*, and thus a new word would be formed by the morphological rule that
adds *-ness* or *-ly* to *A-ish*. However, given the semantic transparency of *baddishness*
and *oldishness* shown in (8) and (9), *A-ishness* and *A-ishly* do not always show an
idiosyncratic meaning. Therefore, a new approach will be needed to examine how
A-ishness and *A-ishly* are to be derived.

3 Data

In this section, I will show the frequency of use of *A-ishness* and *A-ishly* before
analyzing their word formation processes from a different perspective. In order to
narrow down the area of my search, I first extract the *A-ish* words (107 items) listed
in the *Genius*, *PRD*, *RHD*, and *Reader*. Then, on the basis of this word list, I search
for the words *A-ishness* and *A-ishly* in the database *LexisNexis Academic* and
investigate the number of different words (types) and the total number of words
(tokens). *LexisNexis Academic* is an information retrieval system that provides
access to a variety of sources like news, business, and legal publications. By using
this database, we can easily find word forms not attested in corpora like BNC and
COCA, although it is impossible to search for strings with regular expressions in this
database.

3.1　Type and Token Frequencies

Let us observe the data of *A-ishness* and *A-ishly* drawn from *LexisNexis Academic*. First, the number of occurrences of *A-ishness* is shown in Table 1. The column 'Type' represents the different instantiations of words, and the column 'Tokens' indicates how often the respective forms occur in the database.

Table 1: The frequencies of *A-ishness* in *LexisNexis Academic*

Type	Tokens	Type	Tokens	Type	Tokens
moreishness	108	coyishness	3	dryishness	1
leftishness	55	flattishness	3	lowishness	1
reddishness	45	goodishness	3	plumpishness	1
bluishness	30	longishness	2	queerishness	1
noirishness	24	dullishness	2	roundishness	1
greenishness	12	faintishness	2	sickishness	1
pinkishness	11	purplishness	2	smoothishness	1
greyishness	7	wettishness	2	softishness	1
yellowishness	6	sweetishness	1	sourishness	1
blackishness	4	biggishness	1	youngishness	1
newishness	4	brownishness	1		
whitishness	4	cleverishness	1		

As illustrated in Table 1, *A-ishness* has 34 different types and 343 tokens in the database. Compared with *A-ish*, which has 107 different types and occurs 61,525 times in the same database, *A-ishness* does not seem to be used very often and has low type and token frequencies. We also notice words with the lowest frequency, like *sweetishness*, *biggishness*, and *sickishness*. They are called "hapax legomena," that is, forms that occur only once in a given corpus. As for *A-ishness*, 14 of the 34 types are hapax legomena. The relationship between hapax legomena and productivity will be explained in detail in Section 4.2, where we will see that hapax legomena as well as type frequency are essential for determining the productivity of derived words and that the possibility of finding newly coined words becomes stronger with the increase in these indices.

Next, I will show the number of occurrences of *A-ishly* in *LexisNexis Academic*. I examined the type and token frequencies of *A-ishly* as well, and the results are

given in Table 2.

Table 2: The frequencies of *A-ishly* in *LexisNexis Academic*

Type	Tokens	Type	Tokens	Type	Tokens
moreishly	122	bluishly	3	cleverishly	1
noirishly	53	reddishly	3	firmishly	1
sharpishly	36	warmishly	3	flattishly	1
leftishly	12	yellowishly	3	maddishly	1
dullishly	9	dryishly	2	plumpishly	1
coyishly	8	longishly	2	roughishly	1
greenishly	8	purplishly	2	smallishly	1
squarishly	8	sickishly	2	softishly	1
newishly	7	slowishly	2	sourishly	1
greyishly	4	stiffishly	2	steepishly	1
pinkishly	4	sweetishly	2	thickishly	1
cheapishly	3	blackishly	1	weakishly	1
coolishly	3	brownishly	1		

A-ishly has 38 different types and occurs 317 times in the database. In addition, 14 of the 38 types are hapax legomena. There is little difference between *A-ishness* and *A-ishly* with respect to the frequency of use, and as expected, the form of *A-ishly* is not used as frequently as that of *A-ish*. The existence of hapax legomena such as *blackishly*, *smallishly*, and *sourishly* has to do with productivity, and this will also become obvious in Section 4.2.

3.2 Examples of *A-ishness* and *A-ishly*

One of the remarkable points in Tables 1 and 2 is that the most frequent formations are *moreishness* (108 tokens) and *moreishly* (122 tokens). The word *moreish*, which is originally derived from the adjective *more*, means 'having a very pleasant taste and making you want to eat more' with respect to food or drink, and this meaning itself is non-compositional. In (10), *moreishness* simply refers to a state or quality, and *moreishly* to a manner or degree.

(10)   a.   ... breadcrumbs and the makings of a béchamel binding gloop, which
              enabled him to produce an explosively meaty, salty, crunchy burger of

surpassing **moreishness**. (*The Times*, July 13, 2002)

b. I was presented with a plate of three fritters which were **moreishly** spicy with a fantastic sweet green chilli jam and mango salsa, which offset the spice perfectly and my plate was cleaned ...

(*Liverpool Echo*, June 20, 2014)

Another point to note is that all the words of *A-ish* in *A-ishness* and *A-ishly* have compositional meanings, except for *moreishness* and *moreishly*. (As for *moreishness* and *moreishly*, I tentatively regard them as cases of specialization of sense, boosted by their high token frequencies. Further research is required for the explanation of this phenomenon.) Unlike *selfishness* and *selfishly* deriving from a base noun, the existence of *A-ishness* and *A-ishly* does not necessarily imply that *A-ish* has an idiosyncratic meaning, and is thereby predicted by Takahashi to reject the *-ness* or *-ly* attachment. The following examples are forms of *A-ishness* and *A-ishly* denoting colors, which tend to be used relatively frequently in various contexts. In particular, the high frequency of forms such as *reddishness* and *bluishness* is corroborated by the number of tokens illustrated in the above table.

(11) a. [About sweet peas] ..., there was clearly nothing to beat the current best-selling white Royal Wedding or the cream Jilly for shape, form or scent, although I liked the slight **greenishness** of the White Leamington.

(*The Times*, August 22, 1992)

b. We instruct the consumer to cook it for 20 minutes, and specifically not to consume the product if there is any **pinkishness** in the meat.

(*The Irish Times*, November 13, 1998)

c. However, the substandard tomato pastes contain little or no Lycopene. The **reddishness** is achieved by adding colouring which, most times, is impossible for the body to dispose of.

(*This Day*, August 10, 2015)

d. When the body does not receive sufficient oxygen, a person can suffer from cyanosis, which results in **bluishness** of skin," Dr. Agarwal said.

(*Hindustan Times*, November 3, 2015)

(12) a. I stared at the burglar alarm panel, with **greenishly** backlit buttons, like

fragments of a Timex Indiglo.

(*The Washington Post*, May 5, 1996)

b.   "At a time when 'the river flowers are redder than flame at Sunrise and river water is **bluishly** green in early Spring', the Northern Air meets you again with strong local sentiment of Northeast China ...

(*Sydney Morning Herald*, August 17, 1992)

c.   The researchers have taken the delphinidin gene which imparts blueness to some flowers from a petunia and have introduced it to the **reddishly** purple/mauve rose Cardinal de Richelieu.

(*Canberra Times*, November 11, 2008)

Moreover, there are other examples that denote a sense of taste, a quality of human beings, or form. Parts of the expressions attested in the database are as follows:

(13)   a.   For entree, we tried cured salmon. Cured in-house, it arrived **sweetishly** tender and fresh.   (*Sunday Herald Sun*, June 3, 2001)

b.   A heavyweight of a wine, molasses thick and sweet but with exquisite **sourishness** of pineapple. The extreme sweetness was balanced and relieved by the acidity.

(*The Business Times Singapore*, February 19, 2010)

c.   ..., he smiled **coyishly** each time the audience acknowledged him through applause.   (*Africa News*, June 15, 2008)

d.   A rather **squarishly** built man with grizzled features, he was witty and affable.   (*The Independent*, April 20, 2002)

e.   "An excellent idea maybe, but this design is just bad." "It's got a **plumpishness**, which, to me, isn't very Porsche-like."

(*AutoWeek*, July 30, 2007)

The examples in (13a) and (13b) mean 'a sense of taste,' that in (13c) 'a quality of human beings,' and those in (13d) and (13e) 'form.' The meanings of *A-ishness* and *A-ishly* like (11)-(13) are compositional, simply denoting 'a state or quality of being somewhat A-ish' or 'in a manner or degree of being somewhat A-ish.' The *OED* (in the entry for *-ish*, 5) says that *X-ishness* and *X-ishly* are formed freely.

4 A Constructional Approach to *A-ishness* and *A-ishly*

The aim of this section is to explore the possibility of analyzing *A-ishness* and *A-ishly* as constructions at the word level. More specifically, I will propose an analysis for their word formation processes based on Booij's (2010) Construction Morphology and give my views of the occurrence of new coinages and the degree of productivity.

4.1 An Outline of Construction Morphology

The notion of "construction," defined as a pairing of form and meaning, has often been used in the framework of Construction Grammar (Goldberg 1995, 2006). Goldberg (1995) emphasizes that the meaning of a construction is not predictable from the meaning of its constituents or from its structure (e.g., the transitive use of the verb *sneeze* in *Frank sneezed the tissue off the table*). Also, Goldberg (2006) adopts a perspective of "frequency," and proposes that productive and compositional expressions are stored as constructions in parallel with idiomatic expressions, as shown in (14).

(14)   Any linguistic pattern is recognized as a construction as long as some aspect
         of its form or function is not strictly predictable from its component parts or
         from other constructions recognized to exist. In addition, patterns are stored
         as constructions even if they are fully predictable as long as they occur with
         sufficient frequency.   (Goldberg 2006: 5)

In recent studies on word formation, Booij (2010) applies this framework of Construction Grammar to the morphological analysis of words. This approach to morphology is called "Construction Morphology." In Booij's Construction Morphology, word formation patterns can be seen as abstract schemas that express generalizations about sets of existing words. For example, we are thought to acquire the schema shown in (15) by generalizing the form and meaning of English deverbal nouns ending in *-er* like (16).
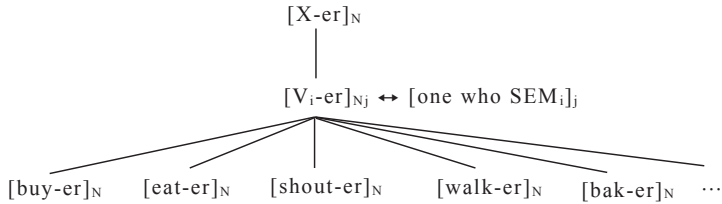
(15) $[[x]_V \, er]_N$ 'one who Vs' (Booij 2010: 2)

(16)   buyer, eater, shouter, walker, baker, runner, seller, smoker, teacher

The schema in (15) represents a morphological construction (i.e., a pairing of form and meaning at the word level), and each individual *-er* noun in (16) is an instantiation of the schema in (15). This schema allows language users to create new *-er* nouns such as *skyper* 'one who skypes,' and as a result, such a productive word formation pattern can be regarded as a type of construction.

    According to Booij, the basic conceptions of Construction Morphology include the "hierarchical lexicon" and "subschemas." As for deverbal nouns in *-er*, the relation of individual words and abstract schemas that they instantiate can be modelled in a hierarchical lexicon as follows.

(17)

$$[\text{X-er}]_N$$

$$[\text{V}_i\text{-er}]_{Nj} \leftrightarrow [\text{one who SEM}_i]_j$$

$$[\text{buy-er}]_N \quad [\text{eat-er}]_N \quad [\text{shout-er}]_N \quad [\text{walk-er}]_N \quad [\text{bak-er}]_N \quad \cdots$$

Individual words such as *buyer* and *eater* form the lowest nodes of the trees, and each node inherits the properties of its dominating nodes. The schema $[\text{V-er}]_N$ is a subschema of the general schema $[\text{X-er}]_N$. Thus, word formation schemas are "product-oriented" in that the schemas summarize the common properties of individual words.[3)]

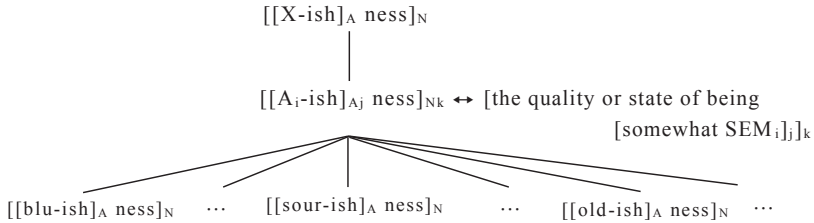## 4.2 Word Formation Schemas and their Productivity

    Now I proceed to the discussion of word formation patterns of *A-ishness* and *A-ishly*. Following Booij's Construction Morphology, I present each schema for *A-ishness* and *A-ishly* as in (18) and (19), where A stands for the adjectival base, the symbol ↔ the form-meaning correspondence, and SEM the meaning of A.

(18) $[[\text{A}_i\text{-ish}]_{Aj} \text{ ness}]_{Nk} \leftrightarrow [\text{the quality or state of being } [\text{somewhat SEM}_i]_j]_k$

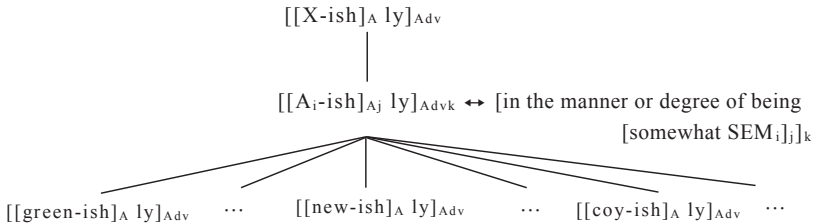(19) $[[\text{A}_i\text{-ish}]_{Aj} \text{ ly}]_{Advk} \leftrightarrow [\text{in the manner or degree of being } [\text{somewhat SEM}_i]_j]_k$

The schemas in (18) and (19), which are also morphological constructions, express generalizations about the form and meaning of existing *A-ishness* and *A-ishly*. That is, the relevant words in (6)-(9) and the words listed in the two tables in Section 3.1 are instantiations of the schemas in (18) and (19). I assume here that *A-ishness* and *A-ishly* form their own constructional schemas in a hierarchical lexicon. By generalizing about sets of existing words of *A-ishness* and *A-ishly*, language users acquire the above word formation schemas. Consequently, through the operation of replacing the variable A in the schemas with a concrete adjective, new words of *A-ishness* and *A-ishly* can be created. Consider the word in (9) as an example. The unification of the adjective *old* with the schema in (18) results in the word *oldishness* 'the quality or state of being somewhat old with respect to a person.' We can assume the hierarchies in which the schemas (18) or (19) dominate the individual words at the bottom as follows:

(20)

$$[[\text{X-ish}]_A \ \text{ness}]_N$$

$$[[A_i\text{-ish}]_{Aj} \ \text{ness}]_{Nk} \leftrightarrow [\text{the quality or state of being} \ [\text{somewhat SEM}_i]_j]_k$$

$$[[\text{blu-ish}]_A \ \text{ness}]_N \quad \cdots \quad [[\text{sour-ish}]_A \ \text{ness}]_N \quad \cdots \quad [[\text{old-ish}]_A \ \text{ness}]_N \quad \cdots$$

(21)

$$[[\text{X-ish}]_A \ \text{ly}]_{Adv}$$

$$[[A_i\text{-ish}]_{Aj} \ \text{ly}]_{Advk} \leftrightarrow [\text{in the manner or degree of being} \ [\text{somewhat SEM}_i]_j]_k$$

$$[[\text{green-ish}]_A \ \text{ly}]_{Adv} \quad \cdots \quad [[\text{new-ish}]_A \ \text{ly}]_{Adv} \quad \cdots \quad [[\text{coy-ish}]_A \ \text{ly}]_{Adv} \quad \cdots$$

The individual items *A-ishness* and *A-ishly* are stored in each hierarchical lexicon, where $[[\text{A-ish}]_A \ \text{ness}]_N$ and $[[\text{A-ish}]_A \ \text{ly}]_{Adv}$ are characterized as intermediate schemas (or subschemas). The formations of *A-ishness* and *A-ishly*, including newly coined words, are considered to be accounted for by the presence of the word formation

schemas in (18) and (19), rather than by the addition of an affix to a base word in the traditional approach of Aronoff (1976). In sum, *A-ishness* and *A-ishly* can be qualified as "constructions" at the word level even if their meanings are fully predictable.

Next, let us consider the issue of morphological productivity of *A-ishness* and *A-ishly*. The notion of "productivity" has often been defined as the probability of finding a new word, or as the degree of entrenchment of a schema for an expression. Here, I adopt the view of Hilpert (2014), who defines the productivity of a morphological construction as in (22).

(22)   The productivity of a schematic morphological construction describes the degree of cognitive ease with which speakers can produce or process new complex words on the basis of that construction.   (Hilpert 2014: 81)

This definition implies the following: the abstract schema behind a word formation process is a construction if that schema allows language users to produce or understand newly coined words. In addition, Hilpert (2014: 82) suggests that "type frequency" and "hapax legomena" are the important factors determining the productivity of a morphological construction. The productivity can be calculated by dividing the number of hapax legomena by the number of types. The ratio of hapax legomena to total types indicates the degree of productivity.

As for the frequencies of *A-ishness* and *A-ishly*, I have already examined the numbers of their types, tokens, and hapax legomena in *LexisNexis Academic*. Based on Hilpert's view and the survey results in Section 3.1, the difference in the frequencies of derivatives, including *A-ish*, is illustrated below.

Table 3: The frequencies of use of *A-ish* and *A-ishness/A-ishly*

derivatives	type freq.	token freq.	hapax freq.	*P*
A-ish	107	61525	0	0%
A-ishness	34	343	14	41.2%
A-ishly	38	317	14	36.8%

(*P* = hapax/type freq. 'productivity')

It is true that *A-ishness* and *A-ishly* are less productive from the perspective of type

and token frequency, but compared with *A-ish*, these derivatives have a relatively high ratio of hapax legomena: Table 3 shows that the ratios of hapax legomena for *A-ishness* and *A-ishly* are 41.2% and 36.8%, respectively. Moreover, the number of hapax legomena contributes to the acquisition of the word formation schemas of *A-ishness* and *A-ishly*. This is because these schemas are likely to become entrenched as the number of types increases, and the variety of different words including hapax legomena leads to the occurrence of new coinages. Therefore, the word formation schemas of *A-ishness* and *A-ishly* are "productive" in that they are becoming entrenched.

Thus far, I have presented an analysis of *A-ishness* and *A-ishly* on the basis of Construction Morphology, focusing on their word formation schemas and productivity. The major points of my research are summarized as follows:

(23) a. *A-ishness* and *A-ishly* can occur as existing words: they exist as "constructions" at the word level even if their meanings are fully compositional.

b. *A-ishness* and *A-ishly* form their own constructional schemas in the hierarchical lexicon. These schemas account for a productive word formation process and allow language users to newly coin *A-ishness* and *A-ishly*.

c. Word formation schemas of *A-ishness* and *A-ishly* are "productive" in that the degree of entrenchment of the schemas is increasing, and the productivity of these words is determined by "type frequency" and "hapax legomena."

However, a variety of problems remain unsolved at the present stage. The analysis of *A-ishness* and *A-ishly* proposed in this research focuses mainly on existing words listed in the dictionaries or found in the database. Therefore, this research lacks a sufficient explanation for non-occurring words. Furthermore, I need to deal with the question of how the word formation schemas in (18) and (19) produce words that have figurative meanings like (24) and (25).

(24) It's the fact that an electric car is no greener than a school-run SUV crossover or a mid-size executive sedan that means the electric car has no immediate or

medium-term future in SA. But, as the report shows, those pesky hybrids are a much better option for the **greenishly** inclined, and Toyota has just released a new one ...   (*Business Day*, October 10, 2012)

(25)   And there, perhaps, is the difference from Mr Walker. Peter Walker likes to make a splash, David Hunt is the tidy political diver. **Wettishness**, indeed, almost cost Mr Hunt his political career.

(*The Times*, March 15, 1990)

In the above examples, the meanings of *greenishly* and *wettishness* are figurative: *greenishly* denotes 'in the manner or state of being somewhat good for the environment,' and *wettishness* denotes 'the state of being politically dishonest.' As for the semantics of the adjectival bases, *green* has the meanings 'concerned with the protection of the environment' as well as 'having the color of grass or leaves'; on the other hand, *wet* has the literal meaning 'covered with water or some other liquid, or not yet dry' and rarely seems to be used in a figurative sense. *Greenishly* used figuratively could be a kind of new coinage produced by replacing the variable A in the schemas $[[A\text{-ish}]_A \text{ ly}]_{Adv}$ with a figurative adjectival base. However, the same reasoning does not apply to the case of *wettishness*. If we try to analyze the word formation processes of *greenishly* and *wettishness* using the constructional morphology approach, we will have to reconsider the semantic specifications of the constructional schemas and the status of the words that have figurative meanings in the hierarchical lexicon.

5 Conclusion

In this paper, I began with an examination of Takahashi's (2009) view of the unacceptability of the derivatives *A-ishness* and *A-ishly*, and argued against his view that the suffixes *-ness* and *-ly* cannot be attached to *A-ish* 'somewhat A' due to the semantic transparency of *A-ish*. Though the meanings of *A-ishness* and *A-ishly* are compositional, they are listed as existing words in the dictionaries. Then, in order to investigate the word formation processes of *A-ishness* and *A-ishly*, I collected them from *LexisNexis Academic*, counted their occurrences, and analyzed how they can be formed based on Booij's (2010) Construction Morphology. Through this analysis, I

presented the following views: (i) *A-ishness* and *A-ishly* exist as constructions at the word level, (ii) language users are considered to acquire the word formation schemas [[A-ish]$_A$ ness]$_N$ or [[A-ish]$_A$ ly]$_{Adv}$ by generalizing sets of existing *A-ishness* and *A-ishly*, thereby producing or understanding newly coined words, and (iii) these word formation schemas are productive with respect to type frequency, hapax legomena, and the degree of entrenchment.

As I have pointed out, the forms of *A-ishness* and *A-ishly* are regarded as morphologically well-formed but non-occurring in a previous study, but their examples can be attested by dictionaries or *LexisNexis Academic*. I would like to claim that the acceptability of *A-ishness* and *A-ishly* can be captured by the unification of an adjectival base and the word formation schemas like (18) and (19), rather than by a morphological rule that adds -*ness* or -*ly* to *A-ish*. I also discussed the occurrences of words that have figurative meanings like *greenishly* and *wettishness*. However, as mentioned in Section 4.2, there remain some presently unsolved issues, and therefore the analysis of *A-ishness* and *A-ishly* based on Construction Morphology will require further research.

[Notes]

1) This paper is a revised version of the presentation at the 34th Annual Conference Student Workshop of the English Linguistic Society of Japan held at Kanazawa University on November 12, 2016. I would like to thank Sadayuki Okada, Naoko Hayase, Tomoko Nakao, and Hiromasa Itagaki for their helpful comments. All remaining errors are of course my own.

2) For the term "lexicalization," Takahashi (2009) does not present a detailed explanation, and seems to interpret "the lack of semantic coherence" developed by Aronoff (1976) as the criterion for lexicalization 'goi-ka.' Aronoff states the semantics of the -*ness* derivatives in (i) is more coherent than that of the -*ity* derivatives in (ii).

(i) The meanings of Xousness:
   a. 'the fact that Y is Xous' (e.g., 'His **callousness** surprised me.')
   b. 'the extent to which Y is Xous' (e.g., 'His **callousness** surprised me.')
   c. 'the quality or state of being Xous' (e.g., '**Callousness** is not a virtue.')

(ii) a. How many **varieties** of fish are there in the pond?
   b. They admired his dress, but only as a **curiosity**.

c.   The **continuities** for next week's episode.

<div align="right">(based on Aronoff 1976: 38-39)</div>

All the words of Xousness in (i) have compositional meanings, and Aronoff regards this as semantic coherence. On the other hand, the meanings of the *-ity* derivatives in (ii) are non-compositional. The derivatives like (ii) are therefore not semantically coherent, and are considered as "lexicalized" in that a derived word has an idiosyncratic meaning not inherent in the base.

3)   Following Goldberg (2006) and Booij (2010), I regard word formation schemas as formed in a "usage-based" model, where linguistic generalizations are formed by the actual use of linguistic expressions.

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PRD: *Progressive Reverse English-Japanese Dictionary* (1999) Shogakukan.
Reader: *English-Japanese Dictionary for the General Reader (2nd Edition)* (1999) Kenkyusha.
RHD: *Random House English-Japanese Dictionary 2nd Edition* (1993) Shogakukan.

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LexisNexis Academic (http://www.lexisnexis.com/ap/academic/?lang=en)

(Graduate Student)

SUMMARY

Word Formation Processes of *A-ishness* and *A-ishly*:
A Construction-Based Approach

Yuki Kɪκᴜᴄʜɪ

The derivational suffix *-ish* combines primarily with nouns and adjectives to form adjectives. In particular, when *-ish* is attached to adjectival bases, the derivative *A-ish* has the meaning of 'somewhat A' (e.g., *coldish*, *greenish*, *sweetish*, etc.). According to Takahashi (2009), the suffixes *-ness* (forming nouns) and *-ly* (forming adverbs) cannot be attached to *A-ish*, because the meaning of *A-ish* is compositional and compositional bases are claimed to reject further affixation (e.g., *oldishness, *oldishly). However, *A-ishness* and *A-ishly* are listed as existing words in dictionaries and the actual use of these words can also be confirmed on the Internet. In this paper, I investigate how *A-ishness* and *A-ishly* are formed from the viewpoint of Booij's (2010) Construction Morphology, which is based on the framework of Construction Grammar developed by Goldberg (1995, 2006). Specifically, I extract the examples of *A-ishness* and *A-ishly* occurring in the database *LexisNexis Academic*, count their occurrences, and analyze their word formation schemas and productivity. Then I also adopt Hilpert's (2014) view of morphological productivity. Through this investigation, I argue that (i) *A-ishness* and *A-ishly* exist as constructions at the word level, (ii) language users are considered to acquire the word formation schemas by generalizing the form and meaning of existing *A-ishness* and *A-ishly*, thereby producing or understanding newly coined words, and (iii) these word formation schemas are productive because of their type frequency, the abundance of hapax legomena, and the degree of entrenchment.