1. **Introduction**

Japanese has recently seen the emergence of four-mora unaccented bipartite adjectives, such as *huwa-toro* ‘fluffy and creamy’ and *saku-uma* ‘crunchy and yummy,’ in casual discourse. They are typically derived from two mimetics or adjectives, as in (1).

(1) a. *huwahuwa* ‘fluffy’ [MIM] + *torotoro* ‘creamy’ [MIM] 
   → *huwa-toro* ‘fluffy and creamy’

b. *sakusaku* ‘crunchy’ [MIM] + *umai* ‘yummy’ [Adj]
   → *saku-uma* ‘crunchy and yummy’

These adjectives (henceforth “XY adjectives”) are often used alone or in attributive or predicative constructions that describe food, fashion, or personality (Akita, 2014), as illustrated in (2).

(2) a. *moti-huwa-*na pan
   chewy-fluffy-COP bread
   ‘the bread that is chewy and fluffy’

b. *kimo-kawa-*na kyarakuta
   disgusting-cute-COP character
   ‘a character that is disgusting but cute’

c. *huwa-toro-*no omuretu
   fluffy-creamy-COP omelet
   ‘an omelet that is first fluffy and then creamy’

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d. Kono ebi-hurai-wa *saku-uma*-da.
   this shrimp-fry-TOP crunchy-yummy-COP
   ‘This fried shrimp is crunchy and (therefore) yummy.’

e. Kono sukaato *metya-kawa*!
   this skirt very-cute
   ‘This skirt is very cute!’

XY adjectives may also form nominal compounds, such as *huwa-toro-omuretu* (fluffy-creamy-omelet) ‘a fluffy and creamy omelet’ and *tyoi-waru-oyazi* (a.little.bit-playboy.like-middle.aged.man) ‘a middle-aged man who is a little bit like a playboy.’

The organization of this paper is as follows. Section 2 summarizes related studies on the semantic ranges of conventional compound predicates. Section 3 proposes a semantic classification of XY adjectives. Section 4 compares XY adjectives with conventional compounds, discussing what is (not) special about their semantics. Section 5 concludes the paper.

2. Previous Studies

Previous findings about conventional compounds help us to discuss the semantic diversity of XY adjectives. Here, we cite representative semantic classifications of adjectival and verbal compounds in Japanese (and English).

Yumoto and Kageyama (2009) classify adjectival compounds in Japanese and English, noting three major types of compound adjectives: modification, coordination, and argument incorporation. Modification compounds consist of a modifying element and a head element that follows it, as illustrated by *ice-cold* ‘cold as ice’ in English and *musi-atui* (steam-hot) ‘steaming hot’ in Japanese. Coordination compounds, which are not very productive, consist of two similar (often antonymic) elements, as in *bittersweet* ‘bitter and sweet’ and *ama-zuppai* (sweet-sour) ‘sweet and sour.’ Argument incorporation compounds involve a predicate that follows its argument, as in *class-conscious* ‘conscious of classes’ and *hara-guroi* (stomach-black) ‘sly.’

Chen and Matsumoto (2018: Ch. 4) classify Japanese verbal compounds into thirteen semantic types, as in (3) (translation ours except for (3a, b, d, e), which are cited from Matsumoto, 2011).

(3) a. Cause (e.g., *uki-agaru* (float-rise) ‘float up’)
   b. Means (e.g., *tataki-kowasu* (hit-break) ‘break by hitting’)
   c. Preliminary (e.g., *wari-ireru* (break-put.in) ‘break (an egg) and put (it) in’)
   d. Background (e.g., *kiki-nogasu* (hear-miss) ‘fail to hear’)

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e. Manner (e.g., *mai-otiru* (dance-fall) ‘flutter down’)

f. Concomitance (e.g., *sagasi-mawaru* (search-go.around) ‘look around for’)

g. Figurative manner (e.g., *kurui-zaku* (go.mad-bloom) ‘bloom out of season’)

h. Same-event (e.g., *tobi-haneru* (fly-jump) ‘jump up and down’)

i. Event complementation (e.g., *dasi-osimu* (put.out-regret) ‘grudge’)

j. Derivative (e.g., *uti-agaru* (hit-rise) ‘be launched’ (< *uti-ageru* (hit-raise) ‘launch’) )

k. Bleached V1 (e.g., *uti-hurueru* (hit-shiver) ‘tremble with fear’)

l. Subsidiary V2 (e.g., *mi-ageru* (look-raise) ‘look up’)

m. Opaque (e.g., *tori-simaru* (take-close) ‘supervise’)

It is worth noting that the figurative manner type (3g) and the bleached V1 type in (3k) are similar to modification-type adjectives in that the first element modifies (or intensifies) the second element. Moreover, the same-event type in (3h) is similar to coordination-type adjectives in that the two components contribute equally to the compound meaning. The event complementation type in (3i) shares complementation semantics with argument incorporation adjectives.

The semantic range of XY adjectives overlaps with that of these conventional compounds. In the following section, we will show that despite their adjectival status, XY adjectives are similar to verbal, rather than adjectival, compounds, and they also crucially differ from both.

### 3. Semantic Classification of XY Adjectives

We collected 91 XY adjectives from 390 youngsters, most of whom were undergraduate students in the Nagoya area, as well as from the internet (see Akita and Murasugi (in preparation) for a full list of XY adjectives). We classify them into six according to the semantic relation between X and Y, as in (4).


b. Antonymy (13 types): *kimo-kawa* ‘disgusting but cute,’ *uzaku-wa* ‘annoying but cute,’ *dasa-ike* ‘unfashionable but cool,’ *mazu-uma* ‘unappetizing (at first) but yummy’
c. Sequence (15 types):
   huwa-toro ‘first fluffy, then creamy (of omelet),’ saku-syuwa ‘first crunchy, then spongy,’ tun-dere ‘first cold but later lovestruck’

d. Reason (5 types):
   saku-uma ‘crunchy and therefore yummy,’ horo-uma ‘crumbling and therefore yummy,’ waku-teka ‘excited and therefore shining’

e. Degree (33 types):
   metya-kawa ‘very cute,’ yaba-uma ‘terrifically yummy,’ tyoi-waru ‘a little bit like a playboy,’ mazi-oko ‘really angry,’ oni-yaba ‘extremely risky’

f. Argument incorporation (4 types):
   mune-kyun ‘heart-pounding,’ huk-karu ‘light-footed’

Type (a) (synonymy) consists of synonymous elements that are semantically coordinated by AND. Type (b) (antonymy) also involves coordination, but X and Y in this category are in a BUT relation. Many Type (b) items have kawa ‘cute’ as Y. Type (c) (sequence) represents a sequence of events or properties. For example, huwa-toro is used for a food that ‘first feels fluffy, and then feels creamy,’ such as an omelet that is creamy inside. Type (d) (reason) is similar to Type (c), but it involves a causal, not a temporal, relation. For example, saku-uma means ‘crunchy and therefore yummy,’ and not vice versa. Type (e) (degree), which is particularly productive, represents some kind of degree. X in this type of XY adjective is typically an intensifier meaning ‘very’ or ‘extremely.’ Type (f) (argument incorporation) is limited in productivity. X in this category is an internal argument of Y.

4. XY Adjectives vs. Conventional Compounds

In Section 2, we noted the semantic overlap between adjectival and verbal compounds in the conventional lexicon of Japanese. In this section, we consider what is and is not special about the semantic range of XY adjectives in comparison with that of conventional compounds.

Table 1 presents a systematic comparison of XY adjectives with conventional adjectival and verbal compounds. Verbal compounds have many semantic types (see (3) above), and some of them appear to correspond to the three subtypes of adjectival compounds. Therefore, the table is based on the semantic classification of verbal compounds except for the final row (i.e., antonymy).
### Table 1. Semantic comparison of the three types of Japanese compounds

<table>
<thead>
<tr>
<th></th>
<th>Verbal compounds</th>
<th>Adjectival compounds</th>
<th>XY adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cause</td>
<td>✓</td>
<td>✓ (d) reason</td>
<td></td>
</tr>
<tr>
<td>b. Means</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Preliminary</td>
<td>✓</td>
<td>✓ ((c) sequence)</td>
<td></td>
</tr>
<tr>
<td>d. Background</td>
<td>✓</td>
<td>✓ ((c) sequence)</td>
<td></td>
</tr>
<tr>
<td>e. Manner</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Concomitance</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Figurative</td>
<td>✓</td>
<td>✓ (modification)</td>
<td>? ((e) degree)</td>
</tr>
<tr>
<td>h. Same-event</td>
<td>✓</td>
<td>✓ (coordination)</td>
<td>✓ ((a) synonymy)</td>
</tr>
<tr>
<td>i. Event</td>
<td>✓</td>
<td>? (argument incorporation)</td>
<td>? ((f) argument incorporation)</td>
</tr>
<tr>
<td>j. Derivative</td>
<td>✓</td>
<td>✓ (modification)</td>
<td>✓ ((e) degree)</td>
</tr>
<tr>
<td>k. Bleached V1</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Subsidiary V2</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Opaque</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n. Antonymy</td>
<td>✓</td>
<td></td>
<td>✓ ((b) antonymy)</td>
</tr>
</tbody>
</table>

As the table shows, the semantic range of conventional compound adjectives is a proper subset of that of XY adjectives as well as of compound verbs. Moreover, all semantic types of XY adjectives except for the antonymy type find their equivalents in conventional compound verbs.

Neither compound adjectives nor compound verbs can express “antonymic” relations. An apparent exception is a group of taste adjectives like *ama-zuppai* (sweet-sour) and *ama-karai* (sweet-salty). However, these adjectives express AND, rather than BUT, relations, such as ‘sweet and sour’ and ‘sweet and salty.’ It appears generally true that antonyms cannot maintain their antonymic relation in compounding. In fact, nominal compounds that consist of antonymic elements, such as *iki-kaeri* (go-return) ‘to and from somewhere,’ *siro-kuro* (white-black) ‘black and white,’ and *koo-haku* (red-white) ‘red and white,’ also express AND relations. To maintain their antonymic relations, we normally need phrases, as in *amaku-mo suppai* (sweet-even sour) ‘sweet but sour,’ *itta-kedo kaetta* (go.PST-but return.PST) ‘left but returned,’ and *siro-da-ga kuro* (white-COP-but black) ‘white but black.’

One possible explanation for why XY adjectives, such as *kimo-kawa* ‘disgusting but cute,’ can express contrastive relations at the word level pertains to the word formation process involved in XY adjectives. Arguably all XY adjectives involve truncation but do not necessarily involve compounding. For example, *huwa-toro* ‘first fluffy, then creamy’ is formed directly from two reduplicated mimetics: *huwahuwa* ‘fluffy’ and *torotoro* ‘creamy,’ not derived from the hypothetical mimetic compound *huwahuwa-torotoro*. Similarly, *guu-kawa* ‘overwhelmingly cute’ is a truncation of the half-fixed expression *guu-no ne-mo de-nai-hodo kawaii* (MIM:sound.of.breath-GEN sound-even go.out-NEG-degree cute) ‘cute enough to put..."
one to silence.’ Furthermore, *huk-karu* ‘light-footed’ is made from the set phrase *huttowaaku-ga karui* (footwork-NOM light) ‘one’s footwork is light.’ The untruncated compound *huttowaaku-garui*, from which this XY adjective would be derived in a derivational analysis, does not exist. Thus, the absence of compounding prior to truncation appears to account for the survival of antonymic relations in Type (b) XY adjectives. X and Y in XY adjectives do not form a totally new concept, retaining their original relationship. Crucially, this explanation can be extended to the entire semantic network of XY adjectives. Phrasal truncation allows them to have a broad range of phrasal meanings at the word level, which make them different from conventional adjectival compounds, as we saw in Table 1.

The present discussion reminds us of the colloquial clipping of some Japanese proverbs. As illustrated in (5), these expressions also do not involve compounding before truncation and retain their phrasal meanings in the truncated output.1

(5) a. tor-anu tanuki-no kawa-zan’yoo → *tora-tanu*
take-NEG raccoon.dog-GEN skin-calculation
‘don’t count your chickens before they’re hatched (*lit. estimating the sales of the skin of the raccoon dog you’ve not caught)*’

b. tana-kara botamoti → *tana-bota*
shelf-from botamochi
‘pennies from heaven (*lit. (eating) a botamochi (that fell) off the shelf)*’

c. yabu-o tutui-te hebi-o dasu → *yabu-hebi*
bush-ACC poke-GER snake-ACC put.out
‘wake a sleeping dog (*lit. poke the bushes and make a snake come out)*’

d. kamo-ga negi-o syot-te kuru → *kamo-negi*
duck-NOM scallion-ACC shoulder-GER come
‘it is all the more convenient (*lit. a duck comes with scallions)*’

e. tiri-mo tumor-eba yama-to naru → *tiri-tumo*
dust-even accumulate-if mountain-COP become
‘many a little makes a mickle (*lit. even a small amount of dust makes a mountain if accumulated)*’

1 Acronyms (e.g., *FYI* ‘for your interest’) and Chinese and Sino-Japanese four-character idioms (e.g., *isseki-nityoo* (1.stone-2.bird) ‘(killing) two birds with one stone’) may be considered further examples of phrasal truncation.
Note that in ordinary truncated compounds, which are highly productive in Japanese (Kubozono, 1995), compounding takes place first, and truncation takes place next. For example, dezitaru ‘digital’ and kamera ‘camera’ are compounded to form the compound noun dezitaru-kamera, and then it is truncated as dezi-kame. The same is true for poke-mon, which is the shortened form of the compound noun poketto-monsutaa ‘pocket monster.’ The presumed localization of phrasal truncation to the casual register of Japanese suggests the need of a register-specific treatment of word formation in morphological theory.

5. Conclusion

In this paper, we have argued that despite their morphological uniformity, XY adjectives in colloquial Japanese are semantically diverse and have both regular and unique semantic properties. Our next steps will include a theoretical analysis of this output-oriented word formation, which we expect to also account for some formal characteristics of XY adjectives, such as the irreversibility of X and Y (e.g., ?huwa-moti (fluffy-chewy), *uma-saku (yummy-crunchy)).

References