

Workshop: Figurative language and grammar

Organizer • Chair

Seiko Fujii (University of Tokyo) • **Eve Sweetser** (University of California at Berkeley)

Recent cognitive linguistic work has brought to light deep and complex relationships between grammatical structure and figurative meaning. Goldberg (1995) already demonstrated the metaphoric uses of some argument structure constructions. Sullivan (2013) has shown that in metaphoric usages mentioning both Source and Target frames, forms expressing the Source frame strongly prefer some grammatical slots, while forms expressing the Target frame prefer other slots. Stickles (2016) has pointed out systematic differences in elaboration between literal and metaphoric senses of motion verbs. Dancygier and Sweetser (2014) devote a chapter to the relationship between metaphor and grammatical constructions. This, however, is still a relatively new area of cognitive linguistics, and there is not yet much work on grammar and metaphor in non-European languages. In this workshop, we propose four presentations which will extend the scope of such analysis.

Following a brief introduction to the theme of the workshop, the first two presentations explore the interface of figurative language and grammar in separation verb constructions in English, Japanese, and Chinese. They present comparative work, showing some of the ways in which metaphoric senses of verbs require different grammatical structures than literal ones. The third presentation on Japanese color terms shows that, of the various constructions available to express color-term modification, some are more appropriate to metaphoric and metonymic use than others. The fourth presentation deals with this issue in Japanese adjective constructions.

Introduction

Presentation 1: **When metaphoric and literal meanings meet: CUT/BREAK verbs in English verb-particle constructions and Japanese compound verb constructions**

Seiko Fujii (University of Tokyo), **Eve Sweetser** (University of California at Berkeley),
Oana David (Google LLC) and **Paula Radetzky** (Kamus International)

Presentation 2: **Metaphors, sentence structure, and CUT/BREAK verbs in Mandarin**

Eve Sweetser (UC Berkeley) and **I-Hsuan Chen** (Hong Kong Polytechnic University)

Presentation 3: **Constructional and functional bases of figurative meanings of Japanese color expressions**

Hiromasa Mita (Graduate School of Arts and Sciences, University of Tokyo,
JSPS Research Fellow DC1)

Presentation 4: **Figurative meanings of sensory and emotional adjectives in Japanese: Semantic patterns of [-i adjective + noun] constructions**

Kei Sakaguchi (Graduate School of Arts and Sciences, University of Tokyo)

Discussions

We hope that presentations and discussions in this workshop (1) advance the study of the relationship between metaphors and constructions, and (2) in particular, help widen the study of this relationship, which has only begun to happen beyond English.

Selected References

- Dancygier, Barbara. and Eve Sweetser. 2014. *Figurative Language*. Cambridge: Cambridge University Press.
- Goldberg, Adele E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: The University of Chicago Press.
- Stickles, Elise. 2016. *The interaction of syntax and metaphor in gesture: A corpus-experimental approach*. Doctoral dissertation, Department of Linguistics, University of California, Berkeley.
- Sullivan, Karen. 2013. *Frames and Constructions in Metaphoric Language*. Amsterdam and Philadelphia: John Benjamins.

Workshop: Figurative language and grammar Presentation 1

Where metaphoric and literal meanings meet: CUT/BREAK verbs in English verb-particle constructions and Japanese compound verb constructions

Seiko Fujii (University of Tokyo), Eve Sweetser (University of California at Berkeley),
Oana David (Google LLC) and Paula Radetzky (Kamus International)

This paper analyzes compositional combinations of literal and metaphoric meaning in the semantics of English Verb-Particle Constructions (VPCs). English CUT/BREAK verbs and particles both have extensive metaphoric uses. We examine literal-metaphoric constructional combinations with respect to Sullivan's (2013) proposal that the more autonomous element is the one interpreted literally. The crosslinguistic relevance of such a model of hybrid literal-figurative compositionality is examined in a comparison of English VPC semantics to the Japanese compound verb construction involving verbs of CUTTING and BREAKING.

1. Background and hypothesis

CUT/BREAK verbs have extensive metaphoric uses, as shown by Bouveret & Sweetser (2009). In English Verb-Particle Constructions, both CUT/BREAK verbs and particles (Lindner 1982, 1983; Morgan 1994) have metaphoric uses, which combine in multiple ways. For example, *my car broke down* involves literal *break* but metaphoric use of the particle *down*, whereas *his mind broke down* involves neither literal breaking nor downwards motion, and the verb and particle together metaphorically represent a metaphoric event. What regularities govern composition of literal and metaphoric components?

Building on Langacker's (1987, 1997) concepts of semantic **autonomy** and **dependence**, Sullivan (2009, 2013) has shown that in grammatical constructions with content from both source and target domains of a metaphor, the target domain lexical items occupy the semantically autonomous slot (which *may or may not* be the head, depending on the construction), while the source domain items occupy the semantically dependent slot. For example, the head N is semantically autonomous in Adj-N modification, so *bright student* is a literal student, and metaphorically "bright".

The purposes of this paper are: (i) to extend the above model of hybrid literal-figurative compositionality to English Verb-Particle Constructions (VPCs) with CUT/BREAK verbs; and (ii) to examine the crosslinguistic relevance of such a model in a comparison of English VPC semantics to the Japanese compound verb constructions involving verbs of CUTTING and BREAKING.

2. Verb-Particle Constructions with CUT/BREAK verbs

Verb and Particle can contribute meaning to an English CUT/BREAK VPC in three ways:

- (1) Type 1: V refers to a physical event, while P refers to a physical result of, or direction of motion involved in that event (*cut the piece out*);
- (2) Type 2: V refers to a physical event and P refers to metaphorically-framed aspectual structure (e.g. the completive meaning of *up*, as in *slice up*); or
- (3) Type 3: V and P together metaphorically represent a metaphoric event, with each word supplying mappings from different source domains (*His mind broke down* involves neither literal breaking nor downwards motion).

Type (2) VPCs may involve a central physical verb sense (e.g. *slice up*), or more extended senses. In *The car broke down*, *break* is extended from Physical breakage to Physical Nonfunctionality (two well-correlated frames: physical loss of integrity normally results in loss of functionality for a complex functional object). *Down*, however, is metaphoric, referring to the source domain of NONFUNCTIONAL IS DOWN, for which the target domain is supplied by the verb's extended literal frame of nonfunctionality.

If context prompts a particular abstract domain (e.g., *His mind broke down*), the entire usage will be metaphoric (Type 3), since the mind is not a physical object. This usage involves a transitive chain of two distinct metaphors: the target domain of one metaphor, NONFUNCTIONAL IS DOWN (*the computer system is down*), acts as source domain of the next metaphor, MENTAL NONFUNCTIONALITY IS PHYSICAL NONFUNCTIONALITY.

Logically, Type (4) would involve metaphoric verb usage and literal particle usage – it is unattested, as Sullivan would predict, since the V is the semantic head of the VPC and more autonomous than the P.

We use a database of English CUT and BREAK VPC examples from the British National Corpus to explore these three mapping possibilities between constructional slots of VPCs frame slots in metaphors. The picture is more complex than stating that the verb picks out the source domain of a metaphor while the particle narrows down the image schema structure in that source domain. This is because (i) verbs have not only prototypical literal meanings but also extended literal meanings based on frame correlation, and (ii) as mentioned above, the different metaphoric mappings involved in V and P interpretation need to combine productively in a metaphoric “chain”.

3. Extending to Japanese compound verb constructions

We examine the crosslinguistic relevance of such a model of hybrid literal-figurative compositionality by comparison of English VPCs to the Japanese V-V compounds (Matsumoto 1996), which is not morphosyntactically parallel to English VPCs but does have parallels in compositional structure.

With compound verb constructions (either lexical compounds or syntactic compounds), we also see the three types of constructions we have detailed for English VPCs. Examples include Type 1: *kiri-taosu* (cut-topple: “cut down”); Type 2 *tabe-kiru* (eat-cut: “eat up” – ENDING IS CUTTING), and Type 3 *kiri-ageru* (cut-raise: “close, finish and truncate [meeting]” – ENDING IS CUTTING, COMPLETION IS RAISING).

(4) Type 1: V1 refers to a physical event, while V2 refers to a physical result of, or direction of motion involved in that event.

- *kiri-taosu* ‘to cut down’ (lit. cut-topple)
- *kiri-nuku* ‘to cut out’ (lit. cut-remove)

(5) Type 2: V1 refers to a physical event and V2 refers to metaphorically-framed aspectual structure.

- *tabe-kiru* ‘to manage to eat’ (lit. eat-cut)
- *yomi-kiru* ‘to read completely’ (lit. read-cut)
- *humi-kiru* ‘to step out’ (lit. step on-cut)

(6) Type 3: V1 and V2 together metaphorically represent a metaphoric event, with each word supplying mappings from different source domains.

- *osi-kiru* ‘to overcome opposition’ (lit. push-cut)
- *humi-kiru* ‘to make a bold start’ (lit. step on-cut)
- *kiri-ageru* ‘to wrap up (e.g. a meeting)’ (lit. cut-raise)

Finally, Type 4, involving metaphoric meaning of the more autonomous verbal head and literal meaning of the dependent verb, is again absent.

4. Conclusions

In sum, Sullivan’s claim holds for VPCs and its predictions are largely borne out by this area of English grammar. VPCs in English are structured more like the modifier constructions that Sullivan discussed than like the head-argument constructions. The Japanese compound verb constructions likewise seem to follow her rule and predictions, most notably in the absence of Type 4 constructions. Further crosslinguistic work on metaphor and autonomy/dependence relations is needed, but this study, having shown the crosslinguistic relevance, is a start.

References

- Bouveret, M., & Sweetser, E. (2009). Multi-frame semantics, metaphoric extensions, and grammar. In *Proceedings of the Thirty-Fifth Annual Meeting of the Berkeley Linguistics Society* (pp. 49-59).
- Langacker, R. W. (1987). *Foundations of cognitive grammar: Theoretical prerequisites* (Vol. 1). Stanford university press.
- Langacker, R. W. (1997). Constituency, dependency, and conceptual grouping. *Cognitive Linguistics (includes Cognitive Linguistic Bibliography)*, 8(1), 1-32.
- Lindner, S. (1982). What goes up doesn't necessarily come down: The Ins and Outs of Opposites, *CLS 18*, 305-32.
- Lindner, S. J. (1983). A lexico-semantic analysis of English verb particle constructions with “out” and “up”. PhD dissertation. Reprinted Bloomington, IN: Indiana University Linguistics Club.
- Matsumoto, Yo. (1996). *Complex predicates in Japanese: A syntactic and semantic study of the notion 'word'*. Stanford: CSLI Publications, Tokyo: Kuroshio Publishers.
- Morgan, P. S. (1997). Figuring out *figure out*: Metaphor and the semantics of English verb-particle construction. *Cognitive Linguistics*, 8(4), 327-357.
- Sullivan, K. (2009). Grammatical constructions in metaphoric language. In B. Lewandowska-Tomaszczyk and K. Dziwirek (eds.), *Studies in cognitive corpus linguistics*. Frankfurt/Main: Peter Lang: 57-80.
- Sullivan, K. (2013). *Frames and constructions in metaphoric language*. John Benjamins.

Workshop: Figurative language and grammar Presentation 2

Metaphors, sentence structure and CUT/BREAK verbs in Mandarin

Eve Sweetser (University of California at Berkeley)

I-Hsuan Chen (Hong Kong Polytechnic University)

This paper demonstrates that Chinese verbs of Cutting and Breaking show strong correlations between word order patterns and figurative/literal usage. In some cases, figurative vs. literal verb senses almost perfectly predict OV vs. VO word order or transitive vs. intransitive - or alternatively, the sentential structure regularly prompts literal or metaphoric construal of lexical meaning. These observations can perhaps be motivated by (1) information structure generalizations and (2) Sullivan's (2013) generalizations about semantic autonomy/dependence of constructional components.

It has been shown that metaphoric meanings interact with grammatical constructions in particular patterns (Sullivan 2013): e.g. in English attributive Adj-N constructions, source-frame meaning belongs to the adjective slot and target-frame meaning to the Noun slot (*bitter tears, dirty money*). We argue here that in Mandarin, metaphoric and literal senses of SEPARATION (CUT/BREAK) verbs correlate significantly with different patterns of transitivity, word order, and use of compound verbs. That is, given a particular verb and its lexical valence semantics, metaphoric and literal senses have separate syntactic constructional "niches."

It has been argued (Chen et al. 2017) that for a given Mandarin lexical item, the most frequent grammatical contexts of metaphoric senses are distinct from those of literal senses, as evidenced by the natural language processing task of word embedding. Here, we focus on Mandarin separation verbs, contrasting their metaphoric and literal grammatical preferences. BREAK verbs such as *po* 'break' express events of separation involving a single core patient participant (and may or may not also include a causal agent). It is thus unsurprising that literal breaking in Mandarin is predominantly expressed intransitively, unlike cutting events which normally involve agents and are transitively expressed. But 76.5% of metaphoric BREAK examples are in transitive constructions with expressed agents: *po shiyan* 'break promises', *po chuantong* 'break traditions' or *da po jilu* (hit break records) 'break records'. Promises, traditions and records can't "break" like vases, some agent necessarily breaks them.

CUT verbs (e.g. *qie* ‘cut’) are invariably transitive, but show variation in word order. Literal cutting is strongly correlated with SVO constructions, as in *qie dangao* ‘cut cakes’, while metaphoric cutting *quanxi buneng qie* (relationship cannot cut) ‘cannot cut relationship’ is frequently OV and typically subjectless. In the Chinese Gigaword corpus, 68.9% of literal CUT examples are VO and only 5.69% non-VO, while 36.3% of metaphoric CUT examples are VO and 63.6% non-OV.

As Stickles (2016) notes, manner is less expressed in metaphoric motion event descriptions than in literal ones (Time *flies*, but does not *flap* or *flutter*). Mandarin double-verb constructions canonically express manner in the first V, and resulting event in the second. CUT verbs frequently occur in the initial V1 slot as manner expressions, while literal BREAK is commonly in the V2 slot, as in *da-po* hit-break (i.e. ‘break by hitting’). However, Mandarin metaphoric BREAK uses are predominantly single-verb rather than VV constructions: in Chinese Gigaword, 60.7% of metaphoric BREAKs are single verbs with no expression of manner. Mandarin metaphoric breaking of relationships does not include a mapping for a manner (or a tool), though it does saliently involve an agent.

Thus, metaphoric and literal uses of separation verbs evoke different TRANSITIVITY and WORD ORDER constructions. This is because they differ in profiling and backgrounding of conceptual arguments (agent, manner), and are thus coherent with different syntactic constructions. These distributional differences are of added interest to a computational analyst of metaphor, since they could readily be incorporated as factors in natural language generalization for metaphoric senses of common separation verbs.

References

- Chen, I-Hsuan, Yunfei Long, Qin Lu, and Chu-Ren Huang. Leveraging Eventive Information for Better Metaphor Detection and Classification. *Proceedings of the 21st Conference on Computational Natural Language Learning (CoNLL)*: 36-46.
- Stickles, Elise. 2016. The interaction of syntax and metaphor in gesture: A corpus-experimental approach. PhD. Dissertation. University of California, Berkeley.
- Sullivan, Karen. 2013. *Frames and constructions in metaphoric language*. Amsterdam: John Benjamins Publishing.

Workshop: Figurative language and grammar

Presentation 3

Constructional and Functional Bases of Figurative Meanings of Japanese Color Expressions

Hiromasa MITA

(Graduate School of Arts and Sciences at University of Tokyo, JSPS Research Fellow DC1)

1. Introduction

Color terms, similar to other perceptual expressions, have long been topics of linguistic research due to their suggestiveness for the relationship between embodied experience and linguistic meaning. Inspired by a tradition of research beginning with Berlin & Kay (1969) and extending through their successors' monumental works, cognitive linguistics has also investigated the semantics of color vocabulary. Because color words can exhibit a wide variety of metaphoric and metonymic meanings not only in literary writing but also in everyday conversation, numerous studies have investigated such uses using physio-psychological methodologies to see how meanings of color terms might be connected to sensations of color. However, whereas such approaches are now pervasive and flourishing, the constructional and pragmatic aspects of color expressions are less discussed. In fact, inquiries into color metaphors and metonymies have tended to overlook two remarkable facts about Japanese color terms. First, they take multiple morpho-syntactically distinct forms in the same position, depending on unique pragmatic conditions, even though the colors denoted may be identical. Second, each nonliteral interpretation of a color word emerges only in particular forms of expression. This presentation will examine these facts in detail to propose that it is not plausible for the semantic extension of color words to be attributable to the physio-psychological mechanisms of colors alone. Rather, the figurative behaviors of color terms cannot be properly understood without consideration of the constructions.

2. Modifications of nouns by color terms and their constructional meanings

Before we rush into a discussion of the figurative usage of Japanese color terms, we must see how they behave in their literal senses. It is a peculiar fact about Japanese color terms that many, though not all, can take the form of more than one part of speech in one and the same syntactic position. Here for example, in the prenominal position, there are three ways that the color word *ao* ("blue") can modify a noun N, as in (1):

- (1) a. *ao-i* N (= color adjectival stem + adjectival ending *-i* + N)
 b. *ao-no* N (= color noun + genitive case *-no* + N)
 c. *ao* N (= color bound morpheme + N)

Each expression in (1) is a nominal that is literally equivalent to *blue* N in English, and of course, they denote objects blue in color without any indication of chromatic restriction and can refer to any tone of blue, so long as it can be called *ao* in Japanese.

Interestingly enough, in Japanese, COLOR (and only a few SHAPE terms) is the only semantic category that displays this multiple morpho-syntactic distribution. In particular, it is quite remarkable that Japanese color terms switch between having an adjective and a noun form. In Japanese, other conceptual categories do not exhibit this type of interchangeability. In general, properties are exclusively verbalized as adjectives, and concrete objects likewise appear as nouns by virtue of the prototypical conceptualization. Although, needless to say, in some contexts they can be realized as different parts of speech, in such cases, they require a marked operation of conversion through the addition of suffixes or some other operation. By contrast, the basic color names can be a noun as such, to which can be attached the genitive marker *-no*, and they can also be an adjectival stem without any change in form, followed by the adjectival ending *-i*.

This uniqueness of Japanese color terms gives rise to the following question: what distinctions are present among the expressions in (1)? At first sight, these vary only on a superficial stylistic level, at best. However, a closer inspection reveals that different nouns may occur for each of the modified positions N, which can be understood through the assumption that the choice of each form of modification of a color word is affected by pragmatic considerations, as seen in (2).

- (2)
- a. Adjectival Modification is used iff the speaker intends to inform the hearer that the color in question is visually the most salient of all colors visible in the object N (typically by occupying the widest area); almost anything but **shingou* (“traffic light”) can occur as N.
 - b. Nominal Modification is used iff the speaker conceptualizes the object N as a category whose members are only contrasted in COLOR but are homogeneous in all other properties; typical examples include N = *kureyon* (“crayon”) and *bentu* (“Mercedes-Benz”), and N = **shingou*, **ringo* (“apple”), **ti* (“blood”), and **kudamono* (“fruit”) are unsuitable for this use.
 - c. Compound Noun is used iff the speaker conceptualizes the object N as a category whose members are contrasted in COLOR, and each of the colors marks a certain value for another property; typical examples include N = *shingou*, and *ringo*, and N = **kureyon*, **bentu*, **ti*, and **kudamono* are unsuitable.

(2a) produces a purely visual description of N. Therefore, no restriction is placed on the categorical structure of the modified noun. However, it should be noted that *shingou* never occurs in this construction. The social importance of a traffic light is of course found in its signal lights, but its physically largest part is the pole. (2a) focuses on the purely visual depiction of an object. Consequently, *aka-i shingou* tends to refer to the body, meaning “the traffic light whose body is red,” and it never means “the light that turned red.” In contrast to (2a), the other two uses of color words incidentally give categorical information on N. Notice that (2b,c) are in clear contrast, in that the former foregrounds only differences in color and relegates to the background all differences in all other properties, whereas the latter foregrounds both differences in color and in another particular property. Crayons and Mercedes-Benzes are described with (2b) formations, not (2c), because they indicate objects whose colors can be chosen without any accompanying difference in use, material, or other factors; they are typically conceptualized as a group of objects that are homogeneous except in color. Then traffic lights and apples, for instance, are suitably used with (2c), not (2b), because a difference in color marks another difference; green in the light represents go, while red indicates stop, and green in an apple may indicate unripeness, whereas red shows ripeness. It should be noted that neither blood nor fruit go well with either (2b) or (2c). Blood is nonrestrictively red, so there are generally no varieties in color semantically. Then, the category fruit has members that are irregularly differentiated in color, taste, shape, season, and so on, which is inconsistent with either of the categorical structures that (2b) and (2c) require.

Some previous studies addressed the dichotomy between color adjectives and color nouns (e.g., Sawada 1992; Fujimura 2003), but the complete picture of the pragmatic distinctions among these constructions has not yet been presented, largely because such earlier work tried to capture the differences in terms of general distinctions between adjectives and nouns from a lexical viewpoint and did not include the compound forms like (1c) within their scope.

Why do only color terms exhibit this particular array of distinctive behaviors? A plausible answer can be found in the examination of the semiotic and communicative function of the concept of COLOR. Of all properties occurring in an object, the most easily obtained and described features should be related to visual information, regardless of the conceptualizer’s distance from and knowledge of the object. Moreover, for communication, COLOR is suitable as a marker for other information about that object because it can be conceptualized separately from all other attributes. That is, COLOR may be relatively less conceptually dependent (in the sense of Langacker 1987). The linguistic system utilizes this communicative–functional advantage of COLOR and accords to color expressions constructional statuses that carry extra information regarding an individual object and its category.

3. Color metaphors and metonymies: what motivates them?

3.1 Constructions in color metaphors and metonymies

Color terms are often used figuratively to indicate emotions, morality, states and so on. Numerous works have investigated these nonliteral usages (e.g., Cacciari, et al. 2004; Sakamoto 2007). While the previous discussion of the cognitive grounds of these uses has focused on the chromatic relationships among color terms, colors, and psychological characteristics, the constructional aspects of figurative color expressions have not yet been adequately illustrated. It should not be neglected that each figurative interpretation generally occurs only in a particular form. For example, the Japanese *kuro* (“black”) bears the metaphorical meaning of “unfair,” or “antisocial,” when collocated with *kane* (“money”), *kankei* (“relationship”), or *uwasa* (“rumor”), for example, but these interpretations only appear as adjectival modification, as shown in (3a):

- (3) a. *kuro-i kane*
 b. **kuro-no kane*
 c. **kuro kane* (or **kuro gane* through sequential voicing, a.k.a. *rendaku*)

If figurative extensions of color words were grounded purely on physio-psychological mechanisms of the colors or color names, we could straightforwardly expect (3b,c) also to have similar metaphorical interpretations. In fact, however, they do not. To account for this fact, we must take the constructional perspective described in (2). In this case, out of all colors that are given a basic name, only *kuro* has a metaphorical meaning related to unfairness; *shiro* (“white”), *aka* (“red”), and *kiiro* (“yellow”) can never mean “fair,” or “right,” for example. There is no contrast in COLOR. On the other hand, both of the nominal modification and compound of color terms presuppose the contrast in COLOR as shown in (2). Therefore (3b,c) cannot be interpreted figuratively.

Another set of examples that supports the constructional explanation is the metonymical usage of *kuro* and *aka* to represent financial states in collocation with *ji* (“characters”). There, *kuro* means “surplus,” and *aka* stands for “deficit,” similar to the expressions *in the black* and *in the red* found in English. Interestingly, unlike the case of (3), those interpretations only appear in the compound forms *kuro ji* / *aka ji*. The adjectival modification **kuro-i ji* / **aka-i ji*, and the nominal modification **kuro-no ji* / **aka-no ji* never accept the figurative reading and are to be read only literally, that is, as “characters written in black or red.” The origin of these figurative uses may be found in translations originating in Western bookkeeping customs, but in any case, the important point here is that the expressions were not translated into and have not prevailed as adjectival or nominal modification forms, but they appear solely in noun compounds. In this case, the contrast of the two colors is mapped to the difference in financial states. Therefore each of the colors in question corresponds to a certain value for the other property, which matches the pragmatic condition of (2c). To sum up the discussion, the constructional features in (2) also appear in the figurative extension of color terms, which determines what metaphorical and metonymical interpretations are possible.

3.2 Construction with prefixed *ma-* as a trigger for figurative meanings of color terms

Moreover, some of the Japanese color terms are frequently accompanied by the prefix *-ma*, which is productively attached to various nouns or adjectives to emphasize the purity, precision, or perfection of a certain property including COLOR, SHAPE, LOCATION and TIME. For example, it can prefix *siro* (“white”) to make the adjectival noun *mas-siro*, which means “purely white.” In addition, it tends to convey the connotation that the speaker considers the degree of the property indicated to be surprising or unusual. Further, *ma-* constructions containing color terms can be used non-literally; for instance, when compared with *kuro-i kane* in (3a), *mak-kuro-na kane* (prefix *ma-* + “black” + adjectival ending *-na* + “money”) lays a special emphasis on the unfairness of the money.

Interestingly enough, the *ma-* construction productively prompts the figurative uses of color words more than the bare constructions shown in (1-3). In fact, it is worth noting that if a bare color adjective expression carries a figurative meaning, its prefixed counterpart almost inevitably bears the emphasized version of that meaning, with only a few idiomatic exceptions (e.g., *ao-i* can describe someone as “inexperienced,” but *mas-sao-na* never signifies “very inexperienced” or anything like it). Moreover, a large number of cases exist where a *ma-* expression alone takes on a figurative interpretation, and no other possible construction with color does, but not vice versa. For example, *mas-siro-na kimoti* (the prefix *ma-* + “white” + adjectival ending *-na* + “mind”) can mean “unbiased mind,” but neither **siro-i kimoti*, **siro-no kimoti*, nor **siro kimoti* bears such an interpretation; *mak-kuro-na kutu* means either literally “deep black shoes” or metonymically “dirty shoes,” whereas both *kuro-i kutu* and *kuro-no kutu* can only be interpreted only as literal “black shoes,” and **kuro kutu* is not usually an acceptable construction. In sum, *ma-* expressions function as a trigger to develop figurative uses, before the bare counterparts.

This triggering behavior may be induced by the pragmatic features of the prefix *-ma*, in combination with the semiotic functions of the concept of COLOR, as discussed in Section 2. This prefix connotes the abnormality of a certain property and, hence, aggressively shifts the focus of the discourse from a given color to an event or object that is causally or temporally adjacent to it. Moreover, as noted above, COLOR often functions as a symbol or index for another property. In any case, before anything else, the figurative extension discussed here also demonstrates the necessity of constructional and functional scenarios in relation to color metaphors and metonymies.

4. Conclusions

This presentation exhibits a case study to illustrate the manner in which figurative extension can be grounded on the grammar of construction, which is consistent with recent theoretical approaches to figurative language (see Dancygier & Sweetser 2014:127-161 for a general overview). At the same time, focusing on Japanese color terms, which show a unique morpho-syntax stemming from their potential flexibility in conceptualization, enabled further examination of how domain-specific constructions of color expressions behave, both in their literal and figurative usages. It should be confirmed that, although meanings of perception terms may seem to directly reflect the physio-psychological makeups of the speakers, even their semantics is greatly founded upon constructional and pragmatic functional bases. This discussion here will contribute to the investigation of the way in which perceptive information is re-organized by lexical and constructional systems to be realized as linguistic meaning in communication.

Reference

- Berlin, B., & Kay, P. (1969). *Basic color terms: their universality and evolution*. Berkeley: University of California Press.
- Dancygier, B., & Sweetser, E. (2014). *Figurative Language*. Cambridge: Cambridge University Press.
- Cacciari, et al. (2004). When color names are used metaphorically: The role of linguistic and chromatic information, *Metaphor and Symbol*, 19, 169-190.
- Fujimura, I. (2003). Shikisai meishi to shikisai keiyoushi no tairitsu: Shinbun to bungaku no kôpas kara wakaru koto, *A Study of Collocation based on Corpora toward Compiling a Dictionary for Learners of Japanese*, 25-48.
- Langacker, R. W. (1987). *Foundations of Cognitive Grammar, vol.1: Theoretical prerequisites*. Stanford: Stanford University Press.
- Sakamoto, M. (2007). Shikisai go metafâ he no ninchigengogaku teki kanshin ni motodzuku apurôchi no kentou. In T. Kusumi (Ed.), *Metafâ kenkyû no saizensen* (pp.307-326). Tokyo: Hitsuji shobo.
- Sawada, N. (1992). The indicatory function in nouns compared with restrictivity and descriptivity of adjectives: From an analysis of selectional factors in the basic colour words, *Gengo kenkyu* (Journal of the Linguistic Society of Japan), 102, 1-16.

Figurative meanings of sensory and emotional adjectives in Japanese:

Semantic patterns of [-i adjective+noun] constructions

Kei SAKAGUCHI (Graduate school of University of Tokyo)

1. Introduction

This presentation investigates the polysemy of SENSORY and EMOTION adjectives focusing on [Adjective + Noun (A+N)] modification in Japanese. By taking frame semantic approach, this study tries to identify what frames can be evoked by Japanese SENSORY and EMOTION adjectives including figurative (extended) meanings. Most of the analysis is based on the data from The Balanced Corpus of Contemporary Written Japanese (BCCWJ).

2. Framework

This study takes frame semantic approach (c.f. Fillmore 1982, Fillmore & Baker 2009 and others), hence it is essential to investigate what frames is evoked by adjectives. Some adjectives analyzed in this study are polysemous. In the frame semantic approach, the difference of the meanings comes from the difference of evoking frames and recorded as different Lexical Units (LU), with different definition (Ruppehofer et al. 2016: 9-10). Frame semantics and FrameNet basically do not describe the connection between literal (prototypical) meanings and figurative (extended) meaning, even Ruppehofer et al.(2016) list this as a subcategory of frame-to-frame relation. On this occasion, Sullivan (2013) suggested the formalized description for the link between literal and figurative meanings by adapting Conceptual Mapping Theory. (c.f. Lakoff & Johnson 1980, Lakoff 1993) For example, *bright* in the collocation *bright student* is not relevant to someone/something's brightness, but means "intelligence." This metaphorical meaning results from the mapping of a frame from SEEING domain to

KNOWING domain. As Sullivan (2013) demonstrated, frame semantic approach can be adapted to the descriptive studies of figurative expressions. For these reasons, this study uses frame semantic approach for describing the semantic patterns of [A+N] construction and polysemy of Japanese SENSORY and EMOTION adjectives.

2.1. Attributive use of adjectives

This section introduces some previous studies that analyzed the pattern of [A+N] modification in English. Bolinger (1967) and Quirk et al. (1972) classifies inherent adjective (e.g. *a firm handshake*) and coherent adjective (e.g. *a firm friendship*). In this pair, *firm* in the former example is understood with its prototypical meaning, and the latter is understood as a figurative meaning. Taylor (1992) made a classification between absolute reading (e.g. *old friend*: a friend who is advanced in years) and synthetic reading (e.g. *old friend*: someone who has been a friend for a long time), and proposes that polysemy of [A+N] modification derives from polysemy of noun. In the absolute reading of *old friend*, what is referred by *friend* is just a person. In the synthetic reading, *friend* refers to the relation between a participant of the friendship and *me* (a speaker). Sweetser (1999) analyzes complicated interpretations of [A+N] modification with domain adjectives by mental space theory.

2.2. Two types of [A + N] constructions

Sullivan (2013) classifies domain construction and predicating modifier construction, and pointed out the

difference of conceptual relation. For example, *mental exercise* is a domain construction. This metaphorical phrase cannot be paraphrased in [N is A] sentence. In the domain construction, adjective is conceptually autonomous (c.f. Langacker 2008) and directly evokes target domain of metaphorical mapping. According to Sullivan (2013: 82), domain adjectives/adverbs do not evoke their own frames, they just function as a domain evoker. Noun, on the other hand, is conceptually dependent and indirectly evokes source domain. Therefore, we understand that *mental exercise* is not a physical exercise but has a goal to improve mind or aspect of mind. This interpretation is based on our knowledge about literal meaning of *exercise*. In predicating modifier construction, adjective is conceptually dependent, and noun is conceptually autonomous. In this construction, source and target domains are evoked indirectly. However, it evokes frames of source domain, and structured knowledges are still useful to make inferences, when it is mapped to the target domain. For example, *bright student* evokes SEEING and KNOWING domains and each items can evoke their own frames. Hence, we interpret this collocation by using literal meanings of each items.

2.3. Semantics of Japanese adjectives

Previous studies of Japanese adjectives have focused on the classification between EMOTION adjectives and ATTRIBUTIVE (PROPERTY-related) adjectives. (c.f. Nishio 1972, Yakame 2008) These classifications are based on literal meanings, and figurative meanings have not been discussed enough. For instance, emotional adjectives in a figurative use can denote attribute/property/value of someone or something, and there are variety of figurative usages that cannot be explained by previous studies.

3. Range of polysemous meaning

The range of polysemous meaning of SENSORY

adjectives is wider than that of EMOTION adjectives as reported by. This inclination consists with the prevalence of change from concrete to abstract (Sweetser, 1990: 27). Most SENSORY adjectives denote experiencer's sensation toward a particular stimulus through physical experiences. Emotions can also be triggered by stimuli but those stimuli should not always be embodied. As we have known, words, messages and the other intangible things may evoke some particular emotions. In that respect, EMOTION adjectives denotes more abstract concept. For these reasons, we can say that the former is much more concrete while the latter is abstract.

3.1. Case study: [*tanoshii* + N] and [*oishii* + N]

All of 736 types of [*tanoshii* (happy) + N] are emotion-related, even though there is a difference of semantic roles of noun. In contrast, 37 of 672 types of [*oishii* (delicious) + N] have figurative meanings, and they are not relevant to taste, nor the evaluation that based on foods' taste. See the examples below.

- (1) *oishii ryouri* (delicious meal)
 'delicious meal'
 frame: Chemical_sense_description
 semantic type: Positive_judgement
- (2) *oishii jouhou* (delicious information)
 'desirable/profitable information'
 **oishi-souna jouhou*
 frame: Desirability
 semantic type: Positive_judgement
- (3) *oishii joukyou* (delicious situation)
 'lucky situation'
 **oishi-souna joukyou* (delicious-seem situation)
 frame: Luck
 semantic type: Positive_judgement

As shown in (1), *oishii* in the literal usage denotes positive evaluation for food or drink based on taste perception. Examples (2) and (3) are predicating modifier

constructions. In (2), *oishii jouhou* means information about something profitable or desirable. This usage is irrelevant to taste which is a subcategory of sensory perception, but still holds the positive evaluation. This might be the side effect of the ability to evoke and use frame of literal meaning. In (3), *oishii* metaphorically means *lucky*. In figurative usages, *oishii* cannot occur with manner auxiliary verb *-souda* (seem). For instance, if you say *oishisouna jouhou*, it means “information about delicious foods, drinks or the place where delicious things are served.” When *oishi* is used in the literal meaning, *oishii* evokes `Chemical_sense_description` frame of `Positive_judgement` as a semantic type. It also evokes `FOOD` domain as a source domain for conceptual mapping. In the figurative usages, *oishii* evokes `Desirability` frame, and `Luck` frame, and, as an effect of mapping, their semantic type is determined as `Positive_judgement`. Based on FrameNet, we can see the frame to frame relationship, such as inheritance, use and sub-frame, but it does not show the metaphorical mapping relation from source domain to target domain. Therefore I made a network model of frames evoked by *oishii* adding the link of metaphorical extension. In this case, those frames have the same root frame, `Gradable_attribute`, then it function as a schematic frame, which enables semantic extension as shown in figure 1. This abstract cannot get into the depth of this metaphorical relation among frames, but once we take Sullivan (2013)’s approach, we can see how literal meaning supports metaphorical meanings and how the structured lexical knowledge is mapped from source domain to target domain.

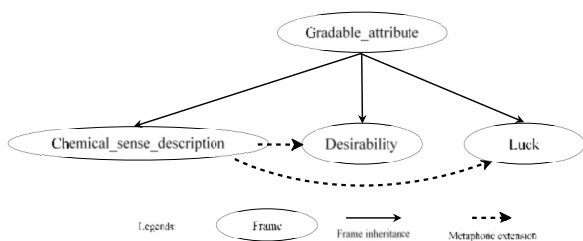


Figure 1: Network model of Frames evoked by *oishii*

4. Constructional meaning of [-i adjective + N]

Figurative usages of EMOTION adjectives are not found in the data, but some cases of EMOTION adjectives, in a particular construction, that denote someone’s QUALITY are found. This section will show some unique cases of EMOTION adjectives when they occur with a noun representing a person. For example, *tanoshii otoko* (happy man) means ‘the man who makes someone happy/joyful’, and this composition does not mean ‘the man who looks happy/joyful.’ This is because, when second or third person occurs as an EXPERIENCER with this kind of adjectives, [-i adjectives (STEM) + *souna* (attributive form of manner auxiliary verb *-souda* (seem))] is used. Therefore, *tanoshisouna otoko* means ‘the man who looks happy/joyful.’ This does not happen to *-na* adjectives (or adjectival noun). See a comparison between *tanoshii* and *shiawasena* (happy) below.

- (4) (a) *shiawasena otoko* (happy man)
‘the man who is happy’
- (b) *shiawase-souna otoko* (happy seem man)
‘the man who seems happy’
- (5) (a) *tanoshi otoko*(happy/joyful man)
‘a man who makes someone happy/joyful’
- (b) *tanoshi-souna otoko*(happy(STEM)-seem man)
‘the man who seems happy/joyful’

I would try to identify the semantic role of nouns based on the definition of `Emotions_by_stimulus` frame. In (4a), the semantic role of *otoko* (man) is EXPERIENCER or EMPATHY_TARGET of a particular emotion, and it represents a particular person. This is same in (4b) and (5b). In (5a), on the contrary, the semantic role of *otoko* may be STIMULUS, or namely EVOKER (which is not listed in the frame definition) and someone who is affected by will be an EXPERIENCER, which is not realized in a sentence. Regarding conceptual relation, the noun of (5a)

is conceptually dependent and it is impossible to represent a particular person, so to speak this is an unsaturated noun. This noun works as an human propensity marker, in other words its function is same as a domain determiner as seen in Sullivan (2013)'s examples of domain constructions. Also, an adjective in (5a) is not a predicating adjective, as *tanoshii otoko* cannot be paraphrased (e.g. **otoko ha tanoshii*). In this construction, both noun and adjective are conceptually dependent. Thereby, it can be said that this construction cannot simply be classified in a predicating adjective construction nor a domain adjective construction. Here I call this [A + *hito*] construction. This construction can denote someone's quality as shown in (6). Then, I argue that [EMOTION adjectives + *hito*] can work as a predicate and requires an argument. Similar expressions from BCCWJ are shown in (7), and some examples with SENSORY adjectives are shown in (8). All the examples in (8) are figurative usages.

- (6) *Kare ha tanoshii-hito da.*
 he TOP happy-person COP
 'He is a person who makes someone happy.'
- (7) EMOTION adjectives and [A + *hito*] construction
kanashii hito (sad person)
 'a person who is miserable (not feeling sad)'
- (8) SENSORY adjectives in [A + *hito*] construction
itai hito (painful person)
 'a person who is cringy'
atsui hito (hot person)
 'a person who is passionate'
tsumetai hito (cold person)
 'a person who is cold/unkind'
akarui hito (bright person)
 'a person who is out-going'

5. Conclusion

This presentation dealt with SENSORY and EMOTION adjectives in [A+N] construction in Japanese. This presentation shows the variety of frames that is evoked by

SENSORY adjectives, and their figurative meanings by showing the case study of [*tanoshii* + N] and [*oishii* + N]. Through analysis, this study shows that SENSORY adjectives have much wider polysemous meaning than EMOTION adjectives. Also, I demonstrated the constructional meaning of [EMOTION ADJ + N (representing a person)], and its function as a predicate.

References

- Bolinger, Dwight. (1967) Adjectives in English: Attribution and Predication. *Lingua*, 18: 1–34.
- Fillmore, C. J. (1982) Frame semantics. *Linguistics in the morning calm*, 111-137.
- Fillmore, C. J. & Baker, C. (2009) A frames approach to semantic analysis. In Heine, Bernd and Narrog, H. (Eds.) *The Oxford Handbook of Linguistic Analysis*, 313-339. Oxford: Oxford University Press.
- Langacker, R. W. (2008) *Cognitive grammar: A basic introduction*. New York: Oxford University Press.
- Lakoff, G. (1993). Contemporary theory of metaphor. In A. Orthony (Ed.), *Metaphor and Thought*, 2nd, 202–251. New York: Cambridge University Press.
- Lakoff, G. and M. Johnson (1980) *Metaphors We Live By*. University of Chicago Press.
- Nishio, T. (1972) *A descriptive study of the meaning and uses of Japanese adjectives*. Tokyo: Syuei Syuppan
 (西尾寅弥 (1972) 『形容詞の意味・用法の記述的研究: 国立国語研究所報告:44』 東京: 秀英出版.)
- Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J. (1985) *A Comprehensive Grammar of the English Language*, London: Longman.
- Ruppenhofer, J., M. Ellsworth, M. R. L. Petruck, C. R. Johnson, C. F. Baker & J. Scheffczyk (2016). *FrameNet II: Extended theory and practice*. Berkeley, California: International Computer Science Institute.
- Sullivan, K. (2013) *Frames and constructions in metaphoric language*. Amsterdam: John Benjamins Publishing Company.
- Sweetser, E. (1990) *From etymology to pragmatics*. New York: Cambridge University Press
- Sweetser, E. (1999) Compositionality and blending: semantic composition in a cognitively realistic framework. In Theo, J. and Redeker, G (eds.), *Cognitive Linguistics: Foundations, Scope, and Methodology*, 129–162.
- Yakame, H. (2008) *A descriptive study of contemporary Japanese adjectives: From a typological view*. Tokyo: Meiji Shoin
 (八亀裕美 (2008) 『日本語形容詞の記述的研究—類型論的視点から』 東京: ひつじ書房.)

Corpus

- Balanced Corpus of Contemporary Written Japanese (BCCWJ). National Institute for Japanese Language and Linguistics (NINJAL). https://pj.ninjal.ac.jp/corpus_center/bccwj/ [Accessed May 28th, 2019]
- FrameNet. International Computer Science Institute (ICSI). <https://framenet.icsi.berkeley.edu/fndrupal/>