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APPEARANCES CAN DECEIVE YOU: A COGNITIVE ANALYSIS OF THE "SUBJECT *BE* ADJECTIVE *TO LOOK AT*" CONSTRUCTION*

1 INTRODUCTION

This brief paper is concerned with sentences such as (1):

(1) Mary is pretty to look at.

In previous studies, this exact sentence (or its similar variants) has been cited as a typical example of the *pretty* construction (Asakawa and Miyakoshi 1996; Lasnik and Fiengo 1974; Kono 1984; Schachter 1981, etc.).[1] The label "*pretty* construction", by definition, refers to the set of sentences in which the main predicate (*pretty*) is followed by a retrospective infinitive (*to look at*), but which does not have a pleonastic counterpart (**It is pretty to look at Mary*).[2] The latter feature distinguishes the *pretty* construction from the *tough* construction, which has a pleonastic counterpart. These two characteristics of the *pretty* construction have been attributed to the meaning of the adjective as the main predicate. It has thus been common to list a set of adjectives that can be attested in the *pretty* construction (Ando 2005; Huddleston and Pullum 2002; Yasui et. al 1976; etc.).

The present study, however, will be conducted from an entirely different perspective. It builds upon the theoretical assumptions in a school of construction grammar (as advanced in Croft 2001; Goldberg 1995, 2006; Langacker 1988, 2000; Tomasello 2003, inter alia), whereby "constructions" (or "constructional schemas") are treated as basic linguistic units. One notable assumption in this paradigm is: for a linguistic unit to be a construction (i.e. a unit actually utilized in the knowledge of language users), there is no a priori restriction on the specificity or complexity of it.

* This is a slightly revised version of Minami (2011). I am grateful to Peter Carter for his patient and encouraging help as an informant as well as a proofreader. All remaining errors and inadequacies are, of course, mine.

[1] Bolinger (1961: 372) also cites an example of this sort (*She's homely to look at*), although the label "*pretty* construction" is not mentioned.

[2] About the "retrospective infinitive", see Jespersen (1940: 221).

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Instead, it is high degree of entrenchment, high productivity, and semantic idiosyncrasy that contribute to the status of a unit as a construction. I will henceforth call this theory *Usage-based Construction Grammar (UCG)*, combining Langacker's (1988, 2000) usage-based model of language with construction grammar.

This study diverges from the previous studies in three ways. Firstly, it adopts a different view on what counts as a constructional schema instantiated by examples as (1). From the viewpoint of UCG, either of the two choices has been taken in the literature: (i) a fairly abstract schema as represented in (2)a where no item is specified; or (ii) a partially specified schema as in (2)b, where the "Adj" slot is filled with a specific lexical item (Ando 2005; Asakawa and Miyakoshi 1996; Quirk et al. 1985; Schachter 1981, etc.). In contrast, it is assumed in this study that (3), where the "verb" in the infinitival complement rather than the "adjective" is specified, is better qualified as a construction than (2)b (and (2)a), since the former is more productive than the latter (Minami 2009: Chapter 6). The constructional schema (3) will be henceforth called the SBAL for convenience.

(2) a. [Subj$_i$ be Adj to inf ∅$_i$][3]
b. [Subj$_i$ be *pretty* to inf ∅$_i$]
(3) [**S**ubj$_i$ **b**e **A**dj to ***l****ook at*∅$_i$] (=SBAL)

Secondly, to make clear the properties peculiar to the SBAL, it will be compared with another construction exemplified by (4). This sentence is normally considered an instance of the constructional schema given in (5), which is sometimes dubbed the Copulative-Perception-Verb (=CPV) Construction (Taniguchi 1997).

(4) Mary looks pretty.
(5) [Subj Verb (=a copulative perception verb) Adj]

Again, just as has been shown above with the *pretty* construction, the constructional schema assumed in the present study is (6), whereby the "Verb" slot is filled with *look*. This schema will be called the SLA from now onward.

(6) [**S**ubj ***l****ook* **A**dj] (=SLA)

It is thus assumed in the present study that the SBAL and the SLA constitute two grammatical constructions having the perception verb *look* in common. Despite some semantic overlaps, they are different in many respects. This is predictable from the well-known hypothesis that "a difference in syntactic form always spells a difference in meaning" (Bolinger 1968: 127). However, the SBAL and the SLA are *similar enough to be worth comparing*, as we shall see in the following sections. Moreover,

[3] Abbreviations and signs for the schematic representations of constructions: Subj = Subject, Adj = Adjective, inf = infinitive, ∅ = formal gap, i = index indicating identical reference.

the comparison reveals how several aspects of our views on visual information motivate the two constructions.

Finally, the present study takes a wider view on the "constructional meaning" than previous studies. Going beyond the sentential-level meaning (or "propositional meaning") it will investigate contextual patterns (or usage patterns) of a construction.[4]

This paper is organized as follows: Section 2 presents a cognitive and functional comparison of the SBAL with the SLA. In section 3, our cognitive models for visual information will be proposed, and it will then be shown that the observations in section 2 can be accounted for with the proposed models. Section 4 summarizes this paper, referring to the implications the present study has for future research on perception verbs and the *pretty* construction.

2 NATURE OF THE SBAL IN COMPARISON WITH THE SLA

Despite certain semantic/conceptual overlaps between the SBAL and the SLA, several noteworthy differences can be found. In this section, we will first compare the two constructions in terms of what each construction itself means (2.1). We will then go beyond the sentence-level to illustrate that the SBAL tends to be used in specific patterns of context where the SLA is not used as frequently (2.2).

2.1 Sentential-level difference

A notable semantic difference between the SBAL and the SLA emerges when the same adjective receives different interpretations in these constructions. The pair in (7) constitutes a good example:

(7) a. The book looks easy. (instance of SLA)
b. ? The book is easy to look at.[5] (instance of SBAL)

In (7)a, the adjective *easy* mainly designates the property of "low difficulty" to be experienced in the process of reading the book. The verb *look* indicates that the property described is inferred by the speaker. *Easy* in (7)b, on the other hand, cannot be interpreted this way. Instead it means a positive quality of the book's appearance. A question mark is attached to this sentence since it is extremely difficult to envisage a context where this sentence would be actually used. In fact, in (7)b, with a particular "book" in the subject position, the "low difficulty" sense is excluded due to the

[4] An extensive discussion on the importance of having a global view on constructional meaning can be found in Yamanashi (2009: Chapter 6).

[5] In this paper, "?" will be used to indicate semantic anomaly, and "#" will be attached when the sequence in question is pragmatically infelicitous.

constructional meaning of the SBAL. The SBAL is used to describe properties perceivable via visual perception only. The difficulty entailed in the process of book-reading cannot be directly accessed through visual perception; it requires an inference on the part of the speaker. (7)b can thus never be interpreted in the same manner as (7)a.

From the observation above it follows that the adjective of the SBAL must refer to a property directly accessible to visual perception, while that of the SLA is free from such a restriction mainly because the construction has developed an inferential meaning (see Taniguchi 1997; Dixon 2005: 204-5; Gisborne 2010: Chapter 7, etc.). At the sentential level, the difference between the SLA and the SBAL is summarized as (8):[6]

(8) a. SLA = evaluative description of a property based on visual perception and/or the speaker's inference
b. SLA = evaluative description of a property based *only* on visual perception

The primary difference of the SBAL from the SLA, therefore, is that the former lacks the speaker's inference part of the property-description.

The next section will present a more "pragmatic" comparison of the SBAL and the SLA and show that the observed differences are due to the semantic difference delineated in (8).

2.2 Differences beyond the sentential level

It needs to be noted first that the SBAL conveys an implication that the SLA lacks. The SBAL, unlike the SLA, strongly implicates that the entity designated by the subject has other properties than the one described by the adjective and that such properties are not to be perceived through visual perception but other means. Let us take an example to see this:

(9) a. That looks good.
["As a purchase, the item has potential"]
b. That's good to look at.
["Despite its appearance, as a purchase the item has drawbacks"]

A speaker employing (9)a would appear to be suggesting that the item suits the needs of either the speaker or listener in some way. In contrast, use of (9)b implies that either the speaker is not considering making the purchase, or that the hearer should

[6] Gisborne (2010: Chapter 7) extensively argues that the SLA (a SOUND-class verb, in his terminology) is associated with evidentiality and epistemic modality.

exercise caution in doing so. It is likely in the case of (9)b that the speaker will introduce reasons for the item's limited desirability. This suggests that the SBAL is more context-dependent than the SLA. In what follows it will be shown that this is the case.

2.2.1 Usage patterns peculiar to the SBAL The implication of the SBAL manifests itself in linguistic expressions. Through my survey of the British National Corpus (BNC), two characteristic patterns were found. Some examples of the first pattern are given in (10):

(10) a. Terracotta tiles, brick, flagstone, slate, terrazzo and non-slip ceramic *are all durable, impressive, good to look at and easy to clean*. (BNC)[7]
b. The buildings and the greens *were well laid-out, modern in style and agreeable to look at*. (BNC)
c. As a Member of The Folio Society, you can build up a collection of superb books that *are marvellous to read, beautiful to look at, and available only to Members*. (BNC)

In these, the subject is followed by multiple predicates, among which is the SBAL predicate (i.e. "Adj to *look at*"). More than one predicate is "aligned", so to say, to give a detailed evaluation of the subject entity. In (10)b, for instance, the three predicates (*well laid-out*, *modern in style*, and *agreeable to look at*) all contribute to forming a positive evaluation of the subject entity. Henceforth, this pattern will be called the "alignment pattern".

The second pattern is exemplified by (11):

(11) a. And though the cottage was pretty to look at, it was rather poky inside with small, dark rooms and low ceilings. (BNC)
b. *It may be plain to look at*, *but* the service is great, and the prices reasonable. (BNC)
c. She had wanted to go on the stage; acting had always been her forte, and *although she might be insignificant to look at, she had a beautiful voice and perfect diction*. (BNC)

Again, a particular entity is described with more than one predicate, one of which is the SBAL predicate. Unlike the first pattern we just saw above, however, the property denoted by the SBAL predicate is contrasted with others in terms of evaluative judgment about the subject entity. In (11)c, for example, the SBAL predicate (*insignificant to look at*) is connected with a negative evaluation of the subject entity (= "she"), whereas the others (*have a beautiful voice* and *have perfect diction*) are associated with a positive evaluation of it. Henceforth this pattern will be termed the

[7] Henceforth, the italics given to the data from BNC are added by the author.

"contrasting pattern".

It is clear that the two patterns are related to each other. What is shared is the understanding that the described entity has multiple properties and the property denoted by the "Adj *to look at*" part is counted as just one of them. It is thus natural that there are examples like (12), which are hard to categorize sharply into either of the two patterns. We will turn back to examples of this sort in 3.2.2.

(12) Polly watched him. Tall, broad-shouldered, with lean hips and muscular legs, *he was magnificent to look at*. He was also formidable, demanding, difficult --; and smouldering with anger, but she still found it impossible to tear her gaze away. (BNC)

2.2.2 Further comparison One might argue against the claim that the contrasting pattern is peculiar to the SBAL by pointing out the fact that the SLA, at least in some cases, can also be used in similar contexts, as in (13):

(13) a. The book looked interesting, but it wasn't.
b. "A witty limerick is very hard to write," she added. "*They look easy but they most certainly are not*." (BNC)
c. *An NPV result of £100,000 may look attractive*. If the investment involved is £100 million, *however, it is not so good*. (BNC)

None of the examples in (13), however, falls into the contrasting pattern. In these examples, the property described by the SLA adjective is not contrasted with other properties attributed to the subject entity. Rather, it is different "judgments" about a particular property of the subject entity that are contrasted. In (13)a, for example, two different modes of judgment about the "interestingness" of the book are contrasted; the first based on the speaker's inference at some point and the second based on more solid evidence (i.e. the reality). As we have seen in 2.1, the SLA is associated with the speaker's inference on a particular property pertaining to the subject entity. Since it is an inference as shown in (14), its content can be either supported or denied by the perception of the reality (see Gisborne 2010: Chapter 7).

(14) a. He looks vicious, and he is.
b. He looks vicious, but he isn't/he's very gentle.

Instances like (14), which stem from this feature of the SLA, need to be distinguished from the contrasting pattern as delineated in 2.2.1. Firstly, the SBAL does not exhibit this feature:

(15) a. # The book was interesting to look at, and it was.
b. # The book was interesting to look at, but it wasn't.

Sentences in (15) do not make good sense: (15)a results in redundancy since the latter clause simply repeats the predicate in the preceding SBAL sentence; in (15)b, the clause following *but* does not deny the speaker's judgment about the interestingness of the book in question, but it cancels the whole predicate (*interesting to look at*), resulting in a contradiction. In point of fact, unlike *look* in the SLA, *to look at* in the SBAL does not have an inferential meaning, but it restricts the source of information to visual perception. Essentially, the SBAL is used to state that the property described by the adjective is perceived strictly through visual perception and not by any other means. It is this exclusive nature that makes it easy for the SBAL to be used in the property-contrasting pattern. Hence, the SBAL can make sense in the *but*-format as in (15)b if the latter clause indicates the existence of other properties of the subject entity that are not directly accessible to visual perception, as shown in (16).

(16) The book was interesting to look at, but its content was horrible.

It is worth noting here that there are some cases where the observed distinction apparently disappears, for example, when the meaning of the adjective is visually-oriented, the observed difference between the SLA and the SBAL is reduced.

(17) a. # Mary looks pretty, but she isn't.
b. # Mary looks pretty, but she isn't.

The adjective *pretty*, especially when it accompanies a human subject, is essentially related to visual perception; it exclusively modifies the appearance of the subject entity. In such a case, the meaning of the SLA is closest to that of the SBAL.[8] Still, as discussed above, the SBAL by itself implies that the subject entity has other properties than the one it describes, which are to be perceived via other means than visual perception. The SLA does not have this implication, even if the meaning of its adjective is strictly visual in nature.[9]

On the other hand, when the semantic content of the adjective is less specific, it appears that both of the two constructions equally join the property-contrasting pattern.

(18) a. The cake looks nice, but it's revolting.
(Gisborne and Holmes 2007: 5)
b. The cake is nice to look at, but it's revolting.

[8] Gisborne (2010) names examples like (17) "attributionary constructions" to distinguish it from other, inference-based cases. In the present study, however, this is not a crucial distinction, as shall be argued later.

[9] Peter Carter (personal communication) points out that one can let a SLA sentence have this kind of implication by putting a stress on the verb look (e.g. *Mary LOOKS pretty*.). This fact supports my position that the SLA as it is does not have the implication, since the SBAL does not require such a device to embrace this implication.

However, a subtle but significant difference can be observed between (18)a and (18)b. In the former, the SLA can indicate the speaker's inference about the "niceness as a cake" (including its taste, etc.) as well as the cake's nice appearance. In the latter, by contrast, the meaning of the SBAL is restricted to the appearance of the cake. In this respect, (18)a does not constitute a good example of the property-contrasting pattern while (18)b does.

3 COGNITIVE DESCRIPTIONS OF THE SBAL AND THE SLA

Thus far, we have observed how the two constructions under discussion have different semantic and pragmatic functions. In this section, we will seek a cognitive account of the observed phenomena. In 3.1., I will propose that we have three Idealized Cognitive Models (=ICMs) (Lakoff 1987: Chapter 4) for the concept of visual information, which constitute a cluster model. 3.2. will attempt to delineate how the proposed model motivates the SLA and the SBAL, looking at further attested pieces of evidence from BNC.

3.1 ICMs for visual information

There is an ambivalence toward visual perception as a source of information. On the one hand, we tend to rely very much on it, since it usually gives us a larger amount of information than other sources. In this respect, visual perception enjoys a privileged status over the other types of perception. It is also the case, on the other hand, that the information gained through visual perception is mostly partial and incomplete in nature. This is why some other sources of information besides visual perception are often required to get access to the essential property of things in question. From this I assume that these attitudes constitute two distinct cognitive models we have for information through visual perception (simply "visual information", henceforth). I will call them the Precedence/Reliability model and the Partiality model, respectively. Their brief descriptions are given in (19).

(19) a. visual information is the most accessible and the most reliable source of information [Precedence/Reliability model]
b. visual information is part of the whole source of information available [Partiality model]

These models are ICMs in that each model is abstracted away from certain aspects of reality in which they do not hold true. Under the Precedence/Reliability model (the PR model, hereafter), the cases where the visual information is not available (in the darkness, for example) are precluded. The Partiality model, by contrast, excludes the

situations where only visual information matters or is available after all. Thus, the two models are complementary to each other; both are based upon our actual knowledge about visual information, but they differ in which part of it is highlighted. The PR model highlights the clear advantage of visual information, back-grounding the fact that there are a lot of properties that cannot be accessed through visual perception. By contrast, the Partiality model highlights the fact that things have a set of properties, only part of which can be accessed via visual perception, back-grounding its precedence over the other sources of information. In addition to the two above, there is another, crucial model as described in (20):

(20) visual information is deceptive [Deception]

Considering the proverb "appearances can be deceptive", few would dispute that this model is deep-rooted in our understanding of visual information. This model should be treated separately from the other two in that it is contingent upon them. The content of the Deception model varies depending on which of the two other models it is connected with. When it is related to the PR model, visual information is deceptive in the way it does not provide a correct understanding of a particular aspect of the entity in question. When it is related to the Partiality model, visual information deceives in the way it does not capture the real value of the entity in question. Either way, the Deception model is also idealized since in reality there are cases where visual information does not deceive because it provides correct, necessary, and sufficient information about the targeted entity. The relationships between the three models are diagrammed in Figure 1. The PR and the Partiality models are in a complementary relation, and the arrows connecting the two models with the Deception model stand for dependency relations; the Deception model depends upon the other two.

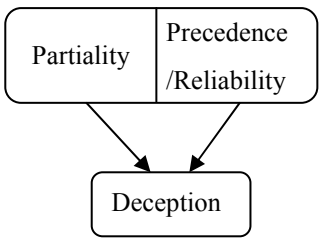

Figure 1.

3.2 Cognitive account

To account for the associations between the two constructions and the ICMs, I propose the following:

(21) a. the SLA = the PR model (+ the Deception model)
b. the SBAL = the Partiality model (+ the Deception model)

In what follows, I will argue for the validity of (21)a and (21)b.

3.2.1 The SLA As stated in section 2, the essential function of this construction is to give an inference by the speaker about a particular property pertaining to the subject entity. Crucially, the degree of certainty with which the expressed inference is given varies to some extent. The variation is factored out by the *but*-format we have utilized in 2.2.2. Compare (22) and (23):

(22) a. # Mary looks pretty, but she isn't. (=(17)a)
b. # The car looks blue, but it isn't.
(23) a. The book looked interesting, but it wasn't.
b. The sea looks blue, but it isn't.

The content of inference described in the SLA instances in (22) cannot be denied, since they serve to describe the reality. In this sense, they are *trivially* inferential. The instances in (23), on other hand, the inferred contents can be cancelled as one realizes that they mismatch the reality. Thus, these are genuinely inferential expressions. In either case, however, what is important to note is that the inferred content displayed by any SLA instance *is highly expected to be true*, since the PR model induces such a high expectation about visual information. The expectation is met without failure when the property concerned is strictly vision-related, as in (22), but otherwise it can fail to be fulfilled, as in (23). The existence of such cases in our experience helps to form the Deception model in our mind.

The argument in the last paragraph is apparently the exact opposite of the one found in Gisborne (2010: 260), in which the *unreliability* of sensory data is pointed out and it is contended that such unreliability gives rise to the judging element in the senses of copulative perception verbs (including the verb *look* in the SLA, in the present term). Along the line of this argument, one could not capture the fact (noted by Gisborne himself) that the "judging element" (inferential meaning, in the present term) is available with *look* and *sound* but not with *feel*, *smell*, and *taste*. The problem is two-fold. Firstly, just referring to the unreliability of sensory data in general does not suffice. A discrimination between the five senses by the degree of (un)reliability (or precedence) as a source of information is necessary. Secondly, in connection with the first point, Gisborne's argument fails to capture the fact that high reliability is conceptually correlated with the possibility of deception; the more something is relied upon, the greater the deception when expectations are violated.

3.2.2 The SBAL In the conceptualization associated with the SBAL, visual information is not treated as the most reliable source for inference. Rather, it is assumed that there are many other pieces of information available that vision cannot get access to. Hence, the Partiality model, not the PR model, is relevant here. As we

have already seen in 2.2.2, the content conveyed by the SBAL predicate cannot be denied (=(24)a). Unlike its SLA counterpart as in (23)a, however, the SBAL sentence in (24)a does not mean that the content of the book is interesting. It conveys that the appearance of the book is interesting, with no inference about the property of interestingness per se involved.

(24) a. # The book was interesting to look at, but it wasn't. (=(15)b)
b. The book was interesting to look at, but its content was horrible. (=(16))

But the SBAL involves inference in a different manner. It is an inference regarding the evaluation of the entity targeted (*evaluative inference*, henceforth). Thus, one crucial function of the SBAL is to state an evaluation of the subject entity strictly through visual information. Since this evaluation is partially adequate in nature, it is possible that approaching the entity including other sources of information than vision results in a totally different evaluation from the one based solely on visual information. (24)b exemplifies such a situation; the book is evaluated positively by its appearance, but this evaluation shifts in the totally opposite direction once one reads it. It is where such an evaluative gap obtains that the Deception model comes into play. Hence, the SBAL is primarily associated with the Partiality model, and involves the Deception model in a different manner from the SLA.

We have already seen some supporting examples for the present claim in 2.2.1. Clearly, the property-alignment pattern is a form of manifestation of the Partiality model, while the property-contrasting pattern is that of the Partiality model in combination with the Deception model. It should be noted, however, that these two patterns do not exhaust the possible linguistic realization of the two models. There are cases where the two models interact with each other in a more complex fashion, as observed in the examples below:

(25) He was so good to look at. But his looks were only a part of it; it was the man himself who drew her like a magnet, his mind, his character, his spirit, whatever made him him. (BNC)
(26) They were quite convinced that if Jeopardy had not been quite so stunning to look at, most people would not like him at all because he was arrogant and cold. (BNC)
(27) Mary was spectacular to look at and her own knowledge that she was made her capricious and difficult, expecting the best of everything. (BNC)

Example (25) constitutes a fairly straight manifestation of the Partiality model; the involvement of the Partiality model is explicitly mentioned just after the SBAL (*But his looks were only part of it*), and then the other positive elements about the man, which cannot be directly accessible to vision, are enumerated. The comprehension of (26), quite in conformity of the Partiality model, requires a mode of understanding

that one's looks and their other properties (such as character) are separated and independent of each other. Interestingly, the Deception model is also concerned with (26). What is implied by this sentence is that in reality Jeopardy is not disliked very much thanks to his stunning looks. Similarly, (27) is built upon the understanding that one's looks and other properties are separated and that one's looks can be deceptive in that personal appearances sometimes dominate the evaluative inference about the entity, concealing the other properties.

4 Concluding Remarks

In this paper, from a UCG perspective, I have first presented a comparison of the SBAL with the SLA, revealing a number of differences. Then, by organizing ICMs for visual information in the light of actual experiences, I have shown that the observed differences have particular cognitive foundations. This study has at least two implications for future research on perception verbs in general. First, it has opened the possibility to count the *pretty* construction as one of the syntactic forms where perception verbs play a central role. Second, for the purpose of fully describing the meaning of a construction, especially one of property predication, going beyond the sentential level and investigating contextual patterns in which the construction is actually used is more important than the previous studies have assumed.

It goes without saying that *look at* is not the only perception verb attested in the *pretty* construction. A preliminary search on BNC has revealed that visual verbs other than *look at* such as *watch*, *see*, and *behold* and auditory verbs such as *listen to* and *hear* are attested in this construction, whereas verbs of the other sensory domains are hardly used. Investigating those attested perception verbs and explaining the gap between the different sensory domains will be left for future research.

References

Ando, Sadao (2005) *Gendaieibunpokogi* (Lectures on Modern English Grammar), Kaitakusha, Tokyo.

Asakawa, Teruo and Koichi Miyakoshi (1996) "A Dynamic Approach to Tough Constructions in English and Japanese," *Tough Constructions in English and Japanese: Approaches from Current Linguistic Theories*, ed. by Akira Ikeya, 113–149, Kurosio Publishers, Tokyo.

Bolinger, Dwight (1961) "Syntactic Blends and Other Matters," *Language* 37, 366–381.

Bolinger, Dwight (1968) "Entailment and the Meaning of Structures," *Glossa* 2, 119–127.

Croft, William (2001) *Radical Construction Grammar: Syntactic Theory in Typological Perspective*, Oxford University Press, Oxford.

Dixon, R. M. W. (2005) *A Semantic Approach to English Grammar*, Oxford University Press, Oxford.
Gisborne, Nikolas (2010) *The Event Structure of Perception Verbs*, Oxford University Press, Oxford.
Gisborne, Nikolas and Jasper Holmes (2007) "A History of English Evidential Verbs of Appearance," *English Language and Linguistics* 11, 1–29.
Goldberg, Adele E. (1995) *Constructions: A Construction Grammar Approach to Argument Structure,* University of Chicago Press, Chicago.
Goldberg, Adele E. (2006) *Constructions at Work: The Nature of Generalization in Language*, Oxford University Press, Oxford.
Huddleston, Rodney and Geoffrey Pullum (2002) *The Cambridge Grammar of the English Language*, Cambridge University Press, Cambridge.
Jespersen, Otto (1940) *A Modern English Grammar*, Part V, Allen & Unwin, London.
Kono, Tsuguyo (1984) "Eigo no *Pretty* Kobun nitsuite (On the *Pretty* Construction in English), *Gengo*, 13/4, 108–116.
Lakoff, George (1987) *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind, University of Chicago Press*, Chicago.
Langacker, Ronald W. (1988) "A Usage-Based Model," *Topics in Cognitive Linguistics*, ed. by Brygida Rudzka-Ostyn 127–161, John Benjamins, Amsterdam.
Langacker, Ronald W. (2000) "A Dynamic Usage-Based Model," *Usage-Based Models of Language*, ed. by Michael Barlow and Suzanne Kemmer, 1–63, CSLI Publications, Stanford.
Lasnik, Howard and Robert Fiengo (1974) "Complement Object Deletion," *Linguistic Inquiry* 5, 535–571.
Minami, Yusuke (2009) *A Cognitive Exploration of English* Tough *Constructions and Related Phenomena*, Doctoral dissertation, Osaka University.
Minami, Yusuke (2011) "*Mary is pretty to look at* vs. *Mary looks pretty*: Property Cognition through Visual Information," *Papers from the 11th National Conference of the Japanese Cognitive Linguistics Association*, 92–102.
Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London.
Schachter, Paul (1981) "Lovely To Look At," *Linguistic Analysis* 8, 431–448.
Taniguchi, Kazumi (1997) "On the Semantics and Development of Copulative Perception Verbs in English: A Cognitive Perspective," *English Linguistics* 14, 270–299.
Tomasello, Michael (2003) *Constructing a Language: A Usage-Based Theory of Language Acquisition*, Harvard University Press, Cambridge.
Yamanashi, Masa'aki (2009) *Ninchikobunron* (Cognitive Construction Grammar), Taishukan, Tokyo.

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