

Analyzing transferred epithets with MSFA

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1. Introduction

“Transferred epithets” are generally defined as the adjectives that seem to have been transferred from the adverbial position to the prenominal position in a sentence (e.g. *thoughtful* in *I balanced a thoughtful lump of sugar on the teaspoon*; Hall, 1973, p. 92). The main purpose of this paper is to bring in an MSFA approach to this linguistic phenomenon. The present work is a preliminary study for a more comprehensive investigation. Nevertheless, the implications are certainly significant for future research on not only transferred epithets but also adjectival semantics in general.

2. Background

2.1. The previous accounts and beyond

Transferred epithets are reasonably known among linguists, but to our knowledge, little research has been provided on this phenomenon in the literature. A variety of approaches have been proposed in adjectival semantics, but our impression is that transferred epithets are among those that challenge the theoretical and descriptive foundations of previous approaches most severely, and this might be the reason why study in this area is lacking. As the first author of this article pointed out elsewhere (Shibuya, 2006), classical transformational and classical semantic accounts for adjectives (e.g. Vendler, 1967; Katz & Fodor, 1963) would have difficulties in explaining transferred epithets. Cognitive linguistics accounts for adjectival semantics (e.g. Lakoff 1987; Langacker, 1991) provide more elaborate semantic descriptions than the classical accounts. Nevertheless, they still leave some questions unclear, for they do not explain why the same adjective shows different sense availability (in particular, in terms of metonymic senses) in different adjectival constructions (for details, see Shibuya,

2005). Transferred epithets are, as will be discussed in this paper, highly metonymic, which means that the previous cognitive linguistics accounts for adjectival semantics would not work well for this linguistic phenomenon. In Shibuya (2006), the first author argued for adopting a constructionist approach to transferred epithets. In this paper, we propose to take an MSFA approach to transferred epithets with the aim of pushing the analysis forward.

2.2. What is MSFA?

MSFA stands for *Multilayered Semantic Frame Analysis* (Kuroda & Isahara, 2005). It provides a multidimensional description of “contextualized” meanings of words and phrases. The framework is compatible with the Berkeley FrameNet project (Baker *et al.*, 1998; Lowe *et al.*, 1997).¹ The descriptive scheme of MSFA is employed in the JCASR (*Japanese Corpus Annotated for Semantic Roles*) Project, which aims to develop a relatively small Japanese corpus of texts annotated for “semantic frames” and their “frame elements” (aka “semantic roles”).²

In conducting an MSFA, one puts an emphasis on the identification and specification of finer-grained, situation-specific roles at concrete levels (e.g. <Robbers>, <Victim>, <Valuables>) rather than those of coarse-grained, general-purpose roles at abstract levels (e.g. <Agent>, <Patient>, <Theme>). This view is theoretically motivated by the hypothesis held in MSFA that deeper understandings are achieved at concrete levels (for discussions, see Kuroda &

¹ There are, however, crucial differences between MSFA and the Berkeley FrameNet. For details, see Kuroda & Isahara, 2005, Kuroda *et al.*, 2006, and Shibuya *et al.*, 2006.

² The JCASR Project is one of the on-going research projects at the National Institute of Information and Communications Technology (NICT), Japan.

Isahara, 2005; Kuroda *et al.*, 2006; Shibuya *et al.*, 2006).

3. MSFA and transferred epithets

3.1. Shibuya (2005, 2006)

Consider the examples of transferred epithets given in (1) (Hall, 1973, p. 92):

- (1) a. I balanced a *thoughtful* lump of sugar on the teaspoon.
- b. He was now smoking a *sad* cigarette.

Here, *thoughtful* and *sad* modify something that they “should not” normally. Paraphrasing (1a-b) makes the semantic transfer involved in these examples clear. As Hall (1973) notes, (1a) can be paraphrased as “I thoughtfully balanced a lump of sugar on the teaspoon”, and (1b) as “He was now sadly smoking a cigarette” (pp. 92-93).

Shibuya (2005) explored the sense distributions of 50 English adjectives and showed that the attributive construction allows greater semantic flexibility, while the predicative construction is bound to the direct (i.e. non-metonymic) semantic type. Extending the scope of Shibuya (2005), Shibuya (2006) went on to study transferred epithets, suggesting that the “unusual” modification observed in transferred epithets is because the function of modification permits complex semantic relations (including e.g. manner of action and emotional states of the person involved in the event in question) between the modifying word (i.e. adjective) and the modified word (i.e. head noun). What was not made clear in Shibuya (2006) is exactly how transferred epithets are understood, or more specifically, how the complex semantic relations between the modifying word and the modified word are understood in transferred epithets. The present article focuses on this comprehension problem with MSFA.

3.2. Procedures

The present study is preliminary work towards a comprehensive study of transferred epithets. In this article, we only report a study conducted on *thoughtful*.

Prior to an MSFA on *thoughtful*, we conducted a corpus study, whose procedures are summarized as follows:

1. We searched the British National Corpus for

thoughtful. All the BNC subcorpora were searched. The total number of instances collected is 600.

2. We then classified the instances by their construction types. The numbers are: Attribution: $N=341$, Predication: $N=195$, Others: $N=64$.
3. Finally, we classified the attributive and predicative uses of *thoughtful* by their semantic types of the adjective.

3.3. Results of the corpus study

A total of seven semantic types were identified with *thoughtful*:

- I. “that someone thinks about and cares for other people”
- II. “that someone considers things carefully”
- III. “that someone is quiet because s/he is thinking”
- IV. “that the thing shows (or is suggestive) that the person is a considerate, kind individual”
- V. “that the thing shows (or is suggestive) that the person is a careful individual”
- VI. “that the thing shows (or is suggestive) that the person is thinking”
- VII. “that the time shows (or is suggestive) that the person is quiet because s/he is thinking”

Examples of these semantic types are as given below in (2)-(8), respectively.

- (2) a. One *thoughtful* member of the hotel staff even provided her with a tray of crisps. [197 B73]
- b. He was *thoughtful* and caring, but strong-willed and quick-minded. [505 GXL]
- (3) a. Nowadays a *thoughtful* parent will say, “Don’t pick up things from the floor and put them in your mouth; they are dirty and might make you ill.” [158 FP6]
- b. These people are often *thoughtful* and clever, but so far they have not been able to bring about worthwhile changes. [507 A2P]
- (4) Lili looked *thoughtful*, but I didn’t know what she was thinking about. [366 HHB]
- (5) a. From the sunlit atrium with its glass elevator to the tasteful rooms and *thoughtful* service, this hotel shines with refined comfort. [283 ATE]

- b. Her answering smile was *thoughtful* as she watched him duck gracefully through the doorway. [547 H94]
- (6) a. Some *thoughtful* articles aim to make connections, perhaps across national and language frontiers, or between disciplines. [39 KS8]
- b. The discussion throughout the book is lucid and *thoughtful*, and many readers will find Petrey’s arguments convincing. [354 GUE]
- (7) a. He starts the day with these vices — the quiet glass of red wine, the *thoughtful* cigar — and isn’t that meant to be especially bad? [52 J17]
- b. His mouth curved in amusement, but his narrowed gaze was *thoughtful*, as though her observations had surprised him. [362 JYA]
- (8) She spoke with such soft intensity that he stared at her for a long, *thoughtful* moment. [240 ACB]

Table 1 gives the details regarding the number of instances in each semantic type in attribution and predication:³

Table 1: The sense distribution of *thoughtful* in attribution and predication

	Attribution	Predication
I	20	89
II	84	22
III	0	42
IV	21	19
V	140	16
VI	55	7
VII	21	0

The table shows that the most frequent use of *thoughtful* is to denote a referent’s (typically denoted by HUMAN nouns) particular mental characteristics about things around him/her (I and II). Following the convention in Shibuya (2005) as to how to classify an adjective’s meanings, the semantic types I and II are identified as the “direct” (non-metonymic) sense types of the adjective, and the other semantic

³ The semantic type III is not found in the sample with the attributive construction. In the predicative construction, the semantic type is found typically with such verbs as *look*, *appear*, *become*, and *grow*. Future research should investigate why this semantic type shows discrepancies in the availability in the attributive and predicative constructions.

types are analyzed as “indirect” (metonymic), which are related to the direct ones somehow metonymically in the relevant frames.⁴ The indirect senses of *thoughtful* are “evidential” (III, IV, V, VI) and “temporal” (VII). That is, they either refer to something that shows that the person has particular mental characteristics, or they denote that the person is thinking about something at a certain time specified by the head noun.⁵

3.4. Discussions with MSFA

The sample includes both non- and apparently transferred epithets.⁶ Conducting an MSFA on the sample reveals the following points:

1. The sentence with a transferred epithet consists of words that encode a set of situations which altogether evoke a situation (or a script).
2. The primary participant identified in each situation (frame) is the same individual participating in the more comprehensive (but concrete, not abstract) situation (script). Typically, the primary participant is the subject of the sentence.

An MSFA of (7a), for example, identifies the involvement of a set of frames such as <smoking a cigarette> and <thinking>, each of which includes the semantic roles such as <smoker>, <cigarette>, and <thinker>, <thing thought about>, etc. The set of situations are linked with a more comprehensive (concrete) situation where one is smoking a cigarette while thinking about something. The primary participant identified in each of the sub-frames (i.e. someone performing the action in the frame) is the person performing the act of smoking while thinking about something.

In the direct uses of *thoughtful*, there is no such superordinate situation (script). To give some instances, *thoughtful* and *member* (of 2a) and *thoughtful* and *parent* (of 3a) both only

⁴ Specification of the semantic type III is an urgent issue for future research.

⁵ The term “evidential” is used here in a rather abstract fashion. It is used to denote anything that is suggestive of the person’s particular type of mental characteristics. More work needs to be done on the relationships among the subtypes of the evidential uses.

⁶ (7a) illustrates a case of transferred epithets, whereas (7b) is not, because by definition the predicative use of an adjective is not regarded as such.

denote a situation where someone is described as having some qualities in thinking (i.e. whether “kind” or “careful”). Understanding the indirect uses of *thoughtful* is more complicated than the direct ones, because they are metonymic (evidential or temporal). However, comprehension of the indirect evidential “non-transferred” epithets (examples 5a and 6a) is by no means as complicated (i.e. conceptually more challenging) as that of transferred epithets, because in the former, although it is metonymic, the head noun is still used to evoke the person’s particular mental characteristics (i.e. “kind” or “careful”), similar to the direct ones.

The results suggest that transferred epithets are among those that require a particularly deep evocation of the relevant frames for understanding. Instances of transferred epithets are semantically more complicated than both the direct and the other evidential types, because they do not refer to the person’s particular mental characteristics, but his/her “temporal” state (thinking) while participating in some other action (recall the case of 7a). It appears that there is a gradient among ADJ-NOUN phrases in terms of the degree of semantic relationship (or “salience”) held by the adjective and the head noun. Semantically, the least distant relation (i.e. semantically the most salient) between *thoughtful* and the head noun is held by the semantic types I and II, followed by IV and V.⁷ Towards the other end of the pole (i.e. where the relationship between the modifier and the head noun is the least salient), there are VI and VII.⁸ As mentioned earlier, Shibuya (2006) suggests that the “unusual” modification found in transferred epithets is because of the function of modification that permits complex semantic relations between the modifying word (i.e. adjective) and the modified word (i.e. head noun). In light of the results of the present study, we argue that transferred epithets of *thoughtful* embody an extreme case of the evidential use of the adjective. A transferred use of an adjective is merely a by-product of the function of the attributive construction that allows a deep evocation of the relevant frames (cf. Shibuya,

⁷ As noted earlier, the semantic type III requires a special treatment, because this use often takes place with the verbs such as *look*, *appear*, *become*, and *grow*, which all seem to contribute to the temporal reading in *thoughtful* in some fashion.

⁸ Future research should study which semantic type (VI or VII) lies at the furthest end of the pole.

2005). Understanding ADJ-NOUN phrases is not just a matter of putting the semantics of the adjective and the noun together. Rather, it also requires reference to the elements of the whole sentence (recall the two points made in the beginning of this section).

4. Conclusion and prospects

In this article, we have discussed transferred epithets with MSFA. The previous accounts lack descriptive adequacy, but it appears that MSFA works well for a phenomenon like transferred epithets. Many issues still remain to be explored in more detail, which we would like to leave for future study.

References

- [1] C.F. Baker, C.J. Fillmore, and J.B. Lowe, “The Berkeley FrameNet project,” *Proc. of the COLING-ACL98*, pp. 86–90, Montreal, 1998.
- [2] R.A. Hall Jr., “The transferred epithet in P. G. Wodehouse,” *Linguistic Inquiry* 4, pp. 92–94, 1973.
- [3] J.J. Katz and J.A. Fodor, “The structure of a semantic theory”, *Language* 39, pp. 170–210, 1963.
- [4] K. Kuroda and H. Isahara, “Proposing the Multilayered Semantic Frame Analysis of text,” *Proc. of the 3rd International Conference on Generative Approaches to the Lexicon*, pp. 124–133. Geneva, Switzerland, 2005.
- [5] K. Kuroda, M. Utiyama, and H. Isahara, “Getting deeper semantics than Berkeley FrameNet with MSFA,” *Proc. of the LREC-06 (P26-EW)*, Genova, Italy, 2006.
- [6] G. Lakoff, *Women, fire and dangerous things: what categories reveal about the mind*, Chicago: University of Chicago Press, 1987.
- [7] R.W. Langacker, *Concept, image, and symbol: the cognitive basis of grammar*, Berlin: Walter de Gruyter, 1991.
- [8] J.B. Lowe, C.F. Baker, and C.J. Fillmore, “A frame-semantic approach to semantic annotation,” *Proc. of the SIGLEX Workshop on Tagging Text with Lexical Semantics*, pp.18–24, Washington, D.C., 1997.
- [9] Y. Shibuya, *Concepts and constructions: an ecological approach to adjectives*, Ph.D. dissertation, Department of Linguistics, University of Manchester, 2005.
- [10] Y. Shibuya, “On transferred epithets: a constructionist approach,” *Proc. of the 2006 Seoul International Conference on Linguistics*, pp. 229–238, Seoul, South Korea, 2006.
- [11] Y. Shibuya, K. Kuroda, J. Lee, and H. Isahara, “Specifying deeper semantics of a text using MSFA,” *IEICE Technical Report* 106, pp. 27–32, 2006.
- [12] Z. Vendler, *Linguistics in philosophy*, Ithaca: Cornell University Press, 1967.