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Elisa Mattiello, Analogy in word-formation: A study of English neologisms and occasionalisms (Trends in Linguistics: Studies and Monographs 309). Berlin & Boston, MA: De Gruyter Mouton, 2017. Pp. vii + 340.

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There is abundant evidence in the morphological literature that new words can be formed on the basis of existing words, and/or relations between them. This book by Elisa Mattiello provides an in-depth study of analogical phenomena in English word formation, which includes a morphological classification of analogy, the process of coining a new word based on an existing model word or a set of words. The book attempts to conciliate 'the generative, rule-based morphological approach with the connectionist analogical approach' to word formation (v).

The introductory chapter (1–22) contains a review of literature on analogy in various fields of linguistics. In reference to word formation, Mattiello criticizes 'the common (mis-)conception' (4) of morphological literature, conceptualising analogy as a rare phenomenon, unrelated to morphological rules. In agreement with the arguments in Becker (1990) and Bat-El (2000), the author claims that analogy 'can be accounted for within grammatical morphology' (7). Mattiello's study aims to investigate how analogical mechanisms work on different levels of language, and to consider analogical formations from the point of view of their predictability, recoverability of the model form, and alignment with morphological rules.

Chapter 2 (23-35) comprises an overview of empirical data collected for the study, which are characterised as new words, although it is noted that some of them (18.64%) are 'past neologisms', i.e. words coined between the 14th and the 19th centuries. From a diachronic perspective, any existing word is a past neologism, and in this respect it remains unclear what criteria were used to select the data for the study: date of earliest attestation in particular lexicographic sources, being classified as analogous by dictionaries, appearing attention-catching and playful, or other criteria. The collected corpus consists of 874 examples of formations either classified as analogical in the original sources, or analysed as such by the author. The items in the corpus are further classified as neologisms, that is, 'words with more than one attestation, either in the OED or in the investigated corpora or both' (35), and occasionalisms, that is, words attested only once in one of the sources used for data collection which include TIME Magazine Corpus, COCA, GloWbE and a number of web-based and literary works (Davies 2007, 2008, 2013). Mattiello refers to some of the collected words as 'stable items, attested in corpora, archives, dictionaries, or literary works' (31), in comparison to 'more ephemeral' (30) neologisms attested only in web-based sources. However, the 'stability' of literary neologisms in this collection is

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doubtful, given that literary analogical coinages were taken from Gerard Manley Hopkins' poems, and from James Joyce's novel *Finnegans Wake*, which are noted for experimental use of language including creative word formation. Despite these stipulations, the corpus contains items of various morphological structures, meticulously selected from a variety of contexts and domains, and its value for further studies of analogy is hard to overestimate.

Chapter 3 (36–111) discusses the role of analogy in English word formation. Section 3.1 provides an account of the influence of analogy in language change using the examples of combining forms that come into use as a result of analogical formations. In particular, neologisms containing combining forms -napping (originally the final part of kidnapping) and -sitter (from babysitter) in COCA and the TIME Magazine Corpus are discussed. For each of these combining forms, a number of neological formations are found in both corpora (e.g. catnapping, bike-napping, housesitter and petsitter). This evidence is used by Mattiello to argue that a single analogical formation (classified as 'surface analogy') may give rise to a productive schema, which, in its turn, can become the source for further analogical formations. The distinction between surface analogy and analogy via schema can be problematic, 'at least, diachronically speaking' (45). This taxonomic difficulty is similar in nature to the distinction among splinters and combining forms that is discussed in Section 3.2. Both splinters and combining forms, according to Mattiello, are sources of 'analogy via schema'. An example of splinter is -tarian originating from vegetarian and used recurrently in several blend words such as *flexitarian* and *fruitarian* (72); an example of a combining form is -(a)thon originating from marathon and used in e.g. swimathon and dancethon (69). Mattiello describes splinters as retaining the semantics of the original words (72-73), but the same is true of combining forms, and it is problematic (if possible at all) to determine the degree of meaning preservation in each particular case. The author admits that the boundary between splinters and combining forms is fuzzy, and dictionaries may not provide reliable grounds for classification (see also Bauer, Lieber & Plag 2013 for a discussion). Despite this, the distinction among splinters, combining forms and affixes is used to illustrate the increase in productivity that some formatives demonstrate.

The development of analogy via schema is regarded by Mattiello as the result of the increase in the productivity of a particular formative. This concept dominates the classification of analogy established in Section 3.3. Another factor that underlies the taxonomy of analogical formations is their compliance with the constraints of regular morphology. Based on the distinction between grammatical, marginal, and extragrammatical morphology developed in Dressler (2000), Mattiello classifies analogical formations with regard to the grammaticality of (i) their model words, and (ii) the resulting analogies. For example, the analogical compound *brainwriting* is coined after a regular compound *handwriting* in compliance with regular English morphology (80). On the other hand, analogies containing combining forms (e.g. *filmography* after *bibliography*) are classified

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as marginal, and analogies modelled on blends or abbreviations, such as *blax*ploitation ('the exploitation of black people', coined after sexploitation, a blend of sex and exploitation), and VJ (video-jockey) coined after DJ (disc-jockey), are classified as extragrammatical (82). In addition, some analogical formations are analysed as not complying 'with the rules of English word-formation or universal grammar principles' (85), e.g. the term complexability coined after employability is classified as ungrammatical because '-able is irregularly added to an adjective' (85). Such examples raise the question of whether it is at all possible to apply criteria of grammaticality to analogies. Moreover, certain analogies are classified as either marginal or extragrammatical on the grounds that they contain combining forms or splinters, which is a problematic distinction in itself. Therefore, the judgements regarding (un)grammaticality of certain analogies may need reconsideration, especially in regard to the compliance with the principles of universal grammar, which are not discussed in the book. Finally, Section 3.3 provides a morphological classification of analogical formations, illustrating that analogies can be found among derivations, e.g. underkill after overkill (96), compounds, e.g. slow food after fast food (97), acronyms, e.g. MARV (manoeuvrable re-entry vehicle) after MIRV (multiple independent re-entry vehicle) (99) and other morphological types. Although the analysis of some units as analogical is disputable, the diverse examples collected by Mattiello illustrate that 'words (or word series) belonging to all word-formation categories can function as models for the analogical process' (100).

Chapters 4–7 present analyses of examples of analogical formations in four semantically and functionally diverse domains: specialised terminology (Chapter 4, 112–131), juvenile slang (Chapter 5, 132–153), journalistic language (Chapter 6, 154–170) and literary works (Chapter 7, 171–192). First, the analogies are characterised in terms of productivity of the model (i.e. surface analogy or schema), which is followed by an analysis in terms of the types of model and target, i.e. their (extra)grammaticality/marginality. Additionally, the contexts surrounding the analogical formations are characterised in terms of the presence of the model, and the contexts where the model word is present are further subdivided into anaphoric (i.e. where the model word precedes the analogy) and cataphoric (where the model word follows the analogy). In Chapters 4–6, the descriptive statistics on the distribution of analogical formations in the relevant corpora are also included.

The analogical origin of a number of examples provided by Mattiello can be disputed. Above all, this concerns cases of 'grammatical analogy', i.e. where, according to Mattiello, analogy is combined with rules. In most cases of 'surface analogy' the analogical model is plausible, e.g. the semantic relationships between the political terms *rightism* and *leftism* are evident (115). There are, however, cases described as analogical coinages, which could be analysed with no reference to analogy. For example, *dialectician* analysed as 'analogical with de-adjectival nouns ending in *-ician*' (116), can be classified as formed by a productive suffix. Similarly, medical terms *osteotomy* and *myotomy* are described as analogical to

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anatomy (119); however, an analysis involving a neoclassical combining form *-tomy* originating from Greek $\tau \not{\epsilon} \mu \nu \omega$ meaning 'cut' (*OED*) is more plausible. Furthermore, in her analysis of literary occasionalisms, Mattiello sometimes makes assumptions about the analogical origin of formations solely on the basis of their co-occurrence, though in most cases analogical analysis is corroborated by evident phonological and/or semantic relatedness between the model and the target, e.g. *whitethorn* and *redthorn* (184), *youthsy* and *beautsy* (185). Overall, the analysis of analogical formations in Chapters 4–7 illustrates the importance of analogy as a mechanism of word formation in various domains.

Chapter 8 presents the results of a small-scale experiment on the acceptability of analogical formations, as estimated by native English speakers. Twenty-six participants of the experiment rated ten English analogical words on the scale from 1 (= fully acceptable) to 5 (= unacceptable), first in isolation and then in context. The analysis of experimental results revealed that items formed in accordance with regular morphological model were rated as more acceptable than 'both ungrammatical and extra-grammatical words' (202). Other factors reported as increasing the acceptability of analogical formations were 'semantic neighbourhood between the target and the model', phonological similarity between the target and the model, and 'the presence of the model either before or after the target' (207). As acknowledged by Mattiello, the results of the experiment are not statistically significant, and the tendencies that are revealed need further investigation.

In Chapter 9, Mattiello concludes that analogy should be regarded as part of paradigmatic morphology, in the terminology of Bauer et al. (2013), because most analogical formations cannot be effectively analysed as concatenations but, rather, should be analysed in paradigmatic relations with 'related words' (214).

In addition to the author's conclusion that analogy 'should not be neglected or dismissed from morphological accounts' (219), it is worth noting that the data and the analyses presented in the book provide grounds for incorporating analogy into working models of word formation (such as exemplar-based accounts of morphology). Empirical data collected for the study demonstrate that various word-formation processes can be analysed as driven by analogy, which is also a cognitive mechanism which has impact on both word recognition and word formation. Despite some typographical errors and the inconsistencies of the analyses pointed out in this review, the book is serviceable as a reference source for anyone interested in English word formation.

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