Review

Pustet, Regina, 2003. Copulas: Universals in the Categorization of the Lexicon. (Oxford Studies in Typology and Linguistic Theory). Oxford University Press, Oxford. xiv + 262 pp. ISBN 0 19 925850 3.

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Copulas is a cross-linguistic study that aims to provide an account of the grammatical and discourse properties of copulas in terms of concepts derived from functional-cognitive linguistics (e.g. Croft 1991, Givón 1979, 1984). The data for the study are partly extracted from the literature on the various languages included and partly elicited from native speakers. The number of languages mentioned, 194 according to the index, is impressive. The book comprises five chapters plus preliminary materials (preface, lists of abbreviations, figures and tables) as well as six appendices, references and an index containing linguistic terms, names of languages and of persons.

The first chapter ('Copulas in Current Research') raises the question of what the function of copulas may be, given that they are commonly considered to be meaningless and that languages may or may not have them. The notion 'copula' is defined by Pustet in the following way: "A copula is a linguistic element which co-occurs with certain lexemes in certain languages when they function as predicate nucleus. A copula does not add any semantic content to the predicate phrase it is contained in." (p. 5.) The greatest part of the first chapter deals with the "parts-of-speech issue" (p. 7), that is, with the long-standing problem of properly accounting for the existence and definition of, as well as the distinction between, word classes. The reason why this issue is prominent in the present context is that, despite the problems attached to the traditional notion of the major parts-of-speech, "one cannot help but notice that there is an intimate connection between patterns of copula usage and the division of the lexicon into the major parts of speech noun, verb, and adjective." (p. 7.) Pustet does not spell-out this 'intimate connection' in more detail at this point. She prefers to discuss the parts-ofspeech issue as such first, drawing heavily on Croft's (1991, 2001) markedness approach to lexical categorization and Givón's (1979, 1984) time-stability approach, which are said to "independently account for the traditional segmentation of the lexicon into nouns, verbs, and adjectives" (p. 21). More specifically, lexical classes are said to form a scale or "implicational hierarchy NOUNS > ADJECTIVES > VERBS" (p. 16) in which adjectives have a hybrid status between the other two classes. It is unclear at this point in which sense this scale builds an "implicational hierarchy" (p. 16). The connection between copula usage and lexical classes is made more explicit in the final section of the first chapter, which foreshadows the key result of later chapters: "if any lexical class in this scale admits copula use in a given language, any lexical class to the left of it also admits copula use." (p. 24.) This is what Pustet means by calling the scale nouns > adjectives > verbs an "implicational hierarchy".

The basic question underlying chapter 2 ('Copulas in Cross-linguistic Perspective') is "about the ways in which languages differ with respect to the use of copulas with various types of lexical items." (p. 27.) Pustet introduces the terms 'nominal', 'adjectival', 'verbal' as labels for classes of lexical items "that designate concepts belonging to the semantic macro-classes of entity, event, and property" (p. 28). This is said to be motivated by the "problematic status of the traditional parts of speech noun, verb, adjective" (p. 28) and by the fact that "entities, events, and properties constitute the semantic prototypes in terms of which the overwhelming majority of

members of the traditional lexical classes noun, verb, and adjective, respectively, can be characterized." (p. 28.) The criteria and procedure for classifying lexemes as nominal, adjectival, or verbal are not revealed, so that their appropriateness cannot be assessed.

The grammatical framework for the analysis of copula structures shows idiosyncracies that are hardly compatible with other frameworks. For example, with respect to the sentences

- (1) a. he is the teacher
 - b. this is the red one
 - c. he is the one who bought my car

Pustet writes "the noun *teacher*, the adjective *red*, and the verb *to buy* function as nuclei of identificational predicates." (p. 30.) In traditional and generative frameworks, by contrast, the predicates of (1b, c) would be noun phrases or DPs, just like the predicate of (1a).

After discussing the complications raised by 'copula dropping', i.e. the fact that there are languages in which the copula can be freely omitted or in which it may or must be omitted under specific conditions, Pustet prepares the main part of chapter 2 by addressing the morphosyntactic properties of copulas, elaborating on the phenomenon that languages may have more than one copula, and making a diachronic digression about their genesis. The main part, then, consists of the description and discussion of the typology of copularization patterns as revealed by her cross-linguistic study, the results of which are as follows: Of 131 languages investigated, 31.5% are non-copularizing (e.g. Tagalog), 20.8% copularize only nominals (but not adjectivals and verbals) (e.g. Burmese), 41.2% copularize nominals and adjectivals (but not verbals) (e.g. German). The remaining languages either copularize all three classes (1.5%, i.e. 2 languages, Bambara and Iraqw), or copularize nominals and some, but not all, adjectivals (4.6%, e.g. Japanese), or copularize nominals and adjectivals and some, but not all, verbals (Basque being the only language in the sample). Furthermore:

if a language has a copula which combines with only one of the three semantic macro-classes, this copula will combine with the class of nominals; if a language has a copula which combines with two of the three semantic macro-classes, this copula will combine with the classes of nominals and adjectivals; only if a given copula combines with all three of the basic semantic macro-classes, will it also combine with verbals. Languages in which verbals copularize, but nominals and adjectivals do not, are not documented in the sample. (p. 78.)

This is, of course, a variation in terms of semantic macro-classes of the implicational hierarchy nouns > adjectives > verbs mentioned above.

Finally in chapter 2, Pustet discusses this potential universal in connection with Croft's (especially 1991) markedness model of lexical class distinction: Predicates with a verbal nucleus are more frequent in discourse than predicates with an adjectival nucleus, and predicates with an adjectival nucleus are more frequent than predicates with a nominal nucleus. Thus, in terms of discourse frequency, nominals are more marked predicate nuclei than adjectivals, the latter being more marked predicate nuclei than verbals. Pustet's point now is that this markedness scale in terms of frequency correlates with markedness in terms of the morphosyntactic complexity effected by copularization. That is, nominals copularize 'implicationally first', adjectivals copularize 'implicationally second', and verbals 'third'.

The third and fourth chapters are devoted to the study of potential correlations between the patterns of copularization and the semantic dimensions that have been discussed as underlying the distinction between the semantic macro-classes nominals, adjectivals, verbals.

Chapter 3 can be considered a reconsideration of the implicational generalization about copularization and semantic macro-classes on a more fine-grained level. Each item in a sample of between 530 and 850 lexical items per language in a set of ten genetically, geographically, and typologically diverse languages is specified as to whether it possesses the value + or - or +/- (if both + and - are possible in different contexts) of the binary semantic features [dependent], [dynamic], [transient], [transitive]. The semantic dimensions (parameters) dependency, dynamicity, transience, and transitivity are said to be derived by the minimal pair method (see p. 92). This method contrasts lexemes that are "semantically similar" (p. 90), but differ with respect to copula use, such as in *This cheese smells* versus *This cheese is smelly*. Such pairs are then investigated as to their semantic difference. According to Pustet, it turns out that the semantic differences thus established can be described by the dimensions (parameters) dependency, dynamicity, transience, and transitivity, which are, for the most part, closely related to notions used to account for word class distinctions in the functional-cognitive linguistics literature (dynamicity: Langacker's (1987) 'processuality'; transience: Givón's (1979) 'time-stability'; dependency: Croft's (1991) 'relationality'). For each of the languages investigated and for each value (+, -, +/-) of the four semantic parameters (dimensions) the number of copularizing and noncopularizing lexemes from the sample of items is counted. The statistical analysis of the data leads to generalizations of the following kind: "Lexemes whose intrinsic semantic profile contains the feature value [-transient] copularize; lexemes whose intrinsic semantic profile does not contain the feature value [-transient] do not copularize." (p. 149.)

One of the aims of chapter 4 ('The Multi-factor Model of Copularization') is to account for exceptions to the generalizations established in chapter 3. According to Pustet, one factor that may play a role in this respect is diachronic change: Lexemes may migrate between copularizing and non-copularizing semantic classes so that exceptions to the generalizations may be due to the respective lexemes being in a stage of transition between classes. For example:

At least in Indo-European languages, participles constitute a rich diachronic source for copularizing lexemes which can be classed as adjectivals in semantic terms. Homonymies between auxiliaries which accompany participles in predicate position and copulas presumably facilitate the rise of such neologisms. As participles grammaticalize into morphosyntactic adjectives, the auxiliary is gradually reanalyzed as a copula. The English forms *astonished*, *scared*, and *worried*, among many others, are currently undergoing the transition from participle to adjective. (p. 158.)

It is not clear to me in which way precisely observations like these are thought to be capable of explaining exceptions to the generalizations. For example, do such 'migrations' pose problems of analytical classification to the researcher that potentially result in exceptions, or is it rather some fuzziness inherent in language that is at issue? (And whatever the latter may mean would need careful discussion too.)

The bulk of chapter 4 is concerned, however, with the integration of the four semantic parameters into a multi-factor model in which the parameter values are conceived of as non-necessary and non-jointly-sufficient features as in prototype theory. After having collapsed dependency and transitivity into the parameter valence with the values 0, 1, or 2 (following Croft 1991), Pustet sets up a semantic classification consisting of classes that are defined by one of the 27 logically possible combinations of the values of the three parameters dynamicity, transience, valence and that are actually attested by at least one lexeme in any of her lexical samples from ten languages

(Burmese, Cantonese, German, Hungarian, Indonesian, Japanese, Lakota, Swahili, Thai and Turkish). She presents a list of 17 attested classes (A-Q), in which class G, for instance, is characterized by the parameter combination [valence: 2], [transience: +/-], [dynamicity: -] and exemplified thus: "emotional/mental acts or states ('to love', 'to know'); concepts denoting possession ('to have'); concepts denoting resemblance ('to resemble')" (p. 162); class K, to give another example, has the parameter values [valence: 0], [transience: +], [dynamicity: +] and comprises "meteorological events ('to rain')" (p. 162). In the next analytical step Pustet displays, for each of the ten languages, the location of each of the 17 lexical classes in three-dimensional coordinate systems on whose axes, which represent the three parameters, the parameter values serve as coordinates. Her analysis of these graphs results in the observation that

in any of the ten sampled languages, all members of the classes A on the one hand, and N and Q on the other, show uniform behavior with respect to copularization: class A (prototypical nominals ('house', 'dog'), nominals designating sex ('woman'), age nominals denoting permanent membership in age group ('old man'), nominals referring to bodily or mental disposition ('glutton', 'genius')), always copularizee, while the two verbal classes N (prototypical intransitive verbals ('to go')), and Q (prototypical transitive verbals ('to buy')) never do. (p. 170.)

Class D (prototypical adjectivals ('big', 'good', 'red'); positionals ('to sit', 'to stand') and other statives ('to stink')) is mixed with respect to copularization in all sampled languages except Lakota and thus, at least at first glance, seems to refute the claim that focal classes always show uniform behavior. However, a closer look at the exact distributional figures [...] shows that in all languages except Japanese, the composition of the mixed adjectival class D is extremely unbalanced as to the contrast between copularizing and non-copularizing lexemes. (p. 170-176.)

Given the fact that languages, by and large, avoid categorizing class D lexemes in the way Japanese does, it can be concluded that the principle of cognitive economy is also effective in the organization of the adjectival class D. (p. 176.) Another observation, which takes also those lexical classes into account that are not

Another observation, which takes also those lexical classes into account that are not prototypical instantiations of the three macro-classes nominal, adjectivals, verbals, reveals the overall systematicity of the copularization patterns in an even more interesting way:

[I]n any one language in which both copularizing and non-copularizing lexemes exist, there is a bipartite segmentation of the lexicon into a copularizing *vs.* a non-copularizing part which is defined by a single cut-off point in semantic space, and [...] any lexical item located to the left of this cut-off point copularizes, while any lexical item located to the right of the cut-off point is incompatible with copulas. [...] Areas in semantic space which deserve special attention are those located between classes which display internally uniform but distinct behavior with respect to copularization. Only lexical classes positioned in such areas exhibit a mixed composition, that is, they contain both copularizing and non-copularizing lexemes. (p. 177.)

The main aim of chapter 5 ('Synopsis') is to summarize the preceding chapters. What I found startling is that the remark that all copularization systems investigated "are, ultimately, shaped by a single underlying principle: that of cognitive economy" (p. 189) is almost immediately followed by the following passage:

One might still wonder why a language 'needs' a copula, given that there are so many languages that fulfill their communicative purposes effectively without

employing copulas. In response, it can be stated that languages might in fact produce structures they do not 'need'. Copulas can be interpreted as mere morphosyntactic ballast, as nothing more than the material outgrowth of the markedness principle. (p. 189.)

One wishes for an explanation of how Pustet thinks that these statements, which appear contradictory, can be made compatible.

It is obvious that the amount of work that went into the collection and analysis of data for the study under review is colossal. Pustet deserves deep respect for having undertaken it. The importance of the key results of the investigation, notably the hierarchy nominals > adjectivals > verbals, which represents a potential implicational universal with respect to copularization, can perhaps be best appreciated by speakers of a non-copularizing or fully copularizing language, or if one imagines oneself to be a speaker of such a language. For speakers of other languages the implicational hierarchy may not appear spectacular, since a bipartition of the lexicon into a copularizing and a non-copularizing part with nominals at one pole and verbals at the other will appear quite natural to them; and the idea that the dividing line between these parts may be located differently in different languages suggests itself readily. However, Pustet shows not only that things are indeed this way cross-linguistically, she also tells us where the dividing line runs in which languages from a considerable large sample, and she reveals interesting details and patterns from the 'gray areas' between the dividing line and the (non-)copularizing poles.

In opposition to the strengths of the study in cross-linguistic scope stand weaknesses in theoretical consistency and methodological accuracy (or perhaps in the way methodological decisions are explained or discussed rather than methodological accuracy itself). For example, as concerns the selection of lexemes for the study of the correlation patterns between semantic dimensions and copularization, Pustet points out that it was "necessary to restrict the samples to lexemes which, due to their semantic content, qualify as potential predicate nuclei" (p. 89). One wonders what the criteria are for determining which semantic content qualifies a lexeme for being a predicate nucleus. No explanation is provided. Furthermore, Pustet claims on the one hand that "[t]he dividing line between lexicon and grammar is a blurred and artificial one anyway" (p. 93), explaining on the other hand that

"[o]nly those lexical items were included in the samples which clearly do not import any grammatical 'matter' into the test clauses which could be held responsible for the behavior of a given lexeme with respect to copularization. This restriction is to be taken as another safeguard against the ever-present danger of intermingling copularization triggered by grammatical categories and copularization conditioned by lexical semantics." (p. 93f.)

It is hard to see how someone who subscribes to the view expressed in the first quotation can confidently believe in the efficiency of safeguards taken against the danger mentioned in the second.

On the whole, the book makes a somewhat imbalanced impression: There is this vast amount of cross-linguistic data processed by its author; and there is the need to be methodologically extremely careful and alert in assessing and evaluating the mass of information drawn from the literature and from native-speakers about grammatical, semantic and lexical issues in languages one is not familiar with by native or nearnative competence. The (degree of) satisfaction of this need is not always adequately reflected on the 195 text pages. Fewer redundancies in the expression of the key ideas in favor of more theoretical and methodological discussions may have redressed the balance.

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