Andrea D. Sims. *Inflectional defectiveness*. Cambridge: Cambridge University Press. [Cambridge Studies in Linguistics.] 2015. pp. xxi, 309.

Reviewed by Frank Y. Gladney*

The Russian verb *pobedit'* 'conquer' shows what Sims calls canonical defectiveness, "the complete lack of any word-form filling a given paradigm cell [...] in the context of a maximal expectation that there should be some form corresponding to that cell" (250). That cell is the first-person singular nonpast, in which *pobežu is bad and so are *pobedju and *pobeždu. In this wide-ranging study she cites data from two dozen languages and employs a variety of tools like statistical analysis and information theory in order to provide a context for understanding the defectiveness of *pobedit'*.

Introductory chapter 1 poses the question: Are paradigm gaps random anomalies, epiphenomena, or normal morphological objects? They are anomalies when they are generated by the regular rules of inflection but then must be specified [-lexical insertion] to prevent their occurring in a sentence. They are epiphenomenal when they reflect morphological rule competition, such as the competition between the Russian reflex of /dj/ (in *pobežu) and the Church Slavic reflex (in *pobeždu). The epiphenomena explanation could have been pursued further. The same competition between Russian ž and Church Slavic žd is seen in the nonoccurring imperfective *pobeživat' and the standard imperfective pobeždať, which shows that the Church Slavic reflex, although acceptable in derivation, is not acceptable in inflection (or no longer acceptable: Pushkin had straždut as the 3pl. of stradat' 'suffer', but it has been replaced by stradajut). Sims rejects these two options and throughout the book repeatedly argues that such gaps are "normal morphological objects" (209) and that inflectional defectiveness is "a systemic variant of normal inflectional structure" (11).

In chapter 2 Sims defines inflectional defectiveness and evaluates candidates for it. In the Yimas sentence *taŋatpul* 'You didn't hit me', the absence of *ma* 'you' is not a gap because the sentence is well formed and interpreted as having a second-person singular subject. ("This is thus an example of zero expression of the nominative, which is not to be confused with lack of expression" [32]) "Inasmuch as [*taŋatpul*] is a well-formed sentence and the ineffability requirement of the definition is thus not met, this does" [surely the author

^{*} The Review Editor's comments on earlier versions of this review led to numerous improvements.

meant to write "does not"] "qualify as an example of inflectional defectiveness according to the criteria employed here" (32). The same goes for $On - vra\check{c}$ 'He is a doctor', which is fully effable, so the zero copula of byt' does not constitute a paradigm gap.

Sims says Ja kupila čto bylo v magazine 'I bought what was in the store' is grammatical because čto "exhibits nominative-accusative syncretism [and] is thus able to simultaneously fulfill the requirement of the matrix verb for an accusative subject, and of the subordinate clause verb for a nominative subject" (29–30). Compare the ungrammaticality of Ja ne mogla ponravit'sja *komu/*kogo on nenavidit 'I could not please the one whom he hates', which she ascribes to the lack of dative-accusative syncretism. But all the first sentence shows is that a relative clause's pronominal antecedent is sometimes omitted, as it is in Mne nužno čem pisat' 'I need something to write with', which cannot be considered a case of accusative-instrumental syncretism. The pronominal antecedent that makes Sims's sentence grammatical—Ja ne mogla ponravit'sja tomu, kogo on nenavidit—is the dative of tot, the antecedent of the relative clause, not the dummy to, which precedes a complement clause, for example, in Ja uznala i to, kogo on nenavidit 'I also found out who(m) he hates'.

Sims asks "whether there is an empirically grounded distinction between periphrasis and defectiveness" (38), which I take to mean, Can defectiveness in a paradigm be repaired by periphrasis? At issue is the perfect passive in Latin, where corresponding to the present passive laudor 'I am praised' we have the periphrastic perfect passive laudātus sum. Sims deliberates whether laudātus sum pertains to morphology or to syntax. It is syntactic in consisting of two distinct, wordlike units, morphological in that "it encodes independently motivated morphological features and stands in paradigmatic contrast with synthetic forms" (39). "Also," she continues, "tense and mood cannot be doled out to either of the two parts of the construction; these values are necessarily interpreted as being carried by the construction in its entirely." As to how laudātus sum is formally related to laudāre, one possibility Sims mentions is Distributed Morphology, where "constituent structure is manipulated postsyntactically but before vocabulary insertion so that a given set of morphosyntactic values surfaces sometimes synthetically and sometimes periphrastically" (41). Sims mentions several other approaches but does not commit to one. She concludes that the paradigm of *laudāre* is not defective.

In chapter 3 Sims discusses the causes of inflectional defectiveness. They can stem from semantics/pragmatics, as the lack of a vocative form of nouns denoting inanimates; from phonology, as the impossibility of the genitive -s with Swedish nouns ending in a sibilant; from morphology, as when the singular forms of *abolir* 'abolish' are defective ("a way to avoid a stylistic incongruity between the native Spanish patterns of alternation and the learned, borrowed nature of the defective lexemes" (67); the same incongruity as in *pobežu?)—or from morphosyntactic structure, as with the defective beware

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with no 3rd sg. form (no *John bewares of the dog). She ends the chapter down-playing causative factors and proposing a complex-system approach to inflectional defectiveness.

The main topic of chapter 4 is the interaction of defectiveness and syncretism. Being mainly interested in Russian, my eye was caught by what Sims presents as a case of defectiveness overriding syncretism. The accusative plural of animate nouns in Russian is known to be syncretic with the genitive plural (Oni ljubjat/bojatsja svoix žën 'They love/fear their wives'). But the genitive plural of end-stressed feminine nouns is sometimes problematic, as Sims illustrates with Zoščenko's short story "The Poker". (Needing to say 'five pokers', the characters in the story have a problem with gen. pl. kočerëg.) For the dozen animate end-stressed feminine nouns Sims lists (85), such as kumá 'godmother' and kargá 'crow, hag', the Orfoèpičeskij slovar' russkogo jazyka says that the genitive plural is "not used" or is "difficult," which should apply also to the accusative plural. And yet, on the authority of Andrej Zaliznjak, Sims says kargá is defective in the genitive plural but not in the accusative plural. Her "own, informal survey of Russian speakers also suggests that the genitive plural is perceived as more problematic than the syncretic accusative plural form" (85). If so, this would indeed be a case of the defectiveness of gen. pl. *karg overriding accusative-genitive syncretism. However, I find it hard to believe there are Russian speakers who accept Oni ljubjat svoix kum 'They love their godmothers' with the accusative but reject Oni bojatsja svoix kum 'They fear their godmothers' with the genitive. In the case of kargá, I wonder if the partly homophonous inanimate kárga 'forest swamp', which has the expected acc. pl. kárgi and gen. pl. karg, might not have confused the issue. Also discussed in the chapter are other interactions of defectiveness and syncretism.

Chapters 5 and 6 are mainly concerned with nouns in Modern Greek. But first Sims—an adherent of word-and-paradigm morphology—makes a case against morpheme morphology, as follows. She draws up a table of three lexemes, A, B, and C, which with three morphosyntactic values select nine endings (136). To make this less abstract, let A, B, and C be the o-declension noun /stol/, the a-declension noun /žen/, and the i-declension noun /kost/, respectively, and let the morphosyntactic values be nominative singular, genitive singular, and instrumental singular, so that the o-declension endings are $|\mathcal{O}|$, |a|, and |om|, the a-declension endings are |a|, |a|, and |a|, and |a|, |a|, and |a|. Sims comments: "This principle

¹ Some additional points regarding Russian. The stylistic label *zatrud*. 'difficult' expands to *zatrudnitel'no*, not **zatrudneetsja* (2, fn. 3). *Zatmit'* 'darken' does not have a 1sg. gap (4): *zatmlju* is attested. Čaša čaju, if ever uttered, would mean 'a chalice of tea', not 'a cup of tea' (90). *Verit'sja* means 'be believed', not '(cause to) believe' (214). Sims correctly notes that the expected 1sg. of čtit' 'honor' would be *čču and comments "we still have to wonder why no repair strategy applies to ČTIT''' (217). There is a repair strategy: a readjustment rule deletes the theme vowel in /čt–i–u/ to yield čtu.

for matching stems to exponents seems initially to be efficient and it maximizes economy of storage. However, it has a significant consequence: there is nothing inherent in the principle of stem and affix indexation that captures the generalization that if [/kost/] has suffix $[/\emptyset/]$ for [nominative singular], it will also have [/i/ and /ju/] for [genitive singular and instrumental singular], and vice versa. The fact that inflectional exponents exhibit dependencies (occurring in sets that form inflection classes) is reduced to the coincidence of having the same index value" (136). But what is fact (phenomenon) and what is coincidence (epiphenomenon) is a matter of viewpoint. From a morpheme viewpoint it is fact that an *i*-declension noun in an instrumental singular sentence environment selects the ending /ju/. That it independently selects other endings in other sentence environments could be considered epiphenomenal. Arranging endings in sets that form inflection classes might be useful pedagogically, but in the generation of sentences what matches affixes with stems is indexation. Sims voices the fear that "[i]f inflectional exponents were to combine with stems in a way that was truly independent of other inflectional exponents, the mathematical upper limit on the number of inflection classes would be the product of the number of members in each set of exponents" (possibly thousands in a system with a large number of exponents). This does not happen, because while instr. sg. /ju/, for example, is independent of gen. sg. /i/, they are both indexed as i-declension.

The rest of the chapter Sims devotes to the inflection of the Modern Greek noun in an effort to understand the implicative relations of the paradigm. Its implicative structure is a matter of conditional entropy, which is "a measure of the average amount of uncertainty associated with one element of a system based on knowing another element" (141). That of course depends on what that other element is. If, for example in Russian, the known elements are loc. sg. stole and stene, there is some uncertainty as to nom. sg. stol and stena but less uncertainty if the known elements are instr. sg. stolom and stenoj. Sims focuses on the genitive plural form in Modern Greek. Unless it is defective, it invariably ends in -on, which means it gives no information about the other forms in the paradigm. The question is whether the distribution of genitive plural defectiveness can be explained by the implicative structure of nominal inflection classes. Stress placement has much to do with it, as genitive-plural gaps occur only in nouns that do not stress the final syllable. These ideas are developed in the final two dozen pages of the chapter with the help of three formulas and nine graphs. It is not easy reading.²

A sample sentence: "[Ackerman and Malouf] operationalize inflectional complexity by averaging across individual pairs of paradigm cells[,] and their hypothesis thus does not depend in any fundamental way on the notion of inflection classes as bounded, differentiable entities" (142–43).

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In chapter 6 Sims continues the discussion of Modern Greek nouns and discusses the factors contributing to paradigm gaps, such as a lack of paradigm cohesion and the availability of a prepositional phrase as an alternative to the problematic genitive plural form. She traces the tendency of genitive gaps to be reanalyzed as properties of individual lexemes. This, she says, "is further evidence of a fundamental similarity between defectiveness and other kinds of morphological expression" (180). This accords with the book's main thesis, that instances of inflectional defectiveness are normal morphological objects.

In chapter 7 Sims ponders how Russian speakers, given only negative evidence and sparse data, manage to learn first-person singular paradigm gaps and retain them from one generation to the next. This is all the harder to understand "if the gaps are lexicalized and removed from their historical causes" (224). Over the next 24 pages Sims presents a conceptual model of how this works, using 12 algebraic formulas and 15 graphs. This too is not easy reading.

In chapter 8 Sims gives her claim that paradigm gaps are normal morphological objects its most concrete formulation. She proposes that "irreducible paradigm gaps are essentially allomorphs of abstract morphemes (i.e., sets of morphosyntactic values)" (253). But the value sets {1sg, nonpast} and {3sg, nonpast} are exclusively syntactic; they are morphosyntactic only when realized in *pobežu and pobedit. Further, sets of syntactic features lacking phonetic substance are not morphemes and hence cannot be allomorphs. There is, Sims observes, "a tendency not to think of paradigmatic gaps as a kind of inflectional allomorph that exists in complementary distribution to and in competition with other allomorphs," an analysis, she says, based on "the empirical distributional facts themselves." Those who have this tendency make the "a priori assumption ['not well-founded'] that defectiveness is something wholly different from well-formedness" (257). Having worked through this demanding book, focusing on Russian and thus possibly not doing justice to the breadth and depth of Sims's investigation, I still find the nonoccurrence of *pobežu wholly different from the well-formedness of pobediš', pobedit, pobedim, pobedite, pobedjat.

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