## Book Review

**Stephen C. Levinson**. **2022**. *A Grammar of Yélî Dnye: The Papuan language of Rossel Island*. Pacific Linguistics 666. Berlin, Boston: De Gruyter Mouton. 587 pages. Print ISBN: 978-3-11-073847-6.

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Stephen C. Levinson's *A Grammar of Yélî Dnye* (a.k.a. Yele, Glottocode yele1255) constitutes the most detailed grammar to date of the Papuan (i.e. non-Austronesian) language spoken on Rossel, a 30 km-long island around 300 kms off the eastern end of New Guinea. The grammar, the product of over 20 years of work in the language, thus supersedes the 100-page grammar (sketch?) by James Henderson (Henderson 1995), going way beyond it particularly in its syntactic analysis. The language itself is a veritable treasure trove for linguists, particularly those with a fondness for morphological complexity and its limits, and typologists, with various typologically unusual features like a very large inventory of phonemes, quite robust syntactic ergativity, and frequent lexical expression of various inflectional categories. This grammar is therefore an important contribution to linguistic description in Papua and worldwide, and Yélî itself a testament to what the human brain can engineer without even trying.

As is the case with many other contemporary grammars (see Mosel 2006), Levinson's grammar of Yélî is organized in ascending order: starting with phonology and finishing with complex clausal syntax. Prior to the description itself, Levinson describes the climate, geology, (pre)history, economy, and folklore of the island in a lucid and engaging way in the introductory Chapter 1. Among the most interesting facts presented is the isolation of the island (which remained separated from the New Guinea mainland and other islands even during the last glacial maximum), and the fact that human presence on the island is, in all likelihood, extremely old. Levinson argues that this combination of isolation and social stability is responsible for the extraordinary levels of complexity shown by the language. This is in line with well-known claims in the literature on language contact and complexity (Kusters 2003; Lupyan and Dale 2010; Meinhardt et al. 2019; Trudgill 2011).

Phylogenetically, Yélî Dnye has been traditionally considered a language isolate and must remain so according to Levinson. This is so (with currently acceptable methods) despite the various grammatical structural similarities that link the language to South Bougainville ones (e.g. Motuna), and pronominal similarities, which

link it with western New Britain languages (e.g. Anêm). Genetic affinities between populations, an unusual SG+1 pattern of syncretism, and similarities in some pronouns and basic words might in turn point to a connection to the Papuan highlands (Gorokan, Trans New Guinea). Last, typological features like complex distributed exponence (Carroll 2016) could in turn suggest a link to Southern New Guinea (Yam), and various other less unusual traits could point to a northern Australian non-Pama-Nyungan connection. Levinson walks us through all this evidence but is forced to conclude that genetic relations, if they exist, must be too ancient to recover at present. Much less uncertain are the borrowings and contact-related influences from Austronesian (maybe from Proto-Oceanic itself) that he also examines.

After this initial introduction to the language, the grammar contains various largely theoretical discussions in Chapter 2, most notably around the phenomenon/notion of 'distributed exponence', and the reason to prefer, in Yélî, a Gestalt approach to form-function (i.e. a recognition of whole words as the basic unit of morphology), rather than a morphemic one. These disquisitions, although somewhat unusual in a descriptive grammar, are not out of place here,[1] because they provide necessary justifications of the overall approach to glossing and presentation of data that Levinson adopts, and which seem sensible given the extreme descriptive challenges that the language presents, particularly in its verbal complex. A preverbal clitic, the verb root, and a postverbal clitic all partake in the cumulative signaling of subject and object person-number, and tense, aspect, and mood. Individually, however, they are usually underspecified, or ambiguous, in multiple different and unpredictable ways that make a morphosyntactic characterization of any of these three morphs on their own not very enlightening.

Chapter 3 focuses on the astonishing phonological complexity of the language. Some of Yélî's phonemes are found nowhere else on earth (coarticulated labial-alveolars and labial-postalveolars), or only in a few other languages (e.g. post-nasalized stops). The very large inventory of phonemic distinctions (34 vowels, 56 consonants) is supported with phonetic evidence, and a phonotactics subsection also illustrates trends and restrictions on the occurrence of different sounds. We learn, for example, that the second consonant of disyllabic (i.e. C1VC2V) words tends to come from a small subset of the language's phonemes, mostly simple segments, rather than from the numerous complex ones (i.e. double-articulated, pre- or post-nasalized, or palatalized) present in Yélî. Vowels show a similar trend, with long and nasal vowels appearing only seldom in syllables after the initial one, which tends to be the one receiving primary stress.

Chapter 4 describes Yélî word classes and its main categories: nominals, adjectives, adverbs, particles, and verbs, the latter being the most complex one. At the

1 See Genetti (2014) for the role of argumentation in grammar writing.

beginning of this section (p. 80), Levinson tells us that Yélî's "morphology is atrophied" because the language makes extensive use of cumulative verbal clitics and lexicalization (i.e. suppletion to convey inflectional values, most notably transitivity, mood, and aspect), rather than separative morphology. This might be an unusual way to describe the situation, given that there is certainly morphology (i.e. "partial resemblances in form and meaning", as defined by Haspelmath and Sims 2010:2) within the clitics, and given that suppletion is one of the most extensively explored morphological phenomena across languages (e.g. Corbett 2007). The language, I would say, is especially interesting for "hardcore" morphologists, given its baroque relationships between form and meaning, often structured along morphomic lines (Aronoff 1994; Herce 2023) by which a heterogeneous set of values or meanings (i.e. an unnatural class) shares the same morphological realization. Although to avoid a break with previous literature on the language these morphomic classes are usually given labels which appear to hint at well-defined semantic properties (e.g. 'unspecified' vs 'specified' on page 82, or 'polyfocal' vs 'monofocal', e.g. on page 36), Levinson specifically warns against this interpretation (page 81–82): "Nouns occur in potentially two forms, unspecified and specified (this is Henderson's 1995 terminology, which does not correlate with the semantic distinction specific/non-specific)." Some of these morphomic structures are analyzed as directional syncretisms or take-overs (Wunderlich 2004). One, for example, involves the use of the same morphological markings in the Remote past (both positive and negative) and in the Proximal negative. This is described by Levinson (p. 128) as "a special feature of negation, which systematically shifts remote inflections/roots into proximal tenses in negative contexts". Other patterns involve inflection class distinctions. One involves verbs taking a special root, rather than the regular enclitic, in the third singular remote past. Another involves deponency, either through the use in the SINGULAR of what are elsewhere DUAL enclitic markers, or through the compulsory inflection of some verbs (66 in his database of 342) with what is a 'hither' particle in other verbs.

Chapter 5 is devoted to the exploration of the noun phrase and makes extensive use of grammatical versus ungrammatical examples to probe the limits of the omission of different elements: determiners, nouns, adjectives, classifiers, quantifiers, and number and case markers. The conclusion is that "just about any element other than modifying adjectives or nominals can stand alone for the whole phrase" (p. 150). While the relative order of elements within the noun phrase (NP) is rigid (the order in which they have been named, i.e. determiners, nouns, adjectives, classifiers, quantifiers, and number and case markers), NPs can be moved quite freely within the sentence. This is possible partially due to the use of case markers, which, keeping up with the overall "genius of the language" (see Schlaps 2004), syncretize different values in different numbers.

Chapter 6 deals with the verb complex in detail. Given the number of feature-values involved, there are around 8,000 different grammatical values to be expressed by the largely cumulative PROCLITICS. Around 1,000 of these are actually distinguished with morphologically different forms. The unpredictability with which values and formatives cumulate into morphologically unpredictable or unanalyzable forms, combine compositionally or agglutinatively, or syncretize, is extraordinary. ENCLITICS, although they are marginally simpler, are (dis)organized in the same way, thus adding an orthogonal layer of complexity to the system. Levinson makes substantial headway in our understanding of this extraordinary inflectional system, while at the same time acknowledging his imperfect understanding of many areas. In his own words, the "full description of all of this will await a native-speaker linguist" (p. 178).

Chapter 7 provides an in-depth discussion about the syntax of imperatives, questions, nominal and adjectival predicates, existentials and locatives, reflexives and reciprocals, among other topics. Syntax does not fall far behind morphology and phonology in its complexity. The reader might be surprised to know, for example, that to say 'he didn't want to go', the language requires one to use an experiential construction, with the word 'desire' as the subject, "followed by a direct quote always (except with 2nd person subjects) in the first person with adjusted tense" (i.e. lit. 'desire to him was not standing: I went') (p. 306). In a similarly complex way, Yélî uses a mix of transitive and intransitive properties in the encoding of reciprocity, with agent NPs lacking the otherwise expected ergative case clitic, incorporation of a noun (see e.g. Evans 2008:50) that signals the reciprocal meaning (cf. Basque *elkar*), and an intransitive-like inflection of the clitics in the continuous aspect and a singular subject with 3rd person object inflection of clitics in the punctual aspect. These are merely two of very many possible examples to illustrate the syntactic complexity of the language, which is laboriously captured by Levinson.

Chapter 8 deals with complex sentences. Levinson explains how the language handles relativization, conditionals, counterfactuals, quotations and reported speech, temporal subordination, focus constructions and clefts, and nominalization. For conditionals and counterfactuals, new inflectional clitic paradigms are needed. The discussion is illuminating and clear due to careful explanation of terminological matters. The language has (mostly) internal relative clauses (in the standard terminology of Keenan 1985), and Levinson indicates thoroughly also which noun phrases are (not) relativizable (see Keenan and Comrie 1977). Indicative and counterfactual conditionals are formed in quite different ways; the latter are more frequent. Nominalizations are interesting in relation to syntactic ergativity.

The last four chapters (9 through 12) are shorter than the preceding ones and deal with miscellaneous topics. Chapter 9 deals with syntactic ergativity, which is crosslinguistically extremely rare but quite widespread in Yélî. The systematic treatment of absolutive (i.e. S and O) arguments differently from ergative (A) is

found, however, in intraclausal syntax (e.g. quantifier floating, focus constructions, nominalizations …), and not in interclausal syntax (e.g. coordination). Chapter 10 provides a unified summary-overview of negation in the language and reveals that the expression of negation is also quite complex. Going beyond grammar *per se*, Chapter 11 deals with several lexical fields, some of which are structured in typologically uncommon ways: for example, there is no proper verb for cutting in the language, with lexical distinctions made not by instrument, but according to whether the splitting of an object occurs along or against the grain, or independently of it. The use of positional verbs 'sit/lie', 'stand', and 'hang' is also quite idiosyncratic (partially because they need to be used with any object or abstraction because they are required in existential constructions), and mirrored by dedicated but morphologically unrelated verbs for putting and taking. The rest of Chapter 11 and Chapter 12 finish with cultural and social aspects of the language such as its labeling of the natural world, kinship, special registers and taboos, etc.

Finally, the grammar also includes, as is usually the case, an illustrative (brief) glossed text.

Levinson's grammar is a very welcome and awaited contribution to the documentation of cross-linguistic diversity and complexity. The latter is an aspect of Yélî that the author makes frequent and mostly justified reference to. The language is undeniably extraordinary; so complex, Levinson mentions (pp. 8, 505), that native competence requires an unusually intense and long exposure to be attained compared with most languages. It remains to be seen if/how this claim can be reconciled with the widespread consensus in the L1 acquisition literature that all languages are acquired roughly at the same pace (Cychosz et al. 2019). In recent research (Casillas et al. 2021: 810, predating the publication of this grammar), Levinson and colleagues concluded that Yélî "children's vocal maturity appears on track with norms for typically developing children in many other populations", even in near absence of child-directed speech. In the remainder of this review, I will highlight a few aspects of Levinson's grammar (mostly related to complexity) that I see as limitations of an otherwise extraordinary piece of linguistic scholarship.

The first involves phonological complexity. Given the fact that some of the language's claim to fame includes the unusually large number of phonemic distinctions, it might have been desirable to offer more background (parallel to the morphological discussions in Chapter 2) concerning different analytical decisions of the language's sounds. It is hard to assess, for example, whether some of the language's posited phonemes (in particular some 'complex segments', see Hayes 2008: 55–57; Shaw et al. 2021) could be analyzed as phoneme sequences instead. Levinson does present phonetic evidence in support of his single-phoneme analysis of some complex segments, namely coarticulated and post-nasalized stops, but he does not mention if similar evidence could be produced for pre-nasalized stops, palatalized,

and labialized consonants. Furthermore, minimal pairs are not provided, so the reader is left wondering whether there is a contrast between some/any of these complex segments and a sequence of their individual components. This is unlikely, given that (posited) syllable structure is almost unexceptionally CV and consonant clusters do not occur. Is Levinson's analysis (more phonemic diversity in the first syllable but a widely applicable CV maximal syllable) preferable to an alternative one where the first syllable has a more complex phonotactic structure than other syllables (say CCCV) but the same number of phonemes available? An open discussion of these matters would have helped non-specialists gauge the extent to which analytical preferences are involved in Levinson's analysis of Yélî phonology, and compare Yélî's phonemic inventory to those in other languages.

Regarding morphological complexity, there are two main aspects that make the language extraordinary: the amount of suppletion on the verb's root, and the size and irregularity of inflectional clitic paradigms. Levinson defines (verbal) lexical entries in Yélî as "bundles of roots associated with one meaning and transitivity status" (p. 129). Labile verbs are so scarce, and pairs of verbs differing in transitivity are so unpredictably different from each other, that Levinson decides to define lexemes in this way. However, a lot of suppletion characterizes aspect and mood distinctions as well. As Levinson admits "because most verbs supplete, it is not a trivial process to decide which parts of a verb really belong together" (p. 120). Because of this, drawing lexeme-to-lexeme boundaries is extremely challenging and different choices could dramatically impact the amount of suppletion or irregularity in the system. Given the morphological complexity of Yélî verbs, and the plausibility of alternative analyses, access to Levinson's full database of 342 verb paradigms would be crucial and a great resource to make available in the future. Access to the paradigms (rather than merely to counts and percentages regarding the occurrence of suppletion) would allow others to work on this fascinating system: assessing the impact of different definitions/operationalizations of lexical entries and (full vs partial) suppletion, paradigmatic predictability relations in the language (as per the Paradigm Cell-Filling Problem, see Ackerman et al. 2009; Stump and Finkel 2013), and other issues. As of now, the reader remains uninformed, for example, of which forms in the paradigm tend (not) to share their stem, or if small finer-grained inflectional classes or morphological gangs (like English *cling-clung, sting-stung, snick-snuck*) could be identified, now "hidden" under the broad term 'suppletion'. Some of the forms/paradigms provided (scattered, unfortunately, across the grammar) suggest that a dedicated exploration would almost certainly reveal some regularities. At the very least, it would quantify the amount of lexical storage (i.e. lexicalization) that the language minimally requires, sidestepping Levinson's unexplained operationalization of "suppletion".

Alongside widespread root suppletion, the size and unpredictability of clitic paradigms is the other most salient complex feature of Yélî's verbal morphology. Wordhood and clitichood issues (i.e. the use of a single or multiple clitics for a given value) play a big role in this unpredictability. They seem very prominent in the language, and I believe that they could have been handled more explicitly. I say this only because lots of difficult affix-or-clitic-or-word choices appear to hide at every corner of the grammar but are never explicitly discussed. For example, a continuous aspect negative counterfactual antecedent future/present SECOND plural proclitic is given as *wodaa*, while a continuous aspect negative counterfactual antecedent future/present THIRD plural proclitic is given as *wo daa* (p. 419). Similarly, a continuous aspect negative counterfactual antecedent IMMEDIATE PAST first singular proclitic is given as *wo dî nê*, while a continuous aspect negative counterfactual antecedent FUTURE/PRESENT first singular proclitic is given as *wo dînê*. The latter appears as *wo dî nê* as well in a full-sentence example [461b]. These and comparable cases across the grammar give the impression of some unsystematicity in the orthography which interferes with and distracts from the actual morphological contrasts.

It could be, thus, that some of the reported complexity or unpredictability of the inflectional clitics might result from either inconsistent realization by speakers (i.e. overabundance, see Thornton 2012), from inconsistent identification by Levinson of phonological-word domains, or from the absence of conventions for homogenizing orthographic word breaks in borderline or undecidable cases. In any case, and in a language as complex as Yélî, the uninitiated reader finds it often impossible to tell whether some contrasts, like *wodaa* versus *wo daa* or *wo dî nê* versus *wo dînê* above, are genuine or spurious. In the same way that Levinson justifies his approach to glossing and form-function relations through a dedicated discussion around distributed exponence (Section 2.3), a dedicated discussion of wordhood domains (see e.g. Tallman 2020) and transcription practices would have been most welcome. The chapter (3) presenting the language's sounds includes some information that certainly relates to the identification of phonological words in the language. The section on stress is very brief but informs that two-syllable words are stressed in their first syllable, four-syllable words in the first and third, and three-syllable words in either the first or the second (in the latter if the first syllable lacks an onset or contains a more closed vowel). Levinson also explained that only the first consonant of a word can show the full range of consonantal phonemes, and long and nasal vowels also appear to be more common in the first syllable. These trends might support certain word and/or clitic segmentations over others. However, the information provided on how/whether (any of) these criteria apply to clitic-clitic segmentations is practically nonexistent. Although Levinson calls them "clitics", he mentions (only in passing, on page 170) that they represent "independent

phonological words, which respect various word boundary phenomena". Only two of these are mentioned, however: voicing of /p/ word-internally, and a flap pronunciation of /d/ in the same environment. Regarding stress in clitics, even less information is given, which appears contradictory at times: Levinson mentions on page 30 that the clitics are unstressed, but on page 206 he also mentions that at least some of the times when we get two proclitics, "stress falls on the second (…) element". My impression is that an explicit discussion of the challenges, and the adoption of uniform orthographic conventions, would have helped readers enormously.

I would not like to conclude this review dwelling on criticism, since Levinson's grammar of Yélî is an excellent contribution to our discipline. It cannot be reasonably expected that a single book or individual will solve every aspect of a language (let alone a language like Yélî), and Levinson himself acknowledges quite openly his incomplete understanding of some aspects. Yélî is challenging and fascinating, and its documentation and description constitutes an invaluable contribution to our field. This grammar represents very substantial progress with respect to our previous knowledge (i.e. Henderson 1995) of all aspects of the language. Specific topics have been and will hopefully continue to be explored separately by Levinson (e.g. 2006, 2018), often in collaboration with selected specialists (Casillas et al. 2021, Maddieson and Levinson n.d.). Given the nature of the language, syntacticians and psycholinguists can look forward to experiments that explore the processing of syntactic ergativity. Morphologists like myself should certainly look forward to the publication of the verbal inflectional database that Levinson refers to through the grammar. Its analysis would almost certainly yield empirical and methodological insights into the interface between lexicon and paradigm. We all shall keep our eyes open.

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