BOOK REVIEW

Variation rolls the dice. A worldwide collage in honour of Salikoko S. Mufwene. eds. Enoch Oladé Aboh & Cécil B. Vigouroux (= *Contact Language Library 59*). Amsterdam: John Benjamins, 2021. Pp. xiv + 350. 🔶

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The phrase "rolling the dice" alludes to a gesture with an unpredictable outcome. It is not a conventional metaphor for a scientific theory: theories lay a claim to be able to illuminate regularities, not just uncover accidental occurrences. They rely on evidence of patterns as a basis for predictions about the course of potential events.

If causal correlations can be identified, then the model has not just predictive but also explanatory power. For a theory to insinuate that variation leads to unpredictable outcomes is a bold way of challenging not just prevailing categories and ontologies, but also the very epistemology on which they rest.

In that light, this book is perhaps not quite as bold as the title might suggest. It is mainly a collection of descriptive case studies of language contact from various parts of the world. The chapters are, however, enveloped by an introductory contribution from the editors and an afterword featuring a conversation between Salikoko Mufwene and Michel DeGraff ("The restructuring of Salikoko Mufwene through competition and selection," pp. 307–325). Together these two chapters frame the volume within a decolonizing critique of traditional theorizing in linguistics. There is reference to the need to "demystify" the view that creoles can be defined based on their structural features, and to counter the idea that they are somehow aberrations or deviations. There is allusion to tensions between "minoritized scholars and disenfranchised thinkers" on the one hand and "scholars from the white middle class" on the other. There is a call for an intellectual insurgency that will bring about a "uniformitarian approach" to language in which the same explicative parameters are applied to creoles and all other instances of language change.

While acknowledging that challenge, the authors of the individual chapters are generally somewhat more reserved. I will discuss the stance that contributors take in regard to four key themes that together make up the book's agenda: the language ecology framework, the role of idiolects, feature selection, and the parameters used to identify creoles.

Language ecology

Ecology is the study of the relationship between organisms and their environment. Its key dimensions are the organisms themselves, their appearance as populations, and the existence of communities where different populations co-exist. Common themes include adjustments to environmental variation, the evolution of populations and diversity of species, and interactions and competition among species. The study of ecosystems seeks to understand, explain and predict what will happen to an organism, a population, or a community under different circumstances (see Begon, Townsend & Harper 2021: xii; cf. Bowman & Hacker 2023).

In linguistics, by analogy Haugen (1972) described the ecology of language as the study of the relationship between language and its environment, emphasizing that language is not an abstract system of structures but one embedded into social interaction. Environment, for Haugen, constituted not the physical setting but the social practices and attitudes that shape language use. By analogy to organisms, language can be seen as having a life and a death, and as impacted by interactions with other languages within a community.

Language ecology is a key theme in Salikoko Mufwene's work (cf. Mufwene 2001) and it is often mentioned in the chapters. Lisa Lim and Umberto Ansaldo frame their discussion of the post-vernacular use of a Creole Malay variety in what they call an "ecology paradigm" ("Foundings and future. How to live like a Peranakan in the post-digital ecology," pp. 243–267). The "immediate current ecology" represents the contemporary social environment. The conditions set by an era of technological resources and practices are labelled "post-digital experience ecology." By analogy, this is the environment that is external to organisms. Ecology can also refer to the relations between organisms or populations in the community. Gillian Sankoff offers insights into the management of multilingual repertoires in contemporary New Guinea ("A local history of Tok Pisin. Language contact in Papua New Guinea," pp. 57–80). She alludes to "the linguistic ecology on the ground" as the "social grounding" of language. This, she explains, entails decisions that people take about which language to use and which new languages to acquire (and sometimes to abandon).

Yet a further angle on ecology alludes more directly to the potential for change and evolution. George Daniel Véronique uses the *ecology* term in passing with reference to the inventory of languages spoken by the founder generation of French Creoles, suggesting that these were the building blocks from which new language varieties emerged ("Building grammar in the early stages of development of French Creoles: insights from Second Language Acquisition," pp. 211–242). Nour Efrat-Kowalsky mentions "a given ecology" with reference to a particular language acquisition setting ("Learnability and ecological factors as motivators of

language change," pp 289–306). Marlyse Baptista discusses a lexical survey in the Cape Verdean islands that shows considerable variation in phonology and partly in lexicon both among communities and within them ("Reflections on Darwin's natural selection: a lens on variation, competition and change," pp. 191–210). She mentions ecology with reference to an historically underlying feature pool where variants compete – some are selected while others are eliminated.

Ecology thus emerges as a wholesale understanding of the social context of language, not unlike the way it was envisaged by Haugen, yet with a tendency to sharpen the focus on the evolution of languages as quasi-organisms through an evolutionary process of feature selection.

However, a precise analogy to the components of biological ecosystems – organisms, species, populations, communities and the physical environment – remains somewhat elusive. The impression is that "language ecology" is as much a pre-theoretical concept as it is a paradigm. It acknowledges a broader discussion context where there is interest in the dynamics of multilingualism and power relations among speaker groups. This is apparent in the liberty that authors take to use the concept rather freely with reference to diverse aspects of language development.

Idiolects

The analogy to organisms is applied not just to languages but also to individual users of language. It accounts for the true locus of multilingualism: It is the user, not just the social environment, that is multilingual. It follows that the unit of analysis that is analogous to the biological organism is not the "named language" within its socially constructed boundaries, but rather what Matras calls the individual's "repertoire" of linguistic features (2009/2020). In the context of the language ecology framework, the individual is also the locus of language change and so also the principal locus for the emergence of new language varieties as, initially, idiolects.

Liqin Zhang, Franz Manni, Ray Fabri and John Nerbonne reiterate Mufwene's (2001) position that the process of acquisition is not a direct transmission from parent to child but an active construction of an idiolect by the child ("Detecting loan words computationally," pp 269–288). When learners are exposed to variation in multilingual societies, they select features among many options. Presenting a structural overview of Light Walpiri, Carmel O'Shannessy alludes to the creativity of children who replicate a mixed baby speech pattern from their parents, turning it into the default form of family communication alongside other languages used within and outside the home including Walpiri,

English, and Kriol ("Conventionalized creativity in the emergence of a mixed language – A case study of Light Walpiri," pp 81–104). Vivien Dunn, Felicity Meakins and Cassandra Algy argue that an intergenerational shift is taking place among speakers of Gurindji Kriol, another Australian contact language ("Acquisition or shift? Interpreting variation in Gurindji children's expression of spatial relations," pp 105–131). While adults show a preference for the use of cardinal expressions that are derived from the ancestral language Gurindji (e.g. "the tree is on the east side of the man"), the younger generation of users depend more strongly on landmark expressions (e.g. "the tree is on the church side"). The distribution by age groups rules out an interim acquisition stage. It points instead to different generational preferences, and so to language change. The authors argue that the trigger might be the fragmentation of the earlier system through decreasing linguistic knowledge of the north-south axis, while the east-west axis is more strongly preserved by interpreting the sun as a landmark. Other landmarks are then introduced to fill the gap in the paradigm. The authors argue that this represents a shift in terminology but that the resulting system and its conceptualisation of space remain largely geocentric. It follows that contact situations can give rise to new structures that are internally creative, not just extracted from the diverse pool of features that users are exposed to in the input they receive in childhood.

Feature pools

Referring to work by Mufwene, Nour Efrat-Kowalsky describes how language acquisition is a process by which a unique idiolect is created through competition and selection of features from inputs by different interlocutors. Here we return to the question of the model's predictive power: Can we anticipate which properties of linguistic features are likely to strengthen their chances of selection and survival?

One answer is that features from a variety of different sources can reinforce one another when they are similar. This is referred to as the favouring of "converging features in a given ecology" (p. 191). Pieter Muysken's chapter, published posthumously, presents an inventory of constructions in Quechua varieties that appear to have been acquired as a result of convergent processes ("Substrate influence in Northern Quechua languages," pp. 133–160). They include the merger of nominal cases, simplification of consonant phoneme oppositions, and the emergence of a desiderative mood. The case for convergence is argued to be stronger when several of the potential contact languages display a similar kind of construction.

A further facilitating factor is learnability. Efrat-Kowalsky examines the use of the Dutch definite article on Twitter, correlating it with user profiles (which

one might consider a proxy for the environmental aspects of the ecosystem). She finds that the common gender article *de* is often generalized. She suggests that the distribution rule for this form is easier to acquire compared to that of the neuter counterpart *het* which has to be acquired along with specific words. She concludes that feature selection is conditioned by dominance (the statistical frequency during input), ecological factors (the role of a feature in marking identity, arising from its relation to population structures and social history), as well as learnability. The author makes a point of emphasizing that ecological factors alone do not explain the process of selection and spread (p. 303).

Carmel O'Shannessy returns us to ecological factors. She alludes to "signalling group identity" (p. 83) when suggesting that Light Walpiri emerged when parents using baby talk inserted into their Walpiri speech Kriol finite verb forms along with pronouns. The author does not elaborate much on what exactly is meant by "signalling group identity" and why it should be achieved through this particular structural pattern of mixing.

On the latter, one might consider that the finite verb as the anchor of the predication serves as a kind of citation that mimics the enunciation of an utterance in those settings where Kriol is used. In a way, it imports an impression of Kriol-speaking settings into family interaction in Walpiri. Structurally, the proclitic pronoun is part of the finite verb schema in English-based varieties, which explains the symbiotic combination of what otherwise appear to be two separate word classes replicated from Kriol. As to the pragmatic motivation, one could propose that the driving force might have been the symbolism of initiating the predication in Kriol, which carried a performative message in regard to aspirations for the children's futures (cf. Matras 2021). One might regard the consistency of such performative mixing by the founder generation as a way of holistically and creatively embracing the linguistic ecology (in the sense of available options and their contextual meanings), leading to the conventionalization of new templates of utterance formation.

Bettina Migge illustrates how a pool of linguistic resources is drawn upon to recruit clause coordinating elements from a variety of languages that played a role in the formation period of two Maroon Creoles on Surinamese plantations in the eighteenth century ("Coordination in the Suriname Creoles: Comparing Nenge and Matawai," pp. 161–189). It is interesting that there is no general carry-over of the full inventory from a single lexifier language. The particles *anga* "with, and" and *soseefi* "thus, also" are from English "along" and "so self," respectively, while, *en* "and" and *da* "then" are from Dutch *en* and *dan*. Converging features include *efu* or *ofu* for "or," which are said to combine English "if" and Dutch *of* "or," and *ma* "but," argued to represent Dutch *maar* and Portuguese *ma*, both "but." (The form *ku* "and" is explained as a combination of Portuguese *com*

"with" and Fongbe *ku*; the latter, however, is not glossed and I was unable to find its meaning.)

The author alludes to a hierarchy of semantic-pragmatic meanings in the transfer of forms from the historical input languages: For NP coordinators, new forms emerge from the comitative preposition "with," while forms expressing similarity are derived from deictic-reflexive words. On the other hand, forms that express succession of events ("then") are continued from one or more of the contributing languages, while particles with the original meaning of modality condition and disjunction are used for adversative and disjunctive functions. It seems therefore that feature pool selection is also sensitive to semantic-pragmatic functions, displaying in creole formation at least some of the parameters that are also found in universal hierarchies of borrowing in situations that give rise to contact-induced change but do not involve creoles (cf. Matras 1998, 2009/2020). It seems, then, that the dice roll partly in a predictable direction.

Creoles as language type

If we pursue a uniformitarian approach in which the same explicative parameters are applied to creoles and all other instances of language change, rejecting proposals that creoles are exceptional, then what are the criteria by which we label some languages as "creoles" but not others?

Zhang, Manni, Fabri and Nerbonne understand the evolutionary perspective as implying that in a reduced population of speakers in social isolation, learners must select from a reduced feature pool; this is an analogy to the notion of the founder effect in genetics. At the same time, the multilingual ecology of pidgin and creole languages means that it is "only natural" for their speakers to adopt features from different languages (p. 271). However, this begs the question why languages such as Amish (Pennsylvania German), Turoyo, Circassian or Romani are not considered creoles.

George Daniel Véronique examines similarities between creole formation and second language acquisition. They include the use of uninflected verbs, the discursive expression of temporality, the initial use of negation at the sentential rather than predication level and the early use of presentational and modal expressions. The similarities lead him to conclude that the founder generation of creole users were second language learners; in other words, rather than merely recruit features from an overall feature pool, they had a particular target language. The author rejects the possibility that creoles represent an interlanguage stage, leaving open the question why creoles seemingly resemble the early stages in second language acquisition. Implicitly, the similarities are attributed wholesale to

the ecology (understood as the inventory of languages spoken by the founder gen-eration) and so to factors such as substrate influences, though there is no explicit discussion of such factors.

William Croft introduces a typology that seeks to accommodate the notion of ecology by classifying the social functionality of language varieties wholesale ("A sociolinguistic typology of languages in contact," pp 23–56). There is firstly an underlying assumption that languages belong to population "groups." Pidgins are considered "exoteric" languages used to communicate outside the group while creoles are classified as "neogenic" languages associated with the formation of new communities. Croft acknowledges that in creolization most of what he calls "sub-stance linguemes" (linguistic "matter" in the terms used in Matras 2009/2020) derive from the lexifier language of the dominant community. This is thus a struc-tural characterization of creoles – for which, however, no explanation is offered. Gillian Sankoff's chapter could bring some resolution, discussing the formation of Tok Pisin as a historical shift. Its forerunner was a lingua franca used as a trade language to communicate with outsiders. As a pidgin it spread during the phase of exploitation colonization, acquiring a variety of localized substrate influences. It then underwent "indigenization" as a default form of communication during post-colonial urbanization.

Put together, the chapters that address creole formation suggest an initial motivation to utilize a lingua franca oriented towards a target language and repli-cating salient features of lexicon, followed by conventionalization as the in-group language of a tight-knit community with diverse language backgrounds during which (substrate-like) features, potentially from a wide variety of sources, are inte-grated. At this point in the process, convergence potential, distribution and fre-quency saliency, and learnability act as facilitating factors. In principle, then, the individual processes that operate in creole formation are also found in other set-tings; they are not exceptional. Rather, it is the particular combination of cir-cumstances that is, if not exceptional, distinctive of creoles, making the structural similarities among them beyond accidental.

The predictability of a roll of the dice

To what extent do the chapters deliver a coherent message? First, they see value in the ecology metaphor. The linguistic ecosystem is one in which organisms evolve as species, in which they constitute populations, and in which communities are internally and externally diverse. Together the chapters argue that variation in societal attitudes and circumstances (the "environment" in which organisms live) will shift the balance among features that are selected, bringing about a new "pop-

ulation." Implicitly, creoles are viewed as the product of a certain type of environment: colonial settings that lead to the emergence of new communities of multiple backgrounds – a multitude of populations in an altered ecosystem – which in turn gives rise to a shift in the selection of features – a change in the interaction of organisms. That sets apart the creoles discussed in the volume from other contact settings like Light Walpiri and Gurindji Kriol, and the varieties of Quechua.

The model shies away from predicting the outcome of these changes given the declared disassociation between creoles and a predefined structural type. That makes it something of a challenge to explain structural similarities among the languages commonly accepted as creoles, despite that there seems to be little debate within the volume about what does and does not constitute a creole.

One way forward might be to give attention to two components that do not take center stage in most of the chapters. The first is the communicative practices that users engage in. There is some allusion in the chapters to identity-flagging, for example through conscious mixing, as the background for mixed languages, and of targeting a second language as the background for creoles. A more intricate and systematic mapping of such practices – the communicative action routines for which language is used – might help fashion a model through which one could foresee the direction of development.

The second is the internal functions of individual features – units of linguistic structure, or linguemes *à la* Croft – and the mental processing operations that they trigger. Explanatory models have partly been able to build on such mapping when examining other contact settings, with insights into tentative borrowing hierarchies (Matras 1998, 2009/2020). Correlations with semantic-pragmatic functions offer a clue. Perhaps we can make the uniformitarian approach work in both directions and introduce internal feature composition and function – the organism's genome, so to speak – as a further dimension when considering selection. We might find that rolling the dice is more predictable than we have supposed.

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