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Publication date

2024

Published in

Linguistic Approaches to Bilingualism

[Link to publication](#)

Citation for published version (APA):

Aboh, E. O., & Parafita-Couto, M. D. C. (2024). Modelling Multilingual Ecologies Beyond The L1-L2 Binary. *Linguistic Approaches to Bilingualism*.

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Modelling multilingual ecologies beyond the L1-L2 Binary

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Introduction

Lohndal and Putnam's (2024, L&P henceforth) paper sets out to demonstrate the fundamental role of features and their exponence in descriptive and theoretical models of monolingual, and by extension, bilingual/multilingual speakers. In so doing, they argue for a uniformitarian approach whereby no cognitive process unique to a specific learner's profile (e.g., L2) is needed (or even desirable) in a theory of multilingual language practices and the mental grammars of multilingual speakers. Though L&P did not refer to sign languages, we assume that their model would extend to learners of sign languages as well. Our comments here therefore hold for learners of language in general, that is, speaker/signer-learners (SLs). L&P demonstrate that theoretical premises and analytic tools that are evoked to account for presumably monolingual SLs' mental grammars should suffice to account for multilingual speech including code-switching/mixing (CSCM) (i.e., the ability of certain multilinguals to integrate linguistic elements from their different languages into a single utterance), and more generally the mental grammars of multilinguals. The term 'multilingual' here refers to both speakers and/or signers of different languages.

Exoskeletal approaches in modelling mental grammars

L&P made a very good case in showing that *Exoskeletal approaches* offer a sound theoretical cadre to model human (multilingual) mental grammars. Exoskeletal approaches involve a family of syntax-driven models in which features (and how they are spelled-out) play a primary role: the meaning of a linguistic string results from (i) its structural make-up determined by bundles of features, and (ii) how this structure is spelled-out by specific morphemes taking into account how these are integrated in the lexicon and human cognition. These approaches have in

common that syntax computes feature bundles to derive structures in which morphemes are subsequently (i.e., post-syntactically) inserted for spell-out purposes. Therefore, syntactic derivation does not operate on words, that is, pre-established lists of lexemes already ‘assembled’ with distinct feature-bundles in specific languages. Instead, there is a morphological component where exponence and morphophonological operations are captured, and the smallest syntactic unit is assumed to be categoryless roots.

Exoskeletal approaches make the feature (Re)Assembly model superfluous

As L&P show, these approaches have allowed significant advances in the field. For instance, Exoskeletal approaches render obsolete ‘exceptionalist’ hypotheses which are evoked to account for what is perceived as unique of certain SL profiles. This was, for instance, the case in creolistics where various developmental scenarios and learning strategies (e.g., break in transmission, fossilised interlanguage, language mixing, etc.) were advanced to account for the perceived creole structural type (cf. Mufwene, 2001; DeGraff, 2005; Aboh, 2015 for a critique). In the case at hand, Donna Lardiere developed an approach in terms of Feature (re)Assembly in the late 90s and early 2000s to address questions of variability within and across L2 learners. In terms of such an approach, language learning involves two tasks: (i) the acquisition of feature inventories recruited in a specific language, (ii) morphological competence, which Lardiere (2008) defines as SLs’ knowledge of which exponence maps onto which bundles of features including, e.g., what morphophonological constraints condition the exponence and its distributive properties. This mapping approach posits that learning of syntactic structures and related features may be dissociated from acquisition of their exponence: The two learning tasks need not go hand in hand (even though so-called ‘native’ speakers are assumed to acquire both aspects).

One may observe such dissociations in L2 acquisition, since learners will need to *disassemble* relevant bundles of features and their related exponence in their L1 and *reassemble* them to match with ‘new’ exponence in the L2. The process may lead to various complexifying factors which may relate to delay or difficulty in acquisition, non-target like outputs, as well as apparent variability in L2 discourse. Donna Lardiere’s Feature (re)Assembly model offered an apparent solution to aspects of L2 acquisition (e.g., language transfer and innovations), but L&P show convincingly that such a model of acquisition, unique to L2 acquisition, is undesirable. SLs in general access abstract linguistic features driving the computational system, and there should be no cognitive operation specific to subsequent acquisition or multilingual SLs.

Reconsidering assumptions in Lohndal and Putnam's Approach: Toward a paradigm shift

While we generally agree with L&P's conclusions, we think a major drawback in their rationale, is that it did not follow through its logic, since it presupposed the monolingual base, i.e., L₁ vs L₂, and logically excluded SLs who acquired their languages simultaneously and communities in which the majority of the population is multilingual and CSCM or multilingual discourse is the norm, such as in Central America (for instance in Belize, Balam, 2016) or West Africa (Amuzu & Singler, 2014). By keeping to the L₁-L₂ Binary doctrine, L&P inadvertently lend support to the "mono E-language" approach to linguistic theorising which is common in the field (cf. Toribio, 2017). According to this doctrine, productions of multilinguals are measured against pre-established monolingual language standards (regarded as a common target), and the main theoretical question is whether models proven on assumed monolingual grammars can extend to so-called bilingual/multilingual grammars. We believe the approach should be reversed: Can a model of multilingual speech/sign-grammars subsume monolingual grammars in their variability within and across individual SLs? This, we believe, should be the task of the linguist. Indeed, the proposed demonstrations against dyads involving tutored L₂ learners appear to us to be applicable partially to so-called WEIRD (Western Educated Industrialized Rich Democratic) populations only. The proposal also seems to be inconsistent with an Exoskeletal view in which what matter are syntactic features and how individual speakers link them to specific exponence. Contrary to the authors' view that such a theory is not concerned with issues of learnability, such as, "which combinatorial factors are predicted to be easier or more difficult", we think that one cannot unravel processes underlying multilingual speech and develop an adequate model of language, if one does not know how the relevant syntactic features compete in the varied inputs that individual SLs are exposed to in their respective community networks. This is the stance taken by Aboh (2015, 2020) in his Universal Multilingualism approach based on feature Recombination, Competition, and Selection and by Parafita Couto and colleagues, who underscore the intertwining influence of linguistic factors and community norms in guiding CSCM dynamics (for an overview see Parafita Couto, Greidanus Romanelli & Bellamy, in press; Parafita Couto, Bellamy & Ameka, 2023). This is also the view taken in an ongoing collaborative effort by the two authors of this commentary to investigate multilingual discourse in two multilingual contexts (Belize and Republic of Benin) in which one often encounters combinatorics involving non-tutored learners of more than two languages (i.e., multilingual speakers), as well as language combinations that are typologically different from the

very common studies on Romance and Germanic. Such communities are poorly described in the literature even though they should be the linguist's primary focus. Indeed, most studies on bilingual or multilingual practices to date focus on Western communities in which CSCM is socially disfavoured rather than on communities where multilingual discourse involving CSCM is the norm. In such communities, multilinguals adapt to the communicative demands of their ecology. In our quest to understand this adaptive response, it is necessary to propose an account for how language-internal, cognitive, and external social factors work together. Assuming monolithic competing grammars (L_1/L_2), driven by a no less monolithic syntax, typically associated with notions such as nativeness, target language, dominance, etc., leads to incommensurable theoretical and methodological challenges in such multilingual contexts (for further discussion on these issues see Leivada et al., 2023). Indeed, current syntactic theories cannot accommodate data of multilingual communities for which it cannot be established a priori that the syntactic linguistic features that speakers manipulate derive from pre-identified E-languages (or a Standard common to all members of the community) rather than a combination of different competing communal varieties (cf. Aboh, 2020). Given that the majority of the world lives in such multilingual communities in which labels such as L_1, L_2, \dots, L_{n+1} lack substantial descriptive significance and hardly have any theoretical status, one can argue that these different ecologies in which acquisition takes place, yielding potential differences in multilingual practices such as CSCM, should be the main object of study of linguistic theory. As such, we advocate for a paradigm shift that acknowledges the complexities and interconnectedness of linguistic features, hybridity, community norms, and multilingualism to develop a more holistic understanding of language. The recognition that there are interconnected systems that influence multilingual practices aligns with Bronfenbrenner's (1977) ecological systems theory of human development, which would establish a connection between the understanding of multilingual practices and linguistic development in a multilingual context (see also Titone & Tiv, 2023). To be sure, our criticisms are not against Exoskeletal approaches in general. Instead, we think such models are unique in their capacity in tackling the points we just raised efficiently (at least in a more articulated way than mainstream minimalism) if we abandon common premises of acquisition which conceive of SLs' mental grammars in terms of growth from a "mono"-lingual to "multi"-lingual, and if we take Chomsky's (2005) *three factors in language design* seriously so that models of the human language capacity are not developed in isolation of other factors, e.g., experience, cognition.

Indeed, we commend L&P for their optimism regarding the framework they have introduced, seeing it as a robust foundation for fostering collaboration between theory development and experimental research, specifically in the fields

of psycho- and neurolinguistics. While they do not delve into the practical aspects of how this collaboration would manifest, we eagerly anticipate the future progression of joint research initiatives between formal and experimental linguistics. However, we emphasize that it is also crucial not to underestimate the significance of the sociohistorical context of the communities studied. If we aim to gain a comprehensive understanding of multilingual grammars, it is indeed essential for formal approaches to be informed of insights from all these perspectives. This inclusive approach holds the potential to enhance the depth and breadth of our linguistic inquiries and contribute significantly to the richness of our collective knowledge of multilingual grammars.


Funding


Open Access publication of this article was funded through a Transformative Agreement with Leiden University.


References

- Aboh, E. O. (2015). *The Emergence of Hybrid Grammars: language contact and change*. (Cambridge approaches to language contact). Cambridge University Press.
- Aboh, E. O. (2020). Lessons from neuro-(a)-typical brains: Universal multilingualism, code-mixing, recombination, and executive functions. *Frontiers in Psychology*, 11, 488.
- Amuzu, E. K., & Singler, J. V. (2014). Codeswitching in West Africa. *International Journal of Bilingualism*, 18(4), 329–345.
- Balam, O. (2016). Language use, language change and innovation in Northern Belize contact Spanish. Doctoral dissertation, University of Florida, USA
- Chomsky, N. (2005). Three factors in language design. *Linguistic Inquiry*, 36(1), 1–22. <http://www.jstor.org/stable/4179307>.
- DeGraff, M. (2005). Linguists' most dangerous myth: The fallacy of Creole Exceptionalism. *Language in Society*, 34, 533–591.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32 (7), 513–531.
- Lardiere, D. (2008). Feature-Assembly in Second Language Acquisition. In J. Liceras, H. Zobl & H. Goodluck (Eds.), *The role of formal features in second language acquisition* (pp. 106–140). Lawrence Erlbaum Associates.
- Leivada, E., Rodríguez Ordóñez, I., Parafita Couto, M. C. & Perpiñán, S. (2023). Bilingualism with minority languages: Why searching for unicorn language users does not move us forward. *Applied Psycholinguistics*.
- Lohndal, T., & Putnam, M. T. (2024). The importance of features and exponents: Dissolving feature reassembly. *Linguistic Approaches to Bilingualism*, 14(1).
- Mufwene, S. S. (2001). *The ecology of language evolution*. Cambridge University Press.

Parafita Couto, M. C., Greidanus Romaneli, M. & Bellamy, K. (in press). Code-switching at the interface between language, culture, and cognition. *Lapurдум-Basque Studies Review*. <https://halshs.archives-ouvertes.fr/halshs-03280922/document>

 Parafita Couto, M. C., Bellamy, K., & Ameka, F. (2023). Theoretical linguistic approaches to multilingual code-switching. In J. Cabrelli, A. Chaouch-Orozco, J. González Alonso, S. Pereira Soares, E. Puig-Mayenco, & J. Rothman (Eds.), *The Cambridge Handbook of Third Language Acquisition* (Cambridge Handbooks in Language and Linguistics, pp. 403–436). Cambridge University Press.


 Titone, D., & Tiv, M. (2023). Rethinking multilingual experience through a systems framework of bilingualism. *Bilingualism: Language and Cognition*, 26(1), 1–16.

 Toribio, A. J. (2017). Structural approaches to code-switching: Research then and now. In R. E. V. Lopes, J. Ornelas de Avelar & S. M. L. Cyrino (Eds.) *Romance Languages and Linguistic Theory 12*. Selected papers from the 45th Linguistic Symposium on Romance Languages (LSRL), Campinas, Brazil (pp. 213–233). John Benjamins.

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Publication history

Date received: 8 November 2023

Date accepted: 14 November 2023

Published online: 1 February 2024