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## ‘Units of comparison’ across languages, across time

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Lardiere’s keynote article adverts to a succession of ‘units of comparison’ that have been employed in the study of cross-linguistic differences, including mid-twentieth century structural patterns; generative grammar’s parameters; and within contemporary Minimalism, features. This commentary expands on the idea of units of cross-linguistic comparison, first by developing Lardiere’s observations about recent scholarship, and second by identifying some earlier reflexes of the notion. I close by suggesting that thinking about ‘units of comparison’ across time prepares us to better appreciate a feature-based conceptualization of L2 acquisition, and its likely trajectory.

**Keywords:** history of L2 acquisition, unit of cross-linguistic comparison, features

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### **I Introduction**

Through her analysis of plurality in Korean, Chinese, and English, Lardiere calls attention to some of the steepest and most intriguing challenges faced by modern generative study of second language (L2) acquisition. Those challenges derive from the central role that Minimalism grants to linguistic features. In the framework that Lardiere adopts, the core task of a language learner is to discern the distribution and disposition of features in the target language—features which, assembled in bunches, constitute the L2 functional categories. Differences between L1 and L2 features are the seat of cross-linguistic variation; they are (in Lardiere's words) the essential minimal 'units of comparison' (11) of L1 to L2.

As Lardiere and others recognize, this way of conceptualizing L1 / L2 differences opens up a cascade of unsettled issues. Travis (2008: 44) lists some of them: Where in tree structures are which features associated? When features move, in what contexts do they carry along other material? Do features target XP or  $X^0$ ? In what configurational positions do the morphological realizations of features appear? Lardiere (2ff) adds to the list: How big is the universal inventory of features? What constrains the composition of that inventory? How do L2 learners determine the interpretative effects of features? Can features be dissociated from the categories that subsume them in L1, re-organized into novel clusters, and then re-associated with different L2 categories? To develop the potential of a feature-based conceptualization of L2 acquisition, we need satisfactory answers to at least some of these questions. Lardiere's keynote article demonstrates the difficulties of working within a conceptual landscape where so little can be taken for granted. But she also demonstrates the benefits of pushing forward into this new territory, because doing so opens up insight into the complexities masked behind a

seemingly straightforward feature like ‘[+ / – plural]’. In this sense, her work is at once both sobering and encouraging.

Notwithstanding these uncertainties, Lardiere accepts features as the latest in a series of attempts to define a ‘basic unit of currency for describing differences between languages’ (5). She mentions two earlier attempts. The generative model of L2 acquisition from the late 1980s attributed L1 / L2 differences to different settings of the parameters of universal grammar. Lardiere cites Haegeman (1988), although perhaps Phinney’s (1987) study of pro-drop in L2 Spanish versus L2 English is more prototypical of research that adopted parameter settings as the unit of cross-linguistic comparison. Lardiere cites Lado (1957) as representative of earlier attempts to compare languages on the basis of contrasts in L1 versus L2 structural patterns. What Lado meant by a ‘structural pattern’ ranged broadly over the distribution of phonemes, word order phenomena, and correlations between forms and meanings in syntax, lexis, orthography, and even culture.

My goal in this commentary is to reflect on the notion of a ‘unit of cross-linguistic comparison’, and on what the attested succession of proposed units of comparison tells us about the study of language—in the past, present, and future.

## **II Units of cross-linguistic comparison in historical context**

Lardiere is most concerned with the recent transition from parameter settings as units of L1 / L2 comparison, to features. She treats more lightly the mid-twentieth century identification of structural patterns as basic units of comparison, and even more lightly

the transition from structural patterns to parameter settings. Not surprisingly, on closer inspection the story has many buried complexities. I will highlight two of them.

First, during the half-century on which Lardiere focuses, at least one additional conceptualization of the unit of cross-linguistic comparison intruded between structural patterns and parameter-settings. That unit was phrase structure and transformational rules, as defined in Chomsky's (1957, 1967) early transformational grammar. 1960s transformational grammar emerged after the heyday of American descriptivism, and eventually gave rise to the parameter-setting model in the early 1980s. It was preoccupied with developing a grammatical model for English, at the expense of accounting for cross-linguistic variation (Reibel & Schane 1969: vii). Nevertheless, early transformational grammar did include work like that of Ross (1967), which explored at least in passing some properties of Latin, German, Japanese, and other languages. Its (largely unexamined) assumption was that grammars diverged from each other in their phrase-structure rules, and in the operation of the syntactic component. That is to say, languages could vary in the order they assigned to constituents via phrase structure rules. They could also vary in their inventory of transformational rules; in the constraints they imposed on the input to transformations; and in the order of application of transformations.

Scholars employed phrase structure and transformational rules as units of comparison in the 1960s in diverse ways. Brown and Hanlon (2004 / 1970) and Klima and Bellugi-Klima (1971 / 1966) analyzed L1 data for evidence that child learners adopt a sequence of increasingly elaborated transformational rules. In this sense, Brown and Hanlon, and Klima and Bellugi-Klima, used transformational rules as units of

comparison across stages of acquisition of a single language, rather than across languages. Bar-Adon (1971) analyzed L1 acquisition of Hebrew, employing phrase structure rules and transformations to represent the difference between the adult target language and children's first approximations. Menyuk (1971 / 1963) carried out a similar analysis for older L1 learners of English. Phrase structure and transformational rules also appeared as units of cross-linguistic comparison in research on L2 acquisition and teaching. For example, Wyatt (1966) used phrase structure rules for English and Portuguese as a tool for comparing VPs cross-linguistically, and Di Pietro (1968: 74–75) attributed the contrast between English 'I like tea' and Italian 'Mi piace il tè' to differences in the two languages' statements of the Dative Transformation.

On these grounds, one could augment Lardiere's narration of the recent history of the units of cross-linguistic comparison as follows, in reverse chronological order: features; parameters; phrase structure and transformational rules; structural patterns. But there is no reason to believe the story stops there. A second dimension of buried complexity is that Lardiere's 'basic unit of currency for describing differences between languages' has repeatedly been re-defined, going as far back as we can see. Before Lado compared structural patterns across languages, nineteenth-century historical-comparativists probed cross-linguistic differences by looking for cognate sound-meaning pairs, attested or reconstructed, across languages. This was the essential tool that built the edifice of historical-comparative linguistics. Like American descriptivists, historical comparativists looked for patterns of similarity and difference across languages. But while Lado's unit of comparison ranged over the whole synchronic surface of language (and extended to orthography and culture), historical-comparative linguistics prioritized

the sound properties of words and trafficked in data from different time periods. For example, whereas Lado (1957: 73–74) pointed out differences and similarities in modern Spanish and modern English in the syntax of questions, Grassmann (1967 / 1863: 123) pointed out differences and similarities in words from various languages, over various centuries, which used the initial consonant cluster *dr-* to communicate meanings like ‘ghost’, ‘monster’, or ‘evil spirit’. Going back further in time, one prominent and long-lived unit of comparison was the set of eight classical *partes orationis* (‘parts of speech’; in one influential inventory: noun, pronoun, verb, adverb, participle, conjunction, preposition, interjection). The *partes orationis* organized fourth-century comparison of Latin to Greek, and served as the key to Roman pedagogical grammars. They also provided a superstructure for medieval Speculative Grammar; grounded both the universal and particular grammars of the Renaissance; and survived intact as a tool for cross-linguistic comparison in seventeenth-century General Grammar, and beyond (Law 2003; Thomas 2004). As a system of units of comparison, the *partes orationis* were employed in cross-linguistic analysis of many sorts, on many bases, serving many theoretical and practical ends. They may well be the most robust and adaptable unit of cross-linguistic comparison in the history of western language science.

### **III What contribution does awareness of the context of modern ‘units of comparison’ make?**

By conceptualizing L2 acquisition as a process of ‘selection and assembly of formal features’ (1), Lardiere commits herself to facing certain challenges, including the ones

that she and that Travis (2008) articulate. Those challenges will have to be met—or abandoned—within the conceptual world that created them. This is to say, knowledge of the units of cross-linguistic comparison employed by nineteenth-century historical-comparativists, or by fourth-century Roman grammarians, does not directly answer contemporary questions such as ‘Do features target XP or X<sup>0</sup>?’ or ‘What constrains the universal inventory of features?’ Nevertheless, it is worthwhile to seek out the answers to those questions while recognizing that Minimalism’s reliance on features constitutes only one of many successive attempts to define a basic unit of cross-linguistic comparison. No matter how alien earlier units of comparison seem in our local context, their existence is informative on several levels.

First, their existence is informative because it helps us avoid over-simplified or mistaken generalizations about the present. Lardiere’s three-stage sketch of shifts from structural patterns, to parameters, to features, might lead one to identify a trend over time in the definition of units of cross-linguistic comparison, from definitions framed in material terms (sounds, words) to ones framed in abstractions (‘INFL’, ‘T’). (And plausibly also a trend from units defined over large-scale domains like sentence structures or the optionality of subjects in tensed clauses, to units defined over ‘smaller’ domains like the features that comprise functional categories—*if* a meaningful definition of ‘large’ versus ‘small’ could be developed.) Lardiere herself makes no such claim, but a reading of her keynote article might lead one to assume that twentieth-century units of cross-linguistic comparison have gradually increased in abstractness with the passage of time. However, adding the contributions of early transformational grammar to the three-stage

sketch disrupts that generalization, since the phrase structure and transformational units of comparison used in the 1960s were already highly abstract.

Second, awareness of the historical context is informative because it calls attention to what is characteristically modern in Minimalism's employment of features. Features themselves have long been used in western language science. Prague School linguist Roman Jakobson's re-analysis of phonemes into sets of binary distinctive features (Jakobson, Fant, & Halle 1952) is probably the direct inspiration for modern generative grammar's formal features. Jakobson *et al.*'s goal was to resolve the sound systems of all language into a finite inventory of two-valued features that admitted no redundancy. Language-specific rules grouped distinctive features into phonemes, and phonemes into characteristic sound patterns. Long before Jakobson, the first-century Roman polymath and grammarian Marcus Terentius Varro also recognized the potential of features as a tool for language analysis. Varro stepped outside the tradition of the *partes orationis* to define four categories of words on the basis of (what we now recognize as) binary features. Varro's categories comprised words with case but not tense; tense but not case; both case and tense; and neither case nor tense (Taylor 1996: 65). He went on to define classes and subclasses within those categories: words inflected for case but not for tense subsumed nominals and articles; articles subsumed the subclasses of definite versus indefinite articles, and so forth. Varro, Jakobson, and modern Minimalism all use features to divide complex phenomena into minimal, mutually exclusive, classes whose higher-order relationships can then be easily represented and manipulated, so that all three of these initiatives bear a family resemblance. Therefore viewing each one in its relation to the others calls attention to

both their particulars and their generalities, in the way that a family portrait simultaneously renders each individual more distinctive and showcases their commonalities. That is to say, what is unique about Minimalist features stands out better against the backdrop of how features have been employed elsewhere.

Third, Lardiere's narration of the transition from parameter-based to feature-based units of cross-linguistic comparison is evocative to anyone familiar with the transition from phrase structure and transformational rules to parameters (Newmeyer 1986). Early transformational grammar's 'basic unit of currency for describing differences between languages' eventually 'exploded' (Lardiere, 5), just as parameters would later 'explode'. That is to say, as transformational rules proliferated they became devalued for lack of formal constraint, eventually losing their purchasing power in the descriptive marketplace. Lardiere depicts parameters as traveling a similar path in the 1990s.

Therefore, among the challenges facing a feature-based account of L2 acquisition, the absence of a basis for constraining the proliferation of features seems more threatening when viewed in the context of the recent past. It is not that history 'repeats itself', but rather that the past helps us understand the present and prepare for the future. Behind Lardiere's keynote article stand 25 years of inquiry into L2 acquisition by contributors to *Second Language Research*, each of whom wrote from a position which, at the time of writing, moved language science forward incrementally. Some of the value of their scholarship was immediately accessible to readers as soon as it was published. But not all. That same scholarship achieves a different order of value as it comes to represent not the fleeting present, but the sustaining and ineluctable past. Lardiere's

work contributes to present-day *Second Language Research*, and will continue to do so even as the journal, and the field, move forward.

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