

Second language syntax?

Sintaxe da segunda língua?

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Resumo: O presente artigo revisa questões naturalmente atribuídas à sintaxe da L2 como processos de influência de L1 na interface SM, como processos morfofonológicos e fonológicos.

Palavras-chave: Sintaxe de L2; Morfofonologia

Abstract: The present work claims that what studies have taken to be L2 syntax can be attributed to L1 influence at the SM interface, to morpho(phono)logy and phonology and a reanalysis of the phenomena is needed.

Keywords: L2 syntax; Morphophonology

By pushing a precise but inadequate formulation to an unacceptable conclusion, we can often expose the exact source of this inadequacy and, consequently, gain a deeper understanding of the linguistic data.

(CHOMSKY, 1957, p. 5)

Is there second language (L2) syntax; that is, can knowledge of a second language be syntactically “accented”? Or does an L2 accent manifest itself entirely and only phonologically, as standard definitions of the concept ‘accent’ would suggest?

Ioup (1984) argued that, in the absence of phonological evidence, an accent is not detectable from errors in the syntax of a person’s L2. This could be seen to follow from the assumption that there is a universal syntax, that all languages have the same hierarchical, unordered syntactic structures, a function of the recursive nature of language – of repeated Merge. The differences among languages would then lie in the ways in which syntactic structures are interpreted (through, for example, linearization or temporal ordering) at the sensorimotor (SM) interface.

However, if we assume that languages do not differ at all syntactically, what are we to make of the considerable amount of research on L2 syntax, both prior to and in a rush since Ioup’s claim? In what follows, I will argue that what has been thought to be L2 syntax should be reanalyzed entirely as the influence of first language (L1)

phonology on L2 knowledge: the result of differences in what and where something is spoken or not spoken. For example, in Mandarin Chinese wh-questions – as in many other languages of the world – wh-phrases are spoken in situ, while in English, they are copied to the edge, eventually spoken at the left edge of the structure – different temporal orderings of what I presume to be the same underlying syntax. Furthermore, in Mandarin Chinese – again as in many other languages – NP {plural} surfaces only in extremely constrained ways as the suffix /-men/ (obligatorily on personal pronouns, for example), while in English the NP plural morpheme is nearly always spoken on the head of an NP, most generally as a derived form of an underlying /s/. In other languages, Brazilian Portuguese – for example, {plural} spreads to every word in an NP that can be pluralized: adjectives and determiners as well as nouns.

What are the consequences of such differences for a Mandarin Chinese speaker’s L2 knowledge of English, or an English speaker’s L2 knowledge of Mandarin Chinese?

It would normally be claimed that these differences between Mandarin Chinese and English are syntactic and morphosyntactic, respectively, but I will argue that they are phonological pure and simple and that it is only in phonology and morphonology that L1 knowledge can “infect” L2 knowledge, phonology here “broadly conceived as the interpretive component that realizes syntactic representations phonologically” (Halle and Marantz 1993:114). Moreover, although the features of morphology and phonology are universal (e.g., the distinctive phonological and morphological features), there is no universal phonology, morphophonology, or morphology in the sense that there is a universal syntax. Thus it is in interpretation at the SM interface that striking and obvious variation among languages is to be found, syntax being fixed for language, thus showing no such variation from language to language.

An understanding of the way in which L1 segmental phonology affects L2 phonology is helpful at this point

Brown (2000) and O’Neil (2002) have argued that adult L2 phonology is constrained by whether a phonological feature is active (i.e., distinctive) in the L1, not – as is generally thought – by whether a particular phoneme is in the phonemic inventory of both the L1 and the L2. For although we tend to think of individual phonemes of a language or its syllables as the building blocks of language, the universal set of articulators and of phonological features and their values are the fundamental ingredients that are bundled together as phonemes. For example, /p/ contrasts with /b/ by virtue of the larynx-bound feature [voice]; with /m/ by the soft-palate-bound feature [nasal]; with /f/ by the articulator-free feature [continuant] – all three sets of phonemes sharing the lips as their primary articulator. Moving to a different articulator (the blade of the tongue), we see that /s/ contrasts with /z/ by the feature [voice]; with /t/ by the articulator-free feature [continuant]; with /q/ by the articulator free feature [strident]; etc.

Each language activates (i.e., makes distinctive) a subset of the universal set of phonological features, and since these subsets will differ from language to language, phonological traps for L2 acquirers lurk in the differences, as is illustrated in the following observations.

For example, if a person’s L1 does not activate the feature [strident] – the feature that distinguishes between members of these two consonant sets in English: e.g., /s/:/q/ and /z/:/l/ – as in *bass* : *bath*; *braise* : *bathe*, then that person will be unable to perceive the difference between these pairs of sounds, producing them as /s/ and /z/ and taking them to be the less marked /s/ and

/z/, respectively – the case of the L2 English of persons’ whose L1 is French.

Similar problems arise for:

- the acquisition of the English /r/:/l/ distinction by persons whose L1 is Japanese – a well known case, for the feature [lateral] is not an active, i.e. not a distinctive, feature in Japanese;
- the acquisition of the Catalan [-ATR] /E/: [+ATR] /e/ distinction by persons whose L1 is Spanish, [ATR] (= Advanced Tongue Root) not being an active feature in Spanish (Pallier et al. 1997).

Thus, in Pallier et al.’s behavioral experiments, the subjects, Spanish-Catalan and Catalan- Spanish bilinguals, who became bilingual at less than six years of age, were required to classify, discriminate, and give typicality judgments of vowels at seven points along an /e/ - /E/ ATR continuum, the Catalan /e/ : /E/ distinction activating [ATR], or [tense], a feature inert in Spanish.

Catalan-Spanish bilinguals (i.e., those whose L1 is Catalan) were easily able to assign tokens to one phoneme or another, to discriminate among tokens, and to judge tokens as good or bad instantiations of /e/ or /E/, but Spanish-Catalan bilinguals (i.e., those whose L1 is Spanish) were unable to perform the tasks at better than chance levels. Pallier et al. summarize their results as follows: “Spanish-Catalan bilingual subjects...had the best opportunities to learn a new contrast but did not do it” (B17) – a surprising result since these L2s were acquired at such a young age.

Conclusions similar to those about segmental phonology have been reached about the syllable structure and the phonotactics of L2 phonology (see, for example, Dupoux et al. 1999a; 1999b; O’Neil 1998; and Sekiya & Jo 1998).

We thus find that adults’ (= persons younger than) “growing” an L2 become entrapped in the narrower pieces of the phonology of their first languages, where we use the word adult to refer to persons older than six-to-seven years of age. If this expectation can be supported, it would be confirmation of sorts – perhaps the only sort – for the Sapir-Whorf hypothesis that “human beings...are very much at the mercy of the particular language which has become the medium of expression [of thought] for their society... We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation” (Sapir 1949: 162). Confirmation, to be sure, but at the level of phonology – very far below the lofty conceptual one that Sapir and Whorf had in mind and that they would want it to be at.

On the basis of an array of experimental research, it seems clear that in acquiring a second language adults and children beyond a certain age are “at the mercy of

the particular language”, but that there are interesting limits, grounded in linguistic theory, to the strength of the phonological and morphophonological traps set by L1s.

Morphosyntax

Returning now to our main issue: Is there L2 syntax?

In order to support the claim that L2 accents are entirely phonological, it is necessary to show that the many claims to the contrary are mistaken, that on reanalysis, what these studies have taken to be L2 syntax can be attributed to L1 influence at the SM interface, to morpho(phono)logy and phonology. Let us then reconsider some of the data taken to show that there is L2 syntax and morphosyntax.

All the constituents and features present in syntax and necessary to interpretation at the conceptual-intentional interface (CI – the interface with broader conceptual structure) are handed over to morphology to be interpreted at the SM interface or not. Consider, then, morphological features that are spelled out in some languages but not in others. It is at this point that we find that adult L2 forms trapped by L1s in ways that are quite similar to the phonological constraints discussed above, for just as phonological features that are not active in one's L1 are unavailable for the acquisition of the phonology, so also L2 morphological features left unspoken in the L1 tend not to be spoken in the L2.

Return to the discussion of Mandarin Chinese, which like the other Chinese languages, has no overt tense morphology, no natural gender morphology – pronominal or otherwise (ta = he, she; him, her, etc.), and a spoken plural NP morphology that is restricted to personal pronouns and optionally to [+human] nouns of two or more syllables.

By hypothesis, we predict that the English of persons' whose L1 is Mandarin Chinese to be nearly absent of past-tense morphology, of pronoun expression of natural gender, and of plural NP inflections.

In confirmation of these predictions, we find Yue (Cantonese) subject “Patty”, after long experience in English, using past-tense forms where required in English only about a third of the time. For the third-person singular pronouns, “Patty” – like most fluent Chinese L2 speakers of English – uses the masculine and feminine forms more or less randomly. And her overt NP pluralization is also very little in evidence (Lardiere 2000; for more detail, see Lardiere 2006).

In his remarks on the German language, Mark Twain captured the L2 dilemma of speakers of a language for which various nominal features, some of them irrelevant to meaning and introduced only in morphology, are left unspoken: “I say to myself, Regen (‘rain’) is masculine

– or maybe it is feminine – or possibly neuter – it is too much trouble to look now. Therefore, it is either der (the) Regen, or die (the) Regen, or das (the) Regen, according to which gender it may turn out to be when I look. In the interest of science, I will cipher it out on the hypothesis that it is masculine” (Twain 1880).

Mark Twain's anecdotal comments about German are supported in L2 acquisition research. For example, like German, Romance languages mark grammatical gender on the determiner (but only [±feminine] – there being no grammatical neuter in Romance), for which there are plural as well as singular forms. The following are the [+singular] definite and indefinite forms for Spanish:

- *la* [+feminine, +definite] *el* [-feminine, +definite]
- *una* [+feminine, -definite] *un* [-feminine, -definite]

In English, there is no overt grammatical gender. So how does an English speaker deal with this difference between English and Spanish?

More or less the way Mark Twain did with German: through forced choice, or by eliminating grammatical gender altogether and restricting the set of choices to *la* [+definite], *un* [-definite]. Similarly for English speakers' acquisition of French: *la/le* and *une/un* are apparently taken by English-speaking L2 learners of French to be free variants (Hawkins 2001: 254-257), another way of resolving the dilemma.

Sabourin et al. (2006) has studied this effect of L1 knowledge on the L2 knowledge, in this case effects for Dutch grammatical gender by adult speakers of German, English, and the Romance languages French, Italian, and Spanish acquiring the language. The gender systems for these languages differ in particular ways: English has no grammatical gender; Romance does but its way differs from that of Dutch; and German is very much like Dutch – a closely related language.

Sabourin and her colleagues conducted two types of experiments, the first a simple gender assignment task. The results of this experiment showed that “all L2 participants tested could assign the correct gender to Dutch nouns (all L2 groups performing on average above 80%), although having gender in the L1 did correlate with higher accuracy, particularly when the gender systems were very similar”.

In the second experiment, which required subjects to deal with noun-relative pronoun gender agreement, L1 effects were much in evidence, for on this task “a distinct performance hierarchy was found with the German group performing the best (though significantly worse than native speakers), the Romance group performing well above chance (though not as well as the German group), and the English group performing at chance. These results

show that L2 acquisition of grammatical gender is affected more by the morphological similarity of gender marking in the L1 and L2 than by the presence of abstract syntactic gender features in the L1". In the second study, L1 effects are quite clear.

Turning now to overt case-marking (which intersects with gender and number), we find that similar problems arise for persons who come from an L1 without overt case to an L2 with overt case. Mark Twain (1880) again: "If he is referring to [Haus 'house', Pferd 'horse', or Hund 'dog'], he [pronounce]s these words as I have indicated; but if he is referring to them in the Dative case, he sticks on a foolish and unnecessary E and [pronounce]s them Hause, Pferde, Hunde. So, as an added E often signifies the plural, ... a new student is likely to go on for a month making twins out of a Dative dog..."

These matters have also been examined; for example, in "a case study of the fossilized endstate L2 English grammar of an adult native speaker of Turkish", White found a "high level of accuracy in suppliance of English tense and agreement morphology. In contrast, suppliance of definite and indefinite articles was significantly lower but nevertheless appropriate... There is some evidence for influence from the L1, which has rich inflection but lacks articles, but this appears to be an effect on suppliance of overt morphology and not on underlying representation" (White, 2003:129).

It is, in fact, quite generally the case that if [\pm definite] is not spoken in the L1 (Japanese, for example), then it will not be spoken in an L2 if required, or it will be spoken in ways that are ungrammatical for the L2, seemingly used at random.

A final observation in this vein, on spoken versus unspoken pronouns: Languages also differ in this respect. For example, in English, pronouns are spoken except under very constrained conditions, while in Romance, the Avoid Pronoun Principle predominates. As pointed out by Hale (1988:32), this leads to "the persistence, in many fluent speakers of English whose L1 is a Romance language, of the use of 'small pro' object (with arbitrary reference)", as in:

- (1) This allows [e] to conclude that LF movement obeys subjacency after all rather than,
- (2) This allows one/us to conclude...

Linearization

The output of syntax, interpreted at the SM interface, consists of an unordered set of nested structures. Linearization, the left-to-right temporal ordering of these unordered, hierarchical structures of syntax, appears to "fall within the phonological component" (Chomsky

2005: 6); thus let us examine L2 linearization from this point of view.

Given the cross-linguistic variation that characterizes phonology, the output of linearization will differ from language to language. For example, assume that the structure of *wh*-questions is the same syntactically regardless of language: *Q* merging with a propositional structure, the *wh*-phrase (*wh*-P) copied to the edge of the structure by internal merge. Note that because of the limits of the twodimensional printed page, we are constrained to present the syntactic structure of *wh*-questions nested in square bracket but linearly arranged, but done here in a way so as not to favor the temporal ordering of any particular language:

- (3) [*wh*-P [[... *wh*-P ...] Q]]

In Mandarin Chinese, the *wh*-P is spoken in situ and *Q* may be spoken as the *wh*-question particle /ne/, though generally it is left unspoken. If spoken, /ne/ shows up at the right edge of the question; for example – unspoken constituents stricken through:

- (4) [Shei [ta kanjian-le shei] (ne)]?

~~who~~ s/he see- {perf} who Q-particle
s/he saw who? 'Who did s/he see?'

In English, *wh*-P is spoken at the left edge, with *Q* unspoken in an indirect question, but showing up as a copy of a modal verb or an appropriate form of *do* in direct questions:

- (5) I wonder [who [Q [she will see ~~who~~]]]
- (6) [Who [will [she ~~will~~ see ~~who~~]]]

Despite these quite striking differences between Mandarin Chinese and English, they appear not to result in noticeable L2 errors (White and Juffs 1998). Moreover, other such striking linearization differences between languages, whether adjectives precede or follow their heads (English versus Spanish); whether relative clauses precede or follow their heads (Mandarin Chinese versus English); whether a language is at the SM interface right- or left-headed (Japanese versus English), these phonologically-realized different linearizations also do not seem to make for L2 accents. The intuition and heuristic here is that such obvious linearization differences between an L1 and an L2 are easy to acquire on the assumption that at least with respect to these aspects of phonology, dissimilar is easier to acquire than similar, as Borer (1996:720) noted about segmental phonology; see also Honda and O'Neil (2004:24-25).

This assumption suggests that effects of an L1 on an L2 might be found where the differences between the

linearization of the L1 and L2 is more complex, some properties of the two languages shared but not others. German is such a language for speakers of English, Turkish, and the Romance languages.

L2 acquisition of German by speakers of these languages is discussed at length in Hawkins 2001 (124-146), where the conclusions of several studies on this topic are summarized and ultimately reinterpreted by him.

Consider this sentence from Hawkins 2001, which all of the example sentences are taken from or modeled on:

- (7) Johann kaufte heute ein Buch (Hawkins 2)
Johann bought today a book

Its underlying structure is this, ein buch (already merged) is merged with the root “kauf-; the morpheme {past} merged with the root phrase ein buch kauf-, which is then merged with Johann; this whole structure being recursively merged with the null element e. Heute is brought in through adjunction to the root phrase ein buch kauf-, yielding the following nested structure:

- (8) [e [e [Johann [{past} [heute [[ein buch] “kauf-]]]]]]

Kauf- internally merges to {past} and kauf-{past} to the lower empty position (e) and Johann to the higher empty position.

However, any one of the other non-verbal constituents could also have moved, for stylistic purposes – perhaps, to the higher e, yielding either of these two German sentences in addition to the one already given:

- (9) Ein buch kaufte Johann heute
(10) Heute kaufte Johann ein buch

In a sentence with a complex verbal structure, a perfective – for example, only the tensed constituent is merged to the higher e, as in the following sentence:

- (11) Ein buch hat Johann heute gekauft (Hawkins 18a)
A book has Johann today bought

In an embedded clause, there is only lowering of the tense morpheme (in this case {past}) to the verb root:

- (12) Sie weiss [dass [Johann heute ein buch kaufte]]
(Hawkins 19a)
She knows that Johann today a book bought

Linearization in German always requires the finite verb form to be merged as the second constituent in a main clause; informally speaking, German is a (finite-) verb-second language. However, in embedded clauses, German linearizes as a verb-final language.

The studies of L2 acquisition of German word order disagree over whether their subjects have a fairly complete syntactic representation from the very beginning or whether they move toward that structure through a series of stages in which the edge features (e) are added, both conclusions being examples of a grammar building approach to L2 acquisition.

However, another way to view this work is to assume that L2 learners of German have fully realized hierarchical syntactic representation at all times and that they are struggling with how to bring them to the SM interface in a way that matches the positive linguistic data of the L2 input: i.e., what to pronounce and where to pronounce it (linearization). Is German at the surface an SOV (Subject-Verb-Object) language like English and the Romance languages, for which there is some positive evidence and as speakers of these languages seem to initially want to be, with adverbs free to adjoin more or less wherever, as in (13) (the asterisk indicating that the sentence is not well-formed in German)?

- (13) *Heute Johann hat gekauft ein buch
Today Johann has bought a book

This suggests the effect of L1 linearization on word order, the initial stages of acquisition. Speakers of these languages do go on to gain good to excellent control of German linearization except that they generally find it difficult to make the native German distinction between constituent order in main and embedded sentences.

For more on this matter, turn to Hopp 2005, a study of optionality in linearization “in the second language (L2) German of advanced English and Japanese speakers.” Thirty-nine subjects were administered a grammaticality judgment task “on a set of scrambling, topicalization and remnant movement constructions.” English and Japanese are quite different from German in these respects, and vastly different from each other along these lines; thus Hopp assumed that “English and Japanese learners face distinct learnability challenges”.

His results were these: “Irrespective of L1, the L2 groups are found to establish systematic native-like relative distinctions. In addition, L1 transfer effects are attested for judgements on scrambling. It is argued that these findings imply that interlanguage grammars are fully UG constrained, whilst initially informed by L1 properties” (Hopp 2005:34).

In the studies we have considered, although the effects of an L1 on L2 linearization are not necessarily permanent, what is left unspoken in the L1 appears often to be have permanent effects on knowledge of a second language.

Conclusion

The model for second language acquisition proposed in Honda and O'Neil (2007:62, 240) is, in contrast with that of first language acquisition, a subtractive one, for in addition to Universal Grammar (UG), there is the already known grammar of the L1 (PG1):

(14) L2 data → UG-PG1 → PG2

On the working hypothesis presented above, the subtraction from UG by PG1 (L1 knowledge) is largely, if not entirely, phonological; that is, the phonological constraints from L1 knowledge impose themselves on what at first appearances might seem to involve syntax, but which we have argued is phonological in the broadly conceived sense of phonology that we have adopted.

This hypothesis does not meet Chomsky's high level of precision; yet, as a heuristic, it is precise enough for its inadequacies, if there are any, to be easily and quickly exposed, and for us to "gain a deeper understanding of the linguistic data." This line of argument deserves to be examined more fully.

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