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Second Language Acquisition of Phonology, Morphology, and Syntax

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Introduction

Four questions have dominated recent research in second language (L2) acquisition: (i) What role does a speaker's first language (L1) play? (ii) Does L2 acquisition display developmental patterns that are similar across learners? (iii) Is an innately determined human language faculty involved? (iv) Why is knowledge of an L2 sometimes underdetermined by the input? This article reviews some of the empirical findings bearing on these questions in the domains of L2 phonology, morphology and syntax, and considers how answers might contribute to the construction of a theory of L2 acquisition.

L2 Acquisition of Phonology

Casual observation tells us that most speakers of an L2, where acquisition has occurred beyond childhood, have foreign accents. Is this the consequence of the pervasive influence of a speaker's L1? With some properties of L2 phonology there is early, but temporary, L1 influence, with others L1 influence is persistent, and with yet other properties the influence comes from universal principles of phonological organization.

Broselow (1983, 1988) offers a clear case of L1 influence. Native speakers of Egyptian and Iraqi Arabic, in their production of syllable-initial English consonant clusters, may insert an epenthetic vowel; i.e., a vowel that creates an extra syllable. Interestingly, Egyptian Arabic speakers insert it in a different position from Iraqi Arabic speakers (Table 1) as a result of their L1 Arabic syllable structure.

Table 1 Insertion of an epenthetic vowel by speakers of Arabic (based on Broselow, 1983, 1988)

English target form	Egyptian	Iraqi
floor	filoor	ifloor
plastic	bilastic	iblastic
children	chilidren	childiren
translate	tiransilate	itranislate

The maximal allowable syllable in Arabic is C(consonant)V(owel)C(onsonant) (with some exceptions, irrelevant to the point here). When morphosyntactic operations in Arabic are in danger of producing consonant clusters, an epenthetic vowel is inserted. Compare (1) and (2) cited by Broselow.

(1) Egyptian   katab + l + u   →   katablu
　　　　　　　　　wrote-he to-him
　　Iraqi   kitab + l + a   →   kitabla
　　　　　　　wrote-he to-him
　　　　　　　'He wrote to him'

(2) Egyptian katab + t + l + u → *katabtlu → katabtilu
　　　　　　　wrote I to-him
　　Iraqi   kitab + t + l + a → *kitabtla → kitabitla
　　　　　　wrote I to-him
　　　　　　'I wrote to him'

In (1), morphosyntactic operations combining the verb and affixes generate strings that do not violate Arabic syllable structure: *ka-tab-lu, ki-tab-la*. However, in (2), strings are generated with a non-syllabified consonant /t/: *ka-tab-t-lu, ki-tab-t-la*. Because adjunction either to the preceding or following syllable would violate Arabic syllable structure, an epenthetic vowel is inserted. But it gives rise to different syllabification in the two varieties. The Arabic speakers appear to transfer this L1 constraint into their L2 phonological representations for English.

L1 influence can also be found in the representation of segments. An interesting case of this is known as differential substitution (Weinberger, 1996: 269), where an L2 segment does not exist in the learner's L1 and the learner substitutes an L1 segment for it. But the substituting segment varies depending on the L1 in question. None of Russian, French, or Japanese have the English phonemes /θ/ or /ð/ found in the words *think* and *this*. Russian speakers substitute /t/ and /d/ for these segments, producing *tink/dis*. Speakers of French and Japanese, however, substitute /s/ and /z/, producing *sink/zis*. All of /t-d-s-z/ contrast phonemically in Russian, French, and Japanese. This is not, then, a case of simple surface substitution of one segment for another, nor random substitution of /θ-ð/ by segments in the same articulatory area. What could give rise to the observed behavior?

Weinberger suggests it is a combination of a universal property of phonological representation in human language, together with language-specific differences in implementation of this universal. The universal is the underspecification of features in the underlying representations of phonemes. Features that are entirely predictable are absent from the underlying representation of a phoneme and are filled in during the course of deriving a sentence by redundancy rules, e.g., in the five-vowel system /i, e, a, o, u/, if /i/ and /u/ are high vowels and their underlying representation is specified as [+high], the others need not be specified [−high] since this is entirely predictable. Language-specific differences arise where the inventory of phonemes in each language differs in which features are specified in underlying representations and which features are not.

Weinberger claims that the underlying representations of /s-z/ and /t-d/ in Japanese are all specified as [−sonorant] (distinguishing them from vowels, glides, liquids, and nasals), and for [+/−voice], but differ in that /t-d/ are specified [−continuant], while /s-z/ are not; the value [+continuant] is supplied for /s-z/ by a redundancy rule during the course of the derivation. In Russian, his claim is that the underlying representations for /s-z/ are specified [+continuant] while /t-d/ are not.

When speakers of Japanese and Russian encounter /θ-ð/ in an L2, they cannot initially represent this contrast (because it does not exist in their L1 phonology). Instead, they assimilate these segments to the closest minimally specified phonemes with matching features in their underlying representations in the L1: ones specified only as [−sonorant] and [+/−voice]. In Japanese the matching phonemes with the fewest features are /s-z/, but in Russian they are /t-d/. Thus differential substitution results from the interaction between a proposed universal of phonological representation (feature underspecification), a universal of L2 development (assimilation of a new segment to a minimally specified segment that matches in features in the L1), an L1-specific difference in the implementation of feature underspecification, and a phonemic contrast in the L2 that is new to the learners in question.

Is L1 influence temporary or persistent? The substitution of /s/ for /θ/ discussed by Weinberger is known to be a persistent feature of Japanese speakers. In Japanese, Mandarin Chinese, and Korean certain phonemic contrasts are not present: /s-θ/, /l-r/, /f-v/ and /p-f/. Brown (2000) investigated how speakers of these L1s treat the contrasts in L2 English. All three languages have the phonemes /s-p/, yet they lack /θ-f-v/. Furthermore, on Brown's analysis,

Mandarin Chinese and Korean have the phoneme /l/ but lack /r/, whereas Japanese has a flapped phoneme /ɾ/, which is traditionally equated with English /r/ but lacks the phoneme /l/ (although one of the allophonic realizations of /ɾ/ is an [l]-like sound).

In an auditory discrimination task participants heard two pairs of invented one-syllable words. In one pair the same phoneme occurred in syllable-initial position, while in the other there was a contrast, for example:

    ra-la   ra-ra
    fa-fa   va-fa

Informants were required to indicate, for each stimulus, which of the pairs was different. The participants were university students in Japan with 8 to 10 years of instruction in English, probably of high intermediate to advanced proficiency (n = 15 with L1 Japanese, 15 with L1 Mandarin Chinese, 11 with L1 Korean). Ten native speakers of English acted as controls. Results revealed that all groups, nonnative and native, correctly distinguished /p-f/ and /f-v/ on over 90% of items. However, the three nonnative groups' performance dropped below 80% accuracy with /s-θ/, whereas the natives performed at over 90% correct. This is a statistically significant difference. In the /l-r/ contrast, the Japanese and Korean speakers' (below 70%) were significantly less accurate than those of the Chinese and the native speakers (around 90%). There was no difference between the Chinese and the natives in this case.

These are surprising results. None of the tested contrasts exist in the informants' L1s. The /p-f/ and /f-v/ contrasts pose no difficulties for acquisition for any of the learners: /f/ and /v/ are acquirable, it seems, yet all learners had ongoing problems distinguishing /s-θ/, and only the Mandarin Chinese speakers acquired the /l-r/ contrast.

What could explain this selective influence of the L1 on the acquisition of new phonemes in an L2? Brown argues that the human language faculty in its initial state at birth provides a set of distinctive phonological features like [voice], [aspiration], [continuant], [coronal] etc. which would allow the child potentially to represent any phonemic contrast found in human language. When the child is exposed to a particular language or languages, only a subset of this universal inventory is required to establish a phonological representation. Unused features cease to be available to the learner at some point in development. When a learner comes to acquire an L2 later, only the range of features selected in L1 acquisition can be used for representing the phonology of the L2. New phonemes are acquirable providing that their feature composition involves features present in the L1, even

if the phonemes are not present in the L2. To illustrate, Brown claims that the phonemic inventory of Mandarin Chinese includes the feature [coronal], which is required to distinguish alveolar /s/ from retroflex /ʂ/. This feature is also crucial for distinguishing /l/ and /r/ in English (on Brown's analysis). So when Mandarin Chinese speakers encounter English, they are able to set up a contrast between /l/ and /r/ involving the feature [coronal], even though /r/ is not a phoneme in Mandarin. By contrast, Japanese and Korean do not have the feature [coronal]. The /l-r/ contrast therefore remains persistently problematic for them. As for the /f-v/ contrast, it involves the features [continuant], [labial], [voice]. Although neither of these phonemes is present in Japanese, Chinese or Korean, the relevant features are present. Hence, /f-v/ poses no difficulty in L2 acquisition. Finally, none of Japanese, Chinese and Korean has the feature [distributed] that, according to Brown, distinguishes /θ/ from /f/ and /s/ in English. Hence, none of the groups is able to establish a phonological representation for /θ/.

A follow-up study by Brown comparing two Japanese native groups with L2 English (low proficiency vs. high proficiency) suggests that contrasts that are different between the L1 and the L2 are initially not represented, with L2 speakers assimilating new phonemes to existing L1 phonemic categories. If, however, features required to make an L2 contrast are present in the L1, restructuring occurs with continued exposure to L2 input.

In summary, L2 syllabic structure is initially determined by syllabic structure in the L1. Segments that are not phonemes in the L1 are initially assigned to phonemes with minimally matching sets of features. With continued experience of the L2 speakers restructure their phonological system and new phonemes are acquirable, but only if the L1 system has encoded the distinctive features required for establishing such new phonemes.

L2 Acquisition of Inflectional Morphology

Inflectional morphemes are the surface manifestation of features that are represented underlyingly in functional categories such as Inflection, Determiner, and Complementizer (Table 2).

Empirical studies have found quite similar developmental patterns in the L2 acquisition of inflectional morphology, with apparently little L1 influence. Dulay and Burt (1973, 1974) and Bailey, Madden, and Krashen (1974), using oral data, found that child and adult native speakers of Spanish, Cantonese, and other languages supplied some morphemes more frequently than others. Dulay and Burt (1974)

Table 2 Some English inflectional morphemes and the Realization of their underlying features

Inflectional morpheme	Realization of underlying features
Copula and auxiliary *be*	Tense, subject-verb agreement
-ing	Progressive aspect
Regular past (walk-*ed*), irregular past (*ran*)	Tense
Plural (dog-*s*)	Number]

Figure 1 Acquisition of eleven morphemes by Spanish-speaking and Cantonese-speaking children in L2 English (Dulay and Burt, 1974: 49). Note: Group score is based on adding together the total score for each individual and dividing by the number of informants in each group; group mean is based on calculating the mean score for each individual, adding the means together for each group, and dividing by the number of informants in the group.

compared Spanish and Cantonese child learners (Figure 1). Although the Spanish speakers supplied more morphemes in absolute terms than the Cantonese speakers, the relative ratio of suppliance between different morphemes was highly similar. This pattern of suppliance in oral production has been repeated in many other studies of L2 learners of English.

How can such non-L1-influenced patterns of behavior be explained? Dulay and Burt and Bailey, Madden, and Krashen assumed that frequency of suppliance reflected order of acquisition. That is, that progressive *-ing* is acquired earlier in L2 English than past tense, and copula *be* before the marking of subject-verb agreement by third-person singular *-s*. However, a recent interpretation postulates a separation between the development of syntactic knowledge and the development of inflectional morphology. Syntactic knowledge is more developed than the use of inflectional morphology would suggest. For example, Ionin and Wexler (2002) found that a group of Russian-speaking child learners of L2 English supplied past tense forms in obligatory past tense contexts 42% of the time, yet there were no errors of misuse of the past tense forms; and whereas third-person *-s* was only supplied in 22% of required cases, it was misused in just 5% of cases. Speakers appear to know the range of meanings of inflectional morphemes even if they fail to produce them in every context in which they are required. If this view is correct, then the syntactic properties underlying the distribution of inflectional morphemes in Dulay and Burt's (1974) study have been acquired. The reason why some forms are supplied more frequently than others must then be the result of something other than lack of acquisition of the underlying syntactic property.

The two views just described correspond to two different lines of theoretical enquiry in modern L2 research. One is known as Minimal Trees (MT) (Vainikka and Young-Scholten, 1994, 1996). This proposes that L2 learners' initial interlanguage grammars (ILGs) (i.e., their mental L2 grammars) consist only of projections (phrases) built from lexical heads
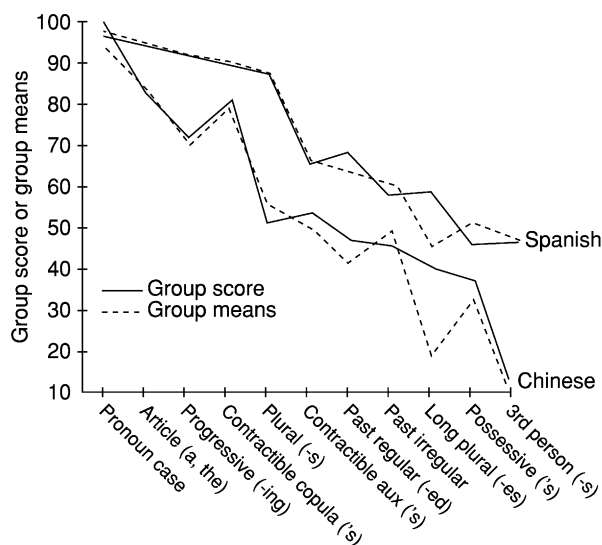
such as Noun, Verb, and Adjective. Learners identify forms in the input belonging to these categories, and generate linguistic expressions from them. Functional projections such as Inflection, Determiner, and Complementizer are acquired later on the basis of evidence in the L2 input. Importantly, functional categories develop incrementally with those emerging first that immediately dominate the lexical heads, e.g., Inflection, which dominates the verb phrase, emerges before Complementizer, which dominates Inflection. Furthermore, when functional categories first emerge they are minimally specified, e.g., Inflection might be specified for tense before it is specified for subject-verb agreement. Because MT predicts the sequential emergence of categories, different frequencies in suppliance of morphemes realizing functional categories (like those observed by Dulay and Burt and Bailey, Madden, and Krashen) reflect the acquisition of the corresponding underlying syntactic properties. Typically, 60% (or above) suppliance of a form implies acquisition of its syntactic properties (Vainikka and Young-Scholten, 1998).

The second line of theoretical enquiry assumes that both lexical and functional categories are present in early ILGs, either because the language faculty provides them directly as part of its architecture, or because they are transferred from the L1. If learners supply the morphological reflexes of a functional category, whatever their frequency, then the

functional category and its relevant syntactic features have been acquired. But why do learners sometimes fail to supply the morphological reflexes of functional categories? According to the Missing Surface Inflection Hypothesis (MSIH) (Haznedar and Schwartz, 1997; Prévost and White, 2000), L2 learners may select less specified 'exponents' for the output of morphosyntactic operations than would be required in the grammar of a native speaker. To illustrate, *walked* and *walks* are the forms of WALK required when the Inflection category is specified as [finite], and either [past] for *walked* or [nonpast, third-person, singular] for *walks*; *walk* is the exponent inserted elsewhere in finite clauses – it is an under-specified default form. L2 speakers sometimes map the default form *walk* onto [past] or [nonpast, third-person, singular] because L2 speakers are perhaps slower than natives at matching exponents to underlying syntactic representations, especially when speakers are under 'communication pressure' (Prévost and White, 2000) and when nondefault exponents have more complex final consonant clusters (*walked*: /kt/, *walks*: /ks/) than default exponents (*walk*). Nondefault forms may just be too costly in processing terms to select if a speaker's L1 disallows syllable-final consonant clusters (Lardiere, 2000). By contrast, Ionin and Wexler (2002) propose, following Guasti and Rizzi (2002), that if a syntactic operation involves overt movement, this should have a surface morphological reflex. Because copula and auxiliary *be* in English are usually assumed to be verbs that raise to Inflection, they must be morphologically marked on the surface. By contrast, main verbs like *walk* do not raise overtly to Inflection. Instead, tense and subject-verb agreement are associated with main verbs via a covert agreement operation. In such cases, there is no universal requirement to mark covert operations on the surface. Languages differ in whether they do or do not, and language learners have to acquire this on the basis of exposure: ". . . L2 learners know that morphological expression is obligatory for *be* forms . . . but have not mastered the English-specific rules requiring agreement morphology on unraised lexical verbs in certain contexts" (Ionin and Wexler, 2002: 118). Until this rule has been acquired, L2 speakers may treat *-s* and *-ed* as optional. Like MSIH, this account assumes that underlying syntactic representations are more highly developed than oral suppliance of morphological forms.

L2 Acquisition of Derivational Morphology

Although evidence suggests little L1 influence on the development of inflectional morphology, this appears not to be true of derivational morphology.

Derivational morphology is typically the surface manifestation of an operation that changes the grammatical class membership of a lexical item, e.g., *-er* signals the change of an item from a verb like *sing* to an agentive noun: *singer*.

Lardiere (1995) tested Spanish and Chinese native speakers' knowledge of derivational morphology in L2 English. English deverbal compound nouns like *dishwasher* are formed from verb-object constructions: *washes dishes*. They show O(bject)-V(erb) order (in contrast to the VO order of the verb construction), and the Object, if a regular plural, loses its *-s*. Spanish deverbal compounds continue to display VO word order and retain the plural *-s*, e.g. *un lava-platos* (lit. a wash.3sg-dishes) 'a dishwasher.' In Chinese, there is no plural marking and deverbal compounds are either realized by relative clauses or by non-deverbal N-N compounds (Lardiere, 1995: 39, note 18). If properties of the L1 play a role in the development of knowledge of these compounds, we might expect to see a difference in the suppliance of *-s* (Spanish has plural marking, whereas Chinese does not), and in the rate of production of V-N (*washes-dishes*), with the Spanish speakers producing such cases more than the Chinese.

Learners of intermediate to high-intermediate proficiency (L1 Spanish, n = 15; L1 Chinese, n = 11) were presented with questions of the type: "What could you call a person who cleans shoes?," where the expected response is "a shoe cleaner." Results show that there was a significant difference in the production of targetlike English deverbal compounds by Spanish speakers (only 32%) vs. Chinese speakers (62%). Nontarget-like forms consisted of (i) word order errors like V-N, made almost exclusively by the Spanish speakers, and (ii) plural marking of the N, e.g., "a shoes-cleaner" (58% for the Spanish group vs. only 31% for the Chinese group). It appears that morphological properties of the L1 affect development. In particular, Spanish speakers expect deverbal nouns in English to have V-N order and the N to be marked for plural significantly more than the Chinese.

In a further study, Lardiere and Schwartz (1997) found that V-N word order errors decrease over time in Spanish-speaking learners of L2 English (42% for low intermediates, 23% for intermediates and 0.5% for advanced intermediates).

To summarize, L1 influences the representation of derivational morphology in early L2 development, but this influence disappears with proficiency.

L2 Acquisition of Syntax

One potentially impressive kind of evidence that interlanguage grammars develop within limits

defined by an innately determined faculty for language comes from cases where syntactic properties are underdetermined both by L2 input and by properties of a learner's L1. One such property is the Overt Pronoun Constraint, OPC (Montalbetti, 1986). It holds that in languages where an overt pronoun and a null pronoun can alternate freely, only the null pronoun can take a quantified expression as an antecedent, e.g., in Spanish null pronominal subjects (Ø) can alternate with overt pronominal subjects like *él* 'he.' Given a relevant preceding context, (3a), in (3b) both *él* 'he' and Ø in the embedded clause can refer to the referential expression *Juan* 'John' in the matrix clause, as indicated by the coindexing *i*. It also would be possible for both *él* and Ø to refer to an extrasentential antecedent like *Pedro* 'Peter.' In (3b′), the null pronoun Ø can refer to either the quantified expression *nadie* 'nobody,' or even to an extrasentential referent like *Pedro*. The overt pronoun *él* could also refer to an extrasentential antecedent but, crucially, the OPC prohibits the overt pronoun from referring to the quantifier *nadie* 'nobody.'

(3a) Pedro$_j$ y Juan$_i$ están participando en un concurso.
Peter and John are participating in a contest.

(3b) Juan$_i$ cree [que él$_{i/j}$ / Ø$_{i/j}$ ganará el premio]
John thinks [that he / Ø will-win the prize]

(3b′) Nadie$_i$ cree [que él$_{*i/j}$ / Ø$_{i/j}$ ganará el premio]
Nobody thinks [that he / Ø will-win the prize]

Pérez-Leroux and Glass (1997) tested OPC knowledge with English speakers learning L2 Spanish (n = 16) at a very advanced level of proficiency with a minimum of 7 years of experience in Spanish. Eighteen Spanish natives acted as a control group. In a contextualized translation task, natives categorically produced more null pronouns (75%) than overt pronouns (15%) with quantified antecedents. Learners behaved similarly (null pronouns 87% vs overt pronouns 0%), as predicted by the OPC (Table 3). With referential antecedents both groups produced significantly more overt subject pronouns (74%

Table 3 Proportion of acceptance (%) of antecedents for overt and null pronouns (based on Table 1 by Pérez-Leroux and Glass, 1997)

Antecedent	Pronoun	L2-ers (n = 16)	Native Spanish (n = 18)
Quantified	*él*	0%	15%
	Ø	88%	75%
Referential	*él*	34%	74%
	Ø	58%	24%

Note: The sum of the two conditions (*él* and Ø) in each antecedent context does not always amount to 100% since some of the participants' responses were categorized as 'other,' i.e., a pronominal subject was not produced.

natives, 34% learners) than with quantified antecedents (15% natives, 0% learners), although learners overused null subjects with referential antecedents. Pérez-Leroux and Glass (1997: 159) conclude: "These results indicate a sensitivity to OPC effects in the grammar of highly fluent L2 speakers of Spanish."

Is the OPC operative at very advanced levels of proficiency only or rather at all levels of proficiency? Pérez-Leroux and Glass (1999) used the same method with three proficiency groups of English speaking learners of L2 Spanish (elementary, n = 39; intermediate, n = 21; advanced, n = 18) and a control group of Spanish natives (n = 20). The production of null subjects across groups (Figure 2) was significantly higher with quantified antecedents (as predicted by the OPC) than with referential antecedents. This suggests that "OPC is operative at all stages in the acquisition of Spanish" (Pérez-Leroux and Glass, 1999: 235).

Crucially, could knowledge of the OPC derive from the Spanish input alone? This seems unlikely. Learners will hear Spanish speakers using: (i) null pronouns with both quantified and referential antecedents; and (ii) *él* with referential antecedents, so nothing in the input prevents them from using *él* with quantified antecedents. Furthermore, if they transferred properties of English, they would allow overt pronouns to refer to a quantified antecedent, because English allows this possibility.

Recent research has uncovered other cases in which L2 knowledge is underdetermined by input, suggesting that innately determined principles of grammar construction are active in the development of L2 grammars, even when acquisition occurs in older learners (White, 2003: Chap. 2).

As for language-specific properties, some appear to be influenced by L1 and some do not. An interesting case of 'differential L1 influence' in syntax is
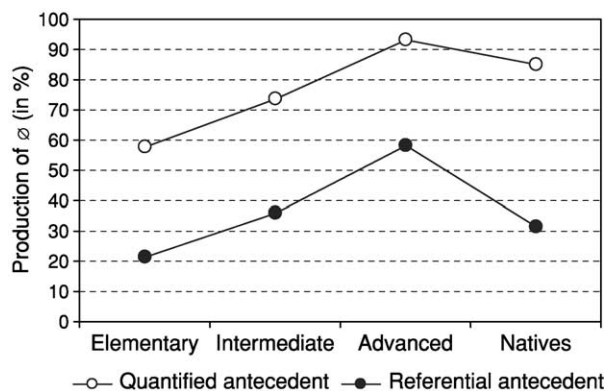

Figure 2 Percentage of production of null pronominal subjects with quantified and referential antecedents (based on Table 1 in Pérez-Leroux and Glass, 1999).

provided by the acquisition of expletive *it* in English, which is obligatory: *She says it/*ø seems hot today.* Spanish, Greek, Japanese, and Chinese have no expletive pronouns in equivalent cases. However, Japanese and Chinese speakers establish obligatory English expletives more quickly than Spanish and Greek speakers. Zobl (1990) found that Japanese speakers of English at a range of proficiency levels produced hardly any null expletives (ranging from 0% to 18%) in written compositions. A comparison by Zobl between his results and those of Phinney (1987), who tested Spanish speakers at comparable proficiency levels, revealed that Spanish speakers produced null expletives between 50% and 70%. Similar patterns have been widely observed for Spanish/Greek speakers vs. Japanese/Chinese speakers.

Why might this difference occur? It seems to be linked to the fact that null subjects are licensed differently in the two types of languages. Null subjects are licensed via rich person/number verbal morphology in Spanish/Greek (Rizzi, 1997), but via lack of verbal morphology in Japanese/Chinese (Huang, 1984). When speakers of Japanese/Chinese encounter impoverished English verbal morphology to mark person/number (only third-person singular -*s* vs. Ø), their innate language faculty tells them that English does not license null subjects (Yuan, 1997). It would appear that speakers of Spanish/Greek-type languages find it more difficult to determine that person and number morphology on verbs in English is impoverished.

Is L1 syntactic influence on the L2 temporary or persistent? Problems for speakers of Spanish/Greek with obligatory subjects in English appear to be temporary. But in cases in which L1 influence is more persistent, do L2 learners have full access to the resources of the language faculty? To illustrate, consider a case of considerable debate in recent L2 research. Lardiere (1998a, 1998b, 2000) reports a case study of an L1 Chinese speaker with long immersion in English. She found that this speaker in ordinary conversation was fully target-like in supplying pronouns of the right case, Nominative vs Accusative (e.g. *she* vs. *her*), but supplied past tense where it was required in only around one-third of contexts, and third-person singular -*s* on main verbs in less than 5% of cases. Chinese lacks all three of these properties: pronouns do not inflect for case, and verbs do not inflect for tense or subject-verb agreement. Has this speaker then failed to establish an underlying syntactic representation for the features of tense and subject-verb agreement? One answer could be 'yes, she has.' Tense and agreement features may be present in the inventory of syntactic features in the language faculty at birth, but, if they are not selected during L1 acquisition, they become inaccessible at some point during a person's maturation, as in Brown's (2000) finding of persistent failure of L2 speakers to acquire certain phonemes which are not present in the L1. However, Lardiere argues that her informant may just be having a problem mapping past tense and third-person singular present tense forms onto fully-specified syntactic representations, as discussed in the section on inflectional morphology.

It is clear from the evidence presented that L1 influence is considerable but not total in the development of L2 grammars. L2 knowledge is also driven by innate properties of the language faculty, especially when the L2 input underdetermines such knowledge. The picture of SLA that emerges is one of a complex interaction among innate knowledge, previous knowledge from the L1, and input from the L2.

See also: Compound; Distinctive Features; Formal Models and Language Acquisition; Functional Categories; Innate Knowledge; Interlanguage; Language Acquisition Research Methods; Language Development: Morphology; Language Development: Overview; Morpheme; Syntactic Development.

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Second Language Attrition

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Introduction

Language attrition is a process which many – linguists and nonlinguists alike – appear to find interesting. Many people feel that, at some point in their lives, they have lost or forgotten some of the competence that they once had in a language, be it a foreign language learned at school or through a sojourn in the country where it was spoken, or a first language which has fallen into disuse for some reason. It is certainly no coincidence that a seminal work on second language (L2) attrition opens with the statement "Language loss affects all of us" (Hansen, 1999). It would be hard to imagine a paper on language acquisition, markedness, or minimalism starting with such a sentence, although it might be equally true.

One reason for this, I would propose, lies in the simple fact that the process of 'un-learning' differs from the process of learning or acquisition (or, for that matter, any other process or aspect of the use of a language) in several ways, but possibly most profoundly on a psychological level: it is an individual (and often lonely) one. While learning a language will almost invariably take place through interaction, through the sharing of a linguistic system that others