Some thoughts on the contrastive analysis of features in second language acquisition

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In this article I discuss the selection and assembly of formal features in second language acquisition. Assembling the particular lexical items of a second language (L2) requires that the learner reconfigure features from the way these are represented in the first language (L1) into new formal configurations on possibly quite different types of lexical items in the L2. I illustrate the nature of the problem by comparing the assembly and expression of features involved in plural-marking in English, Mandarin Chinese and Korean, and situate this comparison with respect to specific claims of the Nominal Mapping Parameter and within a discussion of parameter (re)setting more generally. I conclude with a few even more general thoughts on the role of Universal Grammar (UG) in (second) language acquisition.

Keywords:  features, parameter resetting, functional categories, contrastive analysis, plural-marking, Universal Grammar in second language acquisition

I Introduction

Features – phonological, formal and semantic – are the primitive, elemental units that make up the lexical items of every language, and the differences between languages are due to differences among these features. Within minimalist syntactic theory, in particular, syntactic differences and their interpretive consequences are hypothesized to be limited to those items that make up (or head) functional categories
such as C, T or D, each of which comprises sets of one or more formal features such as [±wh], or [±past] or [±definite] (following Borer, 1984; Chomsky, 1995; Fukui, 1995). Features can be bundled together onto functional categories in different, language-specific ways, and even differently for different clause types within the same language (Hegarty, 2005: 8). It is thus the task of the language acquirer to discern these specific configurations of features from the properties and placement of particular lexical items present in the linguistic input. Travis (2008) underscores the centrality of the role of features, writing that they are ‘at the heart of recent Chomskyan syntactic theory and within this theory at the heart of language variation. Therefore, any study of language acquisition done within this framework is now a study of the acquisition of features’ (p. 23).

Where do these features come from? In part because languages vary and because any normal child exposed over a few years in early childhood to any human natural language will acquire it equally well, it has been argued that there is a universal set or inventory of linguistic features available to the child as part of the human genetic endowment, along with a species-uniform computational mechanism that combines and interprets the relevant features in a highly constrained way. Not all languages make use of all the features in this universal set; therefore, the child’s acquisition task is to select only that subset of features actually detectably deployed in the particular language(s) being acquired, while ‘disregarding’ or ‘discarding’ or ‘forgetting’ the others (Chomsky, 2001: 10; Rizzi, 2005: 74; I come back to this

1Functional category labels such as C, T and D are derived from conventional grammatical category terms, such as ‘complementizer’, ‘tense’ and ‘determiner’ (respectively), and may be construed as ‘cover terms for a richer array of functional categories’ (Chomsky, 2001: 43). The categories (and associated subcategories) of C, T and D have been related to clause type, tense/event structure and referentiality, respectively, among other possible properties (Chomsky, 1995; 2001). The term ‘lexical’ has traditionally been opposed with ‘functional’, such that the former refers to the substantive, open categories of N, V and A, whereas the latter refers to closed, grammatical categories, such as C, T and D. However, the term ‘lexical item’ is used in various senses, one of which refers to both lexical and functional category-types (all the morphemes of a language, including zero; see, for example, Chomsky, 1995: 54; Kayne, 2005: 4); another refers to formal feature bundles (only) that enter into the syntactic computation, minus any phonetic and semantic information not relevant to the computation (see, for example, Halle and Marantz, 1993; Chomsky, 1998; Bejar, 2003; Cowper, 2005; regarding properties of ‘abstract morphemes’ vs. ‘roots’, compare Embick and Noyer, 2007). In this article I (often) use the term ‘(morpho)lexical item’ to refer to language-specific morphemes with functional features (e.g. the, -s, who, etc.). This is equivalent to the (functional) Vocabulary Items of Distributed Morphology, assuming these to be the sort of object a language acquirer encounters in the input and is trying to construct featural representations for. This latter task is my primary focus of inquiry here.
point in Section VI). The selected features are assembled by the child into language-specific lexical items that enter into computations that derive hierarchically-structured representations for the pairing of meanings with forms.

In this article I discuss the selection and assembly of features in second language acquisition (SLA). Unlike a child acquiring a first, native language, the second-language acquirer brings to the SLA task an already-fully-assembled set of (L1) grammatical categories. The way in which these features have been combined and configured in the native language will to some (presumably non-arbitrary) extent differ from that of the target L2. Therefore, among the challenges confronting the learner in figuring out how to compose the morphosyntactic categories of the target language are the following:

- With which functional categories are the selected features associated in the syntax, and how might this distribution differ from the feature-matrices of functional categories in the L1?
- In which lexical items of the L2 are the selected features expressed, clustered in combination with what other features?
- Are certain forms optional or obligatory, and what constitutes an obligatory context? More specifically, what are the particular factors that condition the realization of a certain form (such as an inflection) and are these phonological, morphosyntactic, semantic or discourse-linked?

Acquiring a second language grammar necessarily involves determining how to assemble the lexical items of the target language. I argue that this will require that the learner reconfigure or remap features from the way these are represented in the L1 into new formal configurations on possibly quite different types of lexical items in the L2. This is a formidable learning task that goes far beyond the simple ‘switch-setting’ or ‘selecting’ metaphors that have sometimes been used to characterize the acquisition of a L2 grammar.

The outline of the remainder of the article is as follows: In the following section, I discuss the theoretical construct of ‘parameter’ and its relation to functional features, and how the nature and usefulness of the construct has changed over time. Specifically, I examine an assumption that pops up throughout the literature that, in fact, features are parameters; this is a terminological decision that appears to have contributed to the fragmentation of individual parameters into ever-smaller
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(i.e. micro) domains of coverage. Section III explores the interaction between features, functional categories and morpholexical items, and touches on how the feature matrices of functional categories are assembled in both L1 and L2 acquisition. Section IV discusses the rationale and plausibility of assuming that learners approach the problem of lexical-item assembly from the standpoint of how functional features are organized among the morpholexical items of their L1. There seems to be an underlying assumption both in comparative syntax and acquisition research that we somehow know exactly which morpholexical items to compare when analysing classes of functional features. This discussion is a reflection on the reasonableness of that assumption and the source of my rehabilitation of the useful phrase ‘contrastive analysis’. Section V focuses on an illustration of the complexities involved in the expression of plurality in English, Mandarin Chinese and Korean, and, specifically, how these differ from each other and the consequences for the acquisition of plural-marking in these languages. The comparison of plural-marking in these languages is situated with respect to the claims of the Nominal Mapping Parameter proposed by Chierchia (1998), which arguably fails to provide adequate empirical coverage of the data. Finally, Section VI concludes the article with some discussion of more general issues regarding the organization, availability and comparability of features in SLA. I warn the reader that my article title is apt: these are some thoughts on the nature of features that really only lead to further questions rather than answers.

II Features as parameters (and vice versa)?

The notion of a limited, universal inventory of features from which (acquirers of) particular languages select is closely tied to the theoretical construct of ‘parameter’ developed in the Principles and Parameters framework, and reflects how the definition and description of parameters have evolved in recent years. Since their introduction into syntactic theory nearly three decades ago, parameters have always been conceived of as a finite set of options restricting the possible range of syntactic variation across languages (e.g. Chomsky, 1981). Parameter theory thus initially held great potential within SLA research for more precisely characterizing differences among grammatical properties of the target language and a learner’s native language. In other words, the acquisition of (or failure to acquire) an L2 grammar could be
descriptively modelled by the researcher in terms of a learner’s degree of success in ‘resetting’ one or more parameters from the L1 value to those of the target language. (For a characteristic statement to this effect, see, for example, Haegeman, 1988: 255; and, for some discussion of it, Lardiere, 2008.)

The discovery of parameters with apparently-associated clusters of properties (‘deductive consequences’) – for example, the pro-drop parameter (Rizzi, 1982; Hyams, 1986), the polysynthesis parameter (Baker, 1996) or the noun-compounding parameter (Snyder, 2001) – seemed an especially promising step toward achieving greater descriptive and even explanatory adequacy. If the setting of the value of one parameter could deterministically produce a cascade of related effects, the task of language ‘learning’ would be correspondingly eased (Hyams, 1986; Nishigauchi and Roeper, 1987). Therefore, theoretical analyses involving parametric contrasts are in principle highly relevant to language acquisition. However, the promise of the deductive-consequences conjecture has arguably remained largely unfulfilled, both from a theoretical and an acquisition perspective (for some discussion, see Baker, 1996: 7–9; and, for a review of relevant research findings in SLA, see Carroll, 2001: 155–64).

To date there has been little consensus on a precise theoretical characterization of what sort of object could in principle count (or not) as a possible parameter. Earlier-formulated parameters, such as the head-direction parameter or the particular bounding nodes associated with subjacency, were associated with a list of UG-invariant principles (e.g. phrases have heads that select complements in a particular order; wh-extraction is subject to particular locality constraints). Throughout the literature one finds parameters of quite disparate types. Some parameters, for example, are directional or configurational; most are binary but some are non-binary; some involve the existence or absence of various constructions or morphological processes (e.g. noun–noun compounding), the presence or absence of certain features, or whether those features are obligatory or optional, or whether they are realized as bound affixes or not, or whether certain constituents (such as subject pronouns) are pronounced or not, and so on.

In the meantime, we have witnessed a more general, empirically-based erosion of the previous theoretical desiderata that the set of parameters should ideally be small (for optimal learnability) and that each parameter should ideally be associated with a cluster of deductive
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consequences (also for optimal learnability). One of the plainest statements to this effect is found in Kayne’s (2005) extensive discussion of the role of parameters in current comparative syntactic theory. Kayne views all cross-linguistic syntactic differences as (micro)parameters, regardless of whether they are associated with any cluster of related effects or not (p. 6). He suggests that (some of) the clusters of syntactic properties that were under discussion 25 years ago may have been ‘too coarsely characterized’ and may need to be replaced by ‘a much finer-grained picture of syntax’ (p. 11).

Reflecting with some alarm on the increasing fragmentation of parameters in linguistic theory, Lightfoot (1997: 254) observes that parameters:

would need to be more general, more simple and very different from what one sees in the literature […] Some linguists have come to equate parameters with superficial ‘differences’ among languages. This runs the risk of allowing parameters to proliferate and run out of control, and in fact parameters have become more and more fine-grained, each one capturing smaller ranges of phenomena.

Similarly, Baker (1996: 7) observes that:

[T]he very idea of a parametric cluster is called into question, and microparameters become no more general than the constructions of traditional grammar. As such, they are not parameters in the original sense at all, in spite of the fact that the terminology is retained … Indeed, there is a growing body of work that responds to [this trend] by radically paring back the idea of a parameter, to the point of near nonexistence.

Moreover, Baker points out that it is not clear even how to count members of a parametric cluster. For example, he writes, does the fact that the equivalents of both who and what remain in situ in Chinese count as one fact or two? He adds that there is probably no principled way to answer such questions (p. 35).

Because, as mentioned earlier, all cross-linguistic syntactic differences are located in functional categories (or their associated lexical items), which in turn are viewed as sets of functional features, we find statements in the literature that appear to directly equate parameters with these features, and the process of parameter-setting with the selection and assembly of features into language-specific lexical items. Chomsky (1998: 13), for example, writes:

[A]cquiring a language involves at least selection of the features [F], construction of lexical items LEX, and refinement of C_{hl} in one of the possible ways – parameter setting.

Baker (1996) notes that, whereas a single macroparameter distinguishes polysynthetic languages from non-polysynthetic ones, polysynthetic
languages differ from one another only in microparameters, that is, ‘only in features that can be attributed to idiosyncratic morpholexical properties’ (p. 9). And from Kayne (2005): ‘The hypothesis that syntactic parameters are invariably features of functional elements does not imply that every functional element is associated with some parameter, but that additional hypothesis is a plausible one that I would like to entertain’ (p. 11).

Let us consider a specific example discussed in Kayne (2005) and described by him as ‘a reasonable enough parameter’ (p. 5). English has degree adverbs such as enough, too, so and how that quantify adjectives, as in rich enough, too rich, so rich, how rich. Of these, as seen above, only enough follows its associated adjective; the others precede it. French also has a corresponding set of degree adverbs; however, the French equivalent of ‘enough’, assez, does not differ in its position from the rest of the set but rather precedes adjectives just like the others (assez riche, trop riche, etc.). According to Kayne, the parameter in question here is that ‘English enough plausibly has some feature that induces movement of the adjective to its left; French assez plausibly lacks that feature’ (p. 5).

It is not clear what sort of EPP-like feature or Agree relation (or whatever forces movement of the associated adjective) for this particular degree adverb is being satisfied that would not also hold for the other degree adverbs in English (or French). More to the point, why this particular lexical item induces movement of the adjective whereas similar ones do not remains unexplained; and without just this sort of explanation, the construct of parameter does little work for us either within comparative syntactic theory or in a theory of language acquisition. In this case, the mystery feature that induces movement of the adjective may well be selected from among a universal set of features that is then somehow associated with this particular English lexical item as part of UG-sanctioned cross-linguistic (and intra-linguistic) variation. Quite obviously, the word order of various degree elements relative to adjectives is indeed a detectable difference between English and French (and among English degree adverbs as well) and must be learned. Referring to this unknown feature of this particular single lexical item as a ‘parameter’, however – as if it were a choice point that could render certain grammatical properties of English somehow ‘easier’ to learn in some deterministic sense – arguably only further clutters our descriptive landscape
with no discernible benefit for either the researcher or the language learner.\textsuperscript{2}

In sum, the basic unit of currency for describing differences between languages has been effectively ‘exploded’: i.e. reduced to the level of individual abstract features, in order to gain better empirical coverage of the data. Travis (2008) points out that, whereas such features have the power and flexibility to offer a more fine-tuned account for all the ways in which languages differ, we should nonetheless ‘be suspicious of anything that provides such an apparent endless set of possibilities’ (p. 45).

Parameterization is the theoretical device that should in principle alleviate this concern, by imposing highly restrictive, biologically constrained limits on the ‘apparent[ly] endless’ ways in which features can be assembled cross-linguistically. However, to date the goal of defining these limits has remained elusive.

In Section V, I briefly touch on how a particular parameter – the Nominal Mapping Parameter – apparently fails to provide adequate empirical coverage for the language data in question, and thus would actually mislead a hypothetical second language learner who managed to ‘reset’ it. More generally for our purposes – since the theoretical construct of parameters appears to add little of any substance to explaining SLA – I suggest that, at least for now, the notion is at best distracting. Instead, we require descriptions of lexical items and functional categories primarily in terms of their features and, following Travis, of possible constraints on the assembly of features, assuming features to be the primitive descriptive atoms of language (\textit{pace} Baker, 2001, who makes this claim for parameters).

\section*{III Just what do we mean by lexical items and functional categories?}

Over the past two decades, the breaking up of parameters into ever-larger numbers of ever-smaller pieces, as discussed above, has taken place concomitantly with a similar process among functional categories. The

\textsuperscript{2} Regarding the apparent lack of clustering effects or ‘degree of drama’ associated with this hypothesized parameter, Kayne (2005: 6) writes that ‘minor in this sense is perfectly compatible with ‘theoretically important,’ if, for example, the parameter(s) in question should turn out to tell us something important about the general status of parameters in UG, and/or (as in the case of \textit{enough}) about the general question of how exactly movement is triggered.’ Implicit in this view lurks, of course, an interesting question: At what level of (biolinguistic) abstraction should we pursue an analysis of this type of ‘minor’ idiosyncratic descriptive fact? (And how could we decide?)
proposed inventory of possible functional categories has proliferated such that the functional features once associated with broad categories such as CP, IP or DP have since become much more finely differentiated, with smaller sets of features or even a single feature heading each functional category in a more richly-articulated phrase structure designed to fully capture the possible hypothesized (micro)parametric differences between languages. (See, for example, Pollock, 1989; Rizzi, 1997; Hegarty, 2005). To the extent that this development is empirically motivated, it is not unwarranted. However, it forces us to rethink certain questions that have animated the field of generative (second) language acquisition for many years, one of the most obvious being: What do we think we mean by ‘the acquisition of functional categories’? Consider, for example, one well-known possible expansion of CP into the following subcategories, originally proposed for Italian:

1) The structure of the left-periphery (CP) of Italian (Rizzi, 1997):
   ForceP > Topic P > FocusP > TopicP > FiniteP

Since the acquisition of a higher category is generally assumed to entail the acquisition of the lower ones as well, acquisitionists find themselves in something of a dilemma when the acquisition data appear to show that a learner has some knowledge of a higher category (e.g. ForceP, as exhibited in the production of imperatives or questions), without producing functional elements that concomitantly exhibit knowledge of intermediate categories, such as those involving topic or focus discourse-related functions in the more highly-articulated structure (for an example, see Grinstead, 1998; and discussion by Montrul, 2004a). In this case, the researcher’s dilemma may be resolved by hypothesizing that material that ‘should’ go into a higher category such as ForceP, is actually projected in a lower one, such as FinP, leading to a blurring of the distinction between the category labels and the type of lexical items each functional category can be associated with.3

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3 Pulleyblank (2006: 21) makes the claim for phonology that children learning a language construct and label segment classes, instead of having a ‘predefined set of UG-supplied labels’. Assuming that all learners have access to the fundamental recursive operation Merge, the ‘labelling problem’ noted above for functional projections would be alleviated if the same sort of argument could be made for syntactic structure, namely that children project (unlabeled) structure as needed, gradually constructing and classifying language-specific functional categories (as suggested by Hegarty, 2005) over the course of development rather than starting off with a predefined set. (See the following note as well.) In L2 acquisition, of course, learners arguably do start off with a ‘predefined set’ of functional categories, i.e. those of the L1, as touched on in the following section.
The splitting up of IP has been even more dramatic. Webelhuth (1995: 76) provides a list of 16 various ‘exploded’ Infl categories proposed in the syntactic literature between 1989 and 1992. Cinque (1999) argues for a fixed, universal hierarchy of over 30 clausal functional projections, the specifiers of which may host adverbial expressions whose semantic features are compatible with the semantic feature of the functional head. What would it mean now, therefore, for researchers to argue that a young child or an adult L2 learner has ‘acquired CP’ or ‘acquired IP’? In light of developments in linguistic theory, it is not clear that the question could now be even considered a coherent one, although 10 or 15 years ago many pages of this and other journals were dedicated to trying to answer it. Then, any sign of knowledge of auxiliaries, agreement, tense marking, verb raising, proper NEG placement, nominative case-marking, etc. was considered possible evidence for the learner’s representation of the category IP. Instead, the question must now be posed in terms of much more specialized (possibly uniquely specified) feature matrices.

In a feature-based theory of phrase-structure building, functional categories are hierarchically ordered bundles of features, or feature matrices. Because functional category features ‘match,’ ‘check’, or ‘value’ (depending on the specific version of the theory) the syntactically relevant features of language-specific lexical items (including inflectional morphemes) in a language-specific derivational order, the composition of functional categories across languages must be flexible to some extent (see, however, footnote 4; compare Cinque, 1999). In other words, the feature matrices of functional categories must also be assembled for each language.

In English, for example, under one version of minimalist theory, the functional category ‘T’ will have to include at least an EPP diacritic, the values [±past], and – just in case the value is [–past] (and/or there are no modal auxiliaries, which in English do not bear agreement) – the uninterpretable/unvalued phi-features [uPerson] and [uNumber].

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4 Cinque (1999) makes the very strong claim that all of these functional projections are present at all times in every language, regardless of whether or not they are filled with lexical content. This claim seems to entail that the (semantic) feature or set of features associated with each functional head is also considered to be universal (although not necessarily every possible value associated with each feature). For compelling arguments against this ‘cartographic’ view and a proposal for a more strictly derivational approach to phrase structure building, see Zwart (2007). As pointed out by Webelhuth (1995), Hegarty (2005), Zeijlstra (2006) and others, the universal inventory of functional categories and the extent to which these can vary cross-linguistically is currently a lively area of investigation.
as well. However, T in English will not have to include [uGender], since in English there is no subject–verb agreement with respect to gender. In other languages, of course, there can be such gender agreement (e.g. Russian), just as there can be modals that agree with their subjects (e.g. German), and past tense as well as non-past tense verb agreement with subjects (e.g. Spanish).

Syntactic theory may choose either to embed multiple layers of features within a single functional category (IP) or atomize such Infl categories; e.g. introducing AgrS (Pollock, 1989; Chomsky, 1995) or even individual Person, Number and Gender projections (Shlonsky, 1989: 12). No matter how the functional category matrices are composed, their features must be indexed to particular lexical items (and to vocabulary items, in a Distributed Morphology framework5), that is, to the actual sound–meaning pairings that in context constitute the input to language learners. In other words, functional categories must be assembled on the basis of features extracted from sound–meaning pairings available to the learner in the linguistic environment. Once these items are assembled, speakers apparently do not need to repeatedly access the subset of features [F] selected by their language in the course of any particular derivation, but only those particular lexical items that instantiate the required features (Chomsky, 1998: 13).

The magnitude of the task of inductively mapping morpholexical items that occur in the input in a particular linear order to functional feature matrices should not be underestimated. Kayne (2005) provides a list of over 40 category-types of possible (functional) lexical items (e.g. complementizers, modals ‘of different sorts’, tense morphemes, aspectual morphemes, person morphemes, number-agreement morphemes, negation morphemes, noun-class markers, case morphemes, demonstratives, definite and indefinite articles, quantifiers, classifiers, wh-words, conjunctions, prefixes ‘of all sorts’, various derivational suffixes ‘with syntactic import’, and so on). Within each type of functional category there may be various subcategories and/or

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5 In Distributed Morphology, there is a crucial distinction between ‘lexical items’, which are the feature bundles on terminal nodes after all syntactic computations have taken place, and ‘vocabulary items’, which are the phonological objects (specified for feature content and insertion context) that replace the lexical items at the point of vocabulary insertion in the morphology component. This distinction is required because a lexical item may be spelled out (i.e. replaced) by a vocabulary item whose features match all or only a subset of the (abstract) features of the lexical item on the terminal node; sets of related vocabulary items compete for insertion into a terminal morpheme slot on the basis of the closeness of this feature match. For further discussion, see Halle and Marantz (1993) and Embick and Noyer (2007).
several distinct morpholexical items, even within the same language. He acknowledges that this list is likely non-exhaustive and that an estimate of 100 functional elements (not just category-types, but the total number of various specific functional element types associated with each category) is likely ‘a low estimate’ (Kayne, 2005: 14). In fact, this estimate is likely to be far too low. Li and Thompson (1981: 105), for example, report that Mandarin Chinese has ‘several dozen’ classifiers. Each of these will pick out a particular set of nouns it may combine with in the syntax: a language-specific descriptive fact on a more or less similar level of analysis with the idiosyncratic/parametric placement of enough relative to other degree expressions in English and to assez in French mentioned earlier, or with any idiosyncratic feature of a lexical item that has syntactic effects (see Chomsky, 2001: 11). The number of distinct agreement morphemes across all verbal paradigms of a language with highly complex agreement is also likely to be very large: each morpheme bearing a particular combination of phi-features that must be associated in an agreement relation with a particular type of subject (or object) under a particular tense, mood or aspectual condition.

On the one hand, obviously not all types of formal features are selected by every language; many languages, for example, have no verb–object agreement or even subject–verb agreement. This mitigates the enormity of the mapping problem for the child acquiring an L1. On the other hand, the interpretational effects of some features may be associated with certain word orders rather than with particular distinct morpholexical items. Mandarin Chinese has no definite article, for example, but it does have demonstratives, and nominal expressions in certain configurations (presumably ‘raised to D’ in the syntactic computation; see Li, 1999; Aoun and Li, 2003) are interpreted as definite. So we must assume that the language selects a feature [+definite], associated at least with a D functional category. (I return in Section IV to a plural-marker in this language which is associated only with definite nominal expressions and thus presumably also bears a [+definite] feature.)

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6 Kayne proposes that each of these estimated 100 functional elements is associated with some (binary-valued) parameter and that the resulting 100 parameters are all independent of one another, admitting the possibility of a large number of syntactically distinct grammars, on the order of $10^{30}$, or 1 followed by 30 zeros. However, according to Kayne (2005: 14) this is not a problem for the language learner, who ‘needs only to be able to manage the task of setting the 100 parameters’.

7 Of course, the learner will also need to recognize allomorphic variation and to learn to ‘disregard’ the allomorphy with respect to the syntactic computation of the relevant morphosyntactic feature.
Hegarty (2005) proposes that children acquiring their native language build functional categories by composing the feature bundles associated with each category feature by feature. This allows for the possibility of the child’s projecting individual features, or non-adultlike combinations of features, as distinct functional categories that are quite different from those in the adult system (p. 11). For example, an individual feature such as [wh] could head its own projection in child grammar (i.e. as a ‘WhP’), whereas what Hegarty calls a ‘full interrogative CP’ in the adult system would bear both [wh] and [Q]. The consequence of projecting a partial feature bundle consisting of [+wh] but not [Q], according to Hegarty, could be a grammar with wh-fronting but not subject–aux inversion, resulting in the sort of sentences actually observed in child acquisition data, such as Why those blocks on there? or What she doing?. In such cases, the child has either simply not yet acquired the feature [Q], or else some limitations on working memory, representational resources or processing capacity prevents the child from bundling and projecting [Q] along with [wh]. Because functional categories are assembled feature by feature, argues Hegarty, we should not expect that their featural components will necessarily be uniform across developmental stages of (child) language acquisition, just as we do not expect them to be uniform across languages.

For (adult) SLA, the problem of assembling and projecting functional categories is not as likely to similarly stem from limited processing capacity or representational resources, as proposed by Hegarty (2005) for child L1 acquisition. Instead, the learner obviously brings to the SLA task a fully developed system of assembled lexical items and functional categories.

Consider, for example, the assembling of [wh] and [Q] features in SLA in comparison with Hegarty’s proposal for L1 acquisition outlined above. Choi and Lardiere (2006a; 2006b) and Choi (in preparation) investigate how adult native English speakers acquire the interpretation of wh-expressions in L2 Korean. Both Korean and

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8 Following Chomsky (1998), Hagstrom (1998) and Miyagawa (2001), among others, there are two distinct features associated with a wh-question: [wh] and [Q]. The [Q] feature is an interpretable feature in C associated with an interrogative clause type. The [wh] feature is an uninterpretable feature on a wh-phrase (following Chomsky, 1998: 44) with a matching feature on a functional category (C in English; possibly other categories such as T in a wh-in-situ language such as Japanese, following Miyagawa, 2001) that binds the variable in a wh-phrase; the wh-phrase restricts the possible objects in a set (e.g. people, things) (Miyagawa, 2001: 313). Some differences in how these features are realized in English vs. Korean are presented in the text that follows.
English select [Q] and wh-operator features (indeed, these are likely to be universally selected). Following S. Kim (1989), Nishigauchi (1990) and Aoun and Li (2003), it is assumed that Korean ‘wh’ words are variables that do not have an inherent wh-operator as English wh-words do. That is, whereas the wh-operator feature is assembled with the wh-lexical item in English (e.g. *what* = ‘wh, non-human thing’; *who* = ‘wh, person’, etc.), in Korean it is generated as a null operator in Spec, C. Unlike in English, the [+Q] or [−Q] interpretation of the Korean variable expression *mues* ‘non-human thing’ is determined by morphological particles inflected on the verb, as shown in the examples below; the [+Q] particle *-ci* licenses a wh-question reading in (2a), whereas the [−Q] particle *-ta* licenses a non-interrogative indefinite reading, as in (2b):

2) a. John-un Mary-ka *mues-ul sassnun-ci* an-ta
   "John knows what Mary bought"

b. John-un Mary-ka *mues-ul sass-ka-ta* an-ta
   "John knows (that) Mary bought something"

Now consider their English counterparts:

3) a. John knows [CP *what* [ø[+Q] [Mary bought *t*]].

b. John knows [CP *[that−Q] Mary bought something]].

The feature [−Q] is spelled out by the functional lexical item *that* in (3b), whereas the [+Q] feature of a wh-question in English is null. Another difference, of course, between Korean and English is that overt wh-movement occurs in the latter, presumably due to the presence of an EPP feature in C and the morphological inseparability of the wh-operator from the rest of the wh-expression which must be ‘pied-piped’ to Spec, C (Chomsky, 1998; Miyagawa, 2001.)

Choi and Lardiere (2006a) report on a study in which 80 adult native speakers of English at an intermediate proficiency level of L2 Korean were tested on their interpretation of Korean variable expressions, as distinguished by the contextual co-occurrence of either [+Q] or [−Q] morphological particles *-ci* or *-ta*, respectively, as illustrated in the examples in (2) above. The overall result was that the learners performed significantly better correctly interpreting Korean variable expressions in [+Q] rather than [−Q] contexts. In other words, native English speakers accustomed to representing the lexical integrity of wh-expressions
(i.e. with the wh-operator assembled as part of the wh-phrase, as in what or who) apparently failed to observe the interpretive contingency between the variable expression and the particular [±Q] morphological particle on the verb in Korean. Thus, they tended to interpret variable expressions such as mues in the sentences in (2) above as the [+Q] wh-expression ‘what’ even when they should have interpreted it as a [−Q] indefinite pronoun ‘something’.

The acquisition problem in this case involves the learner’s figuring out how the relevant features are realized in the target language. Both English and Korean select the [wh] and [Q] features required for generating wh-expressions, but these are assembled differently in each language. In English, both the wh-operator and [Q] feature are fused into a single lexical item: the wh-word (whose features are matched with the same features on the functional head C). In Korean, wh-expressions are variables and the wh-operator and [Q] features are realized on different lexical items. The results obtained suggest that English native speakers through at least an intermediate proficiency level were not yet sensitive to the contingency between sentential particle types and the appropriate interpretation of variable expressions in Korean.

Nonetheless, the correct interpretations of Korean variable expressions are ultimately acquirable. In a follow-up study (Choi and Lardiere, 2006b) that included English native speakers at an advanced-proficiency level of L2 Korean, four out of 24 highly-advanced learners (approximately 17%) perfectly correctly interpreted Korean variable expressions associated with declarative and question particles in both production and judgement tasks. It is a low but non-negligible percentage.9 Thus we have preliminary results that are at least compatible with the suggestion that the language-specific morphological differences in how features are assembled in lexical items present a true learning problem for L2 acquirers. Even if the same subset of relevant features [F] has been selected by the L1–L2 pair in question, learners must figure out how to reconfigure them into new language-specific lexical items in the target language. One of the greatest sources of difficulty may be transfer of the representations of how the same features are assembled in lexical items in the L1. It is to this issue of L1 influence that we now turn.

9 For an in-depth treatment of the acquisition by native speakers of English of Korean wh-in-situ expressions that includes much additional data and discussion, see Choi (in preparation).
IV The role of L1 knowledge in assembling the lexical items of the L2

There is yet another point of perhaps greater interest than parameterization with respect to the English/French enough/assez example cited earlier from Kayne (2005). As Kayne points out, microcomparative research between closely related languages or dialects is probably the closest we can get to approaching the ideal of a ‘controlled’ experiment in understanding (microparametric) syntactic variation, because there are fewer variables to be taken into account. On the other hand, comparative work in less closely related languages such as English and Japanese, he argues, ‘might lead almost anywhere, at the risk of making the comparative work not impossibly difficult but certainly more difficult’ (p. 9). Note that there is an implicit underlying assumption that the lexical items being compared in the example above – enough in English and assez in French (or too ∼ trop, etc.) – are in fact comparable; that is, they are near-exact cross-linguistic translational counterparts. Kayne is of course aware of this and, in fact, considers it an additional argument in favour of doing comparative research on more closely related languages, since in his view it is highly likely that such morpholexical correspondences between languages will be more ‘straightforward’ the more microcomparative the work (p. 24).

From our SLA standpoint, however, the native English speaker trying to learn Japanese (or vice versa) is not afforded this luxury and is in exactly the (‘not impossibly difficult but certainly more difficult’) situation Kayne describes. The sense that microcomparative work is likelier to yield more minimal contrasts between languages roughly accords with our intuitions (as articulated, for example, in early contrastive analysis research (Lado, 1957), or comparative hierarchies of difficulty (Stockwell, Bowen, and Martin, 1965), or learning-difficulty category ratings for native English speakers by the US Foreign Service Institute) that more closely related dialects and languages – presumably those with fewer formal differences and more straightforward (morpho)lexical correspondences – will be in some sense ‘easier’ to learn. Since relative or comparative ease of learning is not an issue in L1 acquisition – that is, young children learn the language of their community, whatever it is, equally ‘easily’ – one obvious assumption underlying notions of relative ease or difficulty in L2 acquisition is that the learner’s knowledge of the native language(s) constitutes the basis for comparison.
It is not the aim of this article to review the history of the role of L1 knowledge (‘transfer’) in SLA research of the past 50 years, ranging from the Contrastive Analysis hypothesis based on the work of Lado (1957) to the Full Transfer/Full Access hypothesis of Schwartz and Sprouse (1996). Instead, I focus here on the question of what constitutes a valid unit of L1–L2 comparison from the points of view of both the researcher and the second language acquirer. (These might in principle be quite different, unless the language acquirer also happens to be a linguist.)

What is the researcher’s theoretical unit of equivalence for describing the properties of the objects being compared? Within traditional contrastive analysis studies, it was ‘structures, pattern by pattern’; for example, English vs. Spanish ‘question patterns’ (Lado, 1957: 73–74). The notion of ‘patterns’ is a holdover from behaviourist psychology and makes little sense from a theoretical linguist’s point of view (although perhaps it might not be such a far-fetched notion from a learner’s perspective). Another unit of comparison, as discussed above, is parameters. I have already mentioned one particular way of framing the role of L1 influence within generative SLA research from the 1980s onward: as an issue of resetting parameter values from those of the L1 to those required by the target language. However, as mentioned earlier (citing Baker, 1996), although the terms ‘parameter’ and ‘parameter setting’ are still used today, they are (mostly) not used in their original, more explanatory sense in which associated clustering effects were posited to ameliorate the difficulty of a fine-grained, item-by-item inductive learning process (for additional discussion, see Carroll, 2001; Lardiere, 2007; 2008). In other words, although much generative theoretical and acquisition literature describes cross-linguistic variation in terms of ‘parametric differences between languages’, in the absence of a set of parameters or an intensional description of what can count as a valid parameter, it is not really clear how the terminology improves on simply ‘formal differences between languages’, especially if every difference is to be considered a parameter by definition.

More recent research has settled on functional features as the basic unit for comparing formal properties of the L1 and the L2, in terms of their selection (or not) from the universal inventory, their assembly into language-specific lexical items, and their role in computational operations such as triggering movement. For example, various recent proposals have attempted to predict the conditions under which features
of certain types (e.g. interpretable or uninterpretable) will ultimately fail to be acquired. In these proposals, the presence or absence of such features in the L1 determines whether they are acquirable in the L2. For example, under one type of proposal referred to variously as the Representational Deficit Hypothesis or Interpretability Hypothesis (Hawkins, 2003; Tsimpli, 2003; Hawkins and Hattori, 2006; Tsimpli and Dimitrakopoulou, 2007; or, in an earlier version, the Failed Functional Features Hypothesis; see Hawkins and Chan, 1997), uninterpretable features – such as the purely formal agreeing counterparts of interpretable features such as person and number – are claimed to be no longer acquirable beyond a hypothesized critical period. Unless such features were selected in primary (or early, pre-critical period) language acquisition, they are hypothesized to disappear from the learner’s UG inventory and to no longer be accessible; thus, the late L2 acquirer’s knowledge of the L2 with respect to those features is predicted to ‘permanently diverge’ from that of native speakers (Hawkins and Hattori, 2006: 271).

In other words, this is an example of an approach in which the acquisition of a second language is argued to be tightly constrained by properties of the L1; specifically, by the availability of features in the L2 that have not been selected in the learner’s L1. Its underlying premise (following recent linguistic theory) is that the features in question are universally atomic and equivalent, and therefore that descriptive analyses can make use of them to compare certain language phenomena and the extent to which those phenomena differ in the native language, the target language, and the learner’s interlanguage grammar. (I return to this assumption in Section VI.) Regardless of the ultimate disposition of the specific predictions made by the representational-deficit type of proposal (which several people, including this author, have argued against\(^\text{10}\)), it has the virtue of clearly defining the role of L1 knowledge in the ultimate acquisition of an L2 grammar.\(^\text{11}\) It moreover does so in terms of the most primitive and arguably most valid cross-linguistic units of comparison – features – that are currently available to us from

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\(^{10}\) See, for example, Prévost and White (2000); Goad et al. (2003); Montrul and Slabakova (2003); Archibald (2004); White et al. (2004); Hopp (2005); Goad and White (2006); Grüter (2006); Lardiere (2007); Valenzuela (2008), amongst others.

\(^{11}\) A different hypothesis with a clear statement of the role of the L1 in the initial state of L2 acquisition (both child and adult SLA) is the Full Transfer/Full Access (FT/FA) hypothesis of Schwartz and Sprouse (1996), according to which all L1 functional categories and their associated feature values
theoretical linguistics, thereby offering the possibility of finer-grained analyses required for better empirical coverage.

As mentioned above, it seems plausible to assume (and the feature re-assembly approach indeed rests on the assumption) that learners will look for morpholexical correspondences in the L2 to those in their L1, presumably on the basis of semantic meaning or grammatical function (the phonetic matrices will obviously differ). The particular cross-linguistic morpholexical correspondence I investigate in Section V is plural-marking in English, Mandarin Chinese and Korean. There are any number of other highly interesting languages one could compare in regard to the acquisition of plural-marking. These three languages were chosen to highlight the potential difficulties of appealing to a proposed parametric difference between ‘plural-marking’ languages on the one hand and ‘classifier’ languages on the other – the Nominal Mapping Parameter of Chierchia (1998) – in order to account for or facilitate the acquisition of one type of language by native speakers of the other.

V The assembly of lexical items: plural-marking in classifier languages

I The Nominal Mapping Parameter

Chierchia (1998) proposes that languages differ parametrically according to whether their nouns are:

- predicative ([+pred]), that is, denoting properties that must obligatorily combine with D to be realized as arguments; or
- argumental ([+arg]), denoting kinds that may appear on their own (i.e. without a DP projection) as bare NP arguments.

This proposal, known as the Nominal Mapping Parameter (NMP), typologically divides languages into three groups: NP[+pred, −arg] (e.g. Italian-type), NP[+pred, +arg] (e.g. English-type) and NP[−pred, +arg] (e.g. Chinese-type).

transfer and constitute the starting point for L2 acquisition; thereafter, positive evidence will enable learners to restructure their L2 grammars accordingly. Representational deficit-type theories differ from this in that they predict that the L1 plays a permanently constraining role through to the L2 developmental endstate despite available positive evidence (for certain types of features). As will be seen below, a feature-re-assembly approach follows and builds on FT/FA by assuming the ‘full transfer’ part and attempting to further develop the ‘full access’ part since my focus here is primarily on what is ultimately acquirable by highly advanced or endstate learners.
The properties particularly relevant to our discussion here are those related to the availability of a count/mass distinction. The [+pred] setting instantiates such a distinction and results in the availability of plural-marking and direct counting without the need for classifiers; in [–pred, +arg] languages, on the other hand, all nouns are considered inherently plural mass nouns and are thus predicted to lack plural-marking and to require classifiers for counting with numeral quantifiers. (Because English also has the [+arg] setting, plural and mass nouns can appear bare.) C. Kim (2005: 38) summarizes the typological properties as follows:

4) Nominal Mapping Parameter
   a. $N \Rightarrow [+\text{arg}, -\text{pred}]$ (Chinese)
      - free occurrence of bare arguments
      - all nouns are mass nouns
      - no plural morphology
      - generalized classifier system
   b. $N \Rightarrow [-\text{arg}, +\text{pred}]$ (French, Italian)
      - no bare arguments
      - count/mass distinction
      - plural morphology
      - no generalized classifier system
   c. $N \Rightarrow [+\text{arg}, +\text{pred}]$ (English, Russian)
      - bare mass nouns and plural (and possibly singular) arguments
      - count/mass distinction
      - plural morphology
      - no generalized classifier system

The NMP predicts that languages with a generalized classifier system should not have either a count/mass distinction or plural-marking, because all nouns in these languages have a mass-type denotation in the lexicon. Several authors have argued that at least some aspects of this prediction are not supported, either regarding the existence of a count/mass distinction, the availability of plural-marking, or both (e.g. Cheng and Sybesma, 1999; Li, 1999; Kwon and Zribi-Hertz, 2004; Nakanishi and Tomioka, 2004; C. Kim, 2005).

In the sections that follow, I outline in some detail – the sort of detail I think is needed – a comparison of properties of plural-marking in English, Mandarin Chinese and Korean, along with a few studies that have examined the L2 acquisition of plural-marking in these languages.¹² My goal is not to directly evaluate the NMP (in fact, I assume it is

¹² For a detailed comparison with Mandarin Chinese of relevant properties of the Japanese plural-marker -tachi, see Nakanishi and Tomioka (2004).
incorrectly formulated, based on the references cited above), but rather to discuss characteristics of (some of) the features of plural-marking in these languages from the potential perspective of a native speaker of one type of language faced with establishing a likely morpholexical counterpart for number-marking when acquiring a language of another type. For the researcher, there are interesting questions that arise with respect to what we mean by a ‘plural feature’ and how we determine whether a language has selected one or not. For the second language learner, on the other hand, the task at hand is one of identifying one or more lexical items over which to redistribute the features associated with a particular functional element in the L1 (as illustrated earlier for the L2 acquisition of the interpretation of wh-expressions in Korean by native English speakers), as well as acquiring new language-specific configurations of features as these are assembled in the targeted lexical item(s) of the L2.

2 Comparison of English and Mandarin plural-marking

Consider the Mandarin Chinese (henceforth, Chinese) sentences in (5), from Li (1999: 78):

5) a. wo qu zhao haizi  
   I go find child  
   ‘I will go find the/some child/children.’

b. wo qu zhao haizi-men  
   I go find child-PL  
   ‘I will go find the children.’

The noun *haizi* (‘child’) in (5a) is vague or neutral regarding number, unlike its counterpart in (5b) which is suffixed with *-men* and explicitly denotes more than one child. At least in part because of its optionality and restricted distribution, not everyone accepts that Chinese even has Number or, more specifically, that Chinese has selected a [+plural] feature from the ‘universal inventory’ of features. As a generalized classifier language, Chinese is predicted by the nominal mapping parameter not to have pluralization. Iljic (1994) and Cheng and Sybesma (1999) argue that the ‘plural’ suffix *-men* in Chinese is not a ‘true’ plural but rather a collective marker for the following reasons:

- it is not obligatory, except on plural personal pronouns as shown in the paradigm in (6):

   \[\text{5a. } \text{wo qu zhao haizi} \quad \text{I go find child} \quad \text{‘I will go find the/some child/children.’} \]
   \[\text{5b. } \text{wo qu zhao haizi-men} \quad \text{I go find child-PL} \quad \text{‘I will go find the children.’} \]
6) Personal pronouns in Mandarin Chinese:

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>wo</td>
<td>wo-men</td>
</tr>
<tr>
<td>2nd</td>
<td>ni</td>
<td>ni-men</td>
</tr>
<tr>
<td>3rd</td>
<td>ta</td>
<td>ta-men</td>
</tr>
</tbody>
</table>

- its use with nouns other than pronouns is restricted to humans;
- unlike languages with a ‘true’ plural-marker, the suffix *-men* cannot be used with a quantifier (7):

7) * san-ge  xuesheng-men
   three-CL student-PL
   ‘three students’

- when used with proper names, as in (8a) below, its meaning is ambiguous between a plural reading (8b) and a collective reading (8c).

8) a. XiaoQiang-men shenme shihou lai?
   XiaoQiang-MEN what time come
   ‘When are the XiaoQiangs [= people named XiaoQiang] coming?’

b. ‘When are the XiaoQiangs (= people named XiaoQiang) coming?’

c. ‘When are XiaoQiang and the others (= a group represented by XiaoQiang) coming?’

However, Li (1999) argues against treating *-men* as a collective marker, suggesting that it does have properties of a plural morpheme, even if these are not quite the properties of a ‘regular’ plural morpheme (p. 80). For example, in sentence (8a) above, not only can XiaoQiang have a plural reading as shown in (8b), but (8b) is the preferred (and for some speakers, the only) available reading;14 furthermore, a collective interpretation is ruled out when *-men* is suffixed to (definite) common nouns rather than proper names:

9) * zhe-ge/na-ge ren-men15
   this-CL/that-CL person-PL
   ‘this/person and the others’

---

13 An exception to this restriction is allowed for postnominally quantified pronouns and proper names (Li, 1999: 83).

i. wo dui ta-men san-ge (ren) tebie hao
   I to them three-CL (person) especially good
   ‘I am especially nice to them three.’

ii. wo dui XiaoQiang-men san-ge (ren) tebie hao
    I to XiaoQiang-PL three-CL (person) especially good
    ‘I am especially nice to XiaoQiang them three persons.’ ~ ‘the three XiaoQiangs’

14 According to Li, the preferred form for a collective reading for (8c) in the text above is XiaoQiang tamen (‘XiaoQiang them’).

15 A plural reading is possible when the noun suffixed with *-men* co-occurs with the demonstrative ‘augmenting’ quantity suffix *-xie* (for discussion, see Li, 1999: 88); see example at foot of next page.
Additionally, a noun suffixed with -men can co-occur with a distributive element dou as in xuesheng-men dou likai le (‘each of the students has left’). Li observes that this ‘raises questions as to exactly what ‘collective’ (referring to a group) means’, since a collective group is not compatible with individuals, and yet the use of distributive dou must necessarily involve individuals (p. 80). Thus, -men really does appear to be some kind of plural-marker (and I have glossed it as ‘pl’ throughout).

One of the most striking differences between plural-marking in Chinese and English is that, in Chinese, nouns suffixed with -men must be interpreted as definite. In English, on the other hand, plural-marked nouns may be either definite or indefinite, depending on the independent presence of determiners. Thus, the Chinese sentence shown earlier in (5b), repeated below as (10), cannot mean ‘I will go find (some) children.’

10) wo qu zhao haizi-men
   I go find child-pl.
   ‘I will go find the children.’
   # ‘I will go find (some) children.’

Li (1999) analyses the difference between Chinese and English plural-marking in terms of where the plural-marker attaches to nouns, in D for Chinese and in N for English. That is, when a common noun has been rendered definite by moving from N to D in Chinese, it can be suffixed with -men. According to Li, the [+plural] feature is generated in Num in both languages, but in Chinese must raise to D (p. 88). (Pronouns and proper names, which can also be suffixed with -men, are inherently definite and thus considered to be base-generated in D; see note 13.) Li’s hypothesized nominal structure for Chinese is shown in (11) on the next page.

15 continued

zhexie/naxie xuesheng-men
these/those student-pl.
‘these/those students’

16 I use the number sign # to mark an unavailable interpretation.

17 Note that bare common nouns in Chinese can be interpreted as definite (and plural) if they are raised from N to D (example from Li, 1999: 82):
xuesheng lai le
student come prt
‘The student(s) came.’

Conversely, Noun+Num expressions that cannot raise to D because that position is already filled (e.g. by a compatible demonstrative form such as zhexie ‘these’ or naxie ‘those’) may be affixed with -men as long as there is no intervening classifier (example from Li, 1999: 88):
lao1shi dui zhexie/naxie xuesheng-men tebie hao
teacher to these/those student-pl. especially good
‘The teacher is especially nice to those students.’
If a Classifier head (e.g. san-ge ‘three-cl’) intervenes between N and D, however, then N-to-D raising is impossible, and the noun cannot be suffixed with -men, thus (correctly) ruling out quantified plural nouns such as the example in (7) above: *san-ge xuesheng-men (‘three-cl student-pl’). As illustrated in (12), xuesheng (‘student’) cannot raise to Num in order for the plural feature to be realized (as the suffix -men) because the head noun cannot move across another head Cl (Li, 1999: 87):

Not surprisingly, there is little consensus among linguists about how to classify and theoretically account for the observed data. Aside from the usual differences in implementing the particular mechanisms of specific versions of generative syntactic theory, there arise even more fundamental questions: If a language has productive plural-marking but does not require it obligatorily, has it actually selected the feature [+plural] from the universal set of features? Or what about the fact that plural-marking is productive but restricted to only a subset of noun types in Chinese, i.e. those that are also [+human]? In other words, what are the specific criteria that we should use to determine whether a language has selected a particular feature? To some extent this might be viewed as a methodological issue, along the lines encountered in SLA research with respect to deciding on criteria for whether we think a learner has acquired such a feature or not (e.g. some arbitrary percentage use in obligatory contexts).
Additionally, within a more recent minimalist perspective, we might ask: Is [+plural] an interpretable feature? Of course there is a difference in meaning between book and books, suggesting that it is. However, in the context of a quantified expression such as three books, it is also conceivable that plural-marking may be the spell-out of a formal agreement feature, and in that context possibly uninterpretable (i.e. unvalued until it enters into an Agree relation with the interpretable non-singular or ‘more than one’ quantity denoted by the lexical item three). And if that should turn out to be the case for English, then should we expect to analyse plural-marking similarly in Chinese?

Regardless of how comparative syntax resolves such theoretical questions, note that a native speaker of English who is learning L2 Chinese is apt to seek and settle on a likely candidate form in Chinese that appears to be the closest functional equivalent to English plural-marking, namely, -men suffixation. That is, from a native English speaker’s perspective, Chinese will indeed appear to have selected [+plural]. The task facing the learner, specifically, is to construct the specific lexical items – in this case a plural expression – from the features [F] selected by the target language (following Chomsky, 1998). The plural feature in both English and Chinese – luckily for the learner – is realized as a suffix on nouns. In Chinese, however, plural suffixation is tightly associated with the features [+definite] and [+human] in a way that it is not in English; that is, if a common Chinese noun is plural-marked, it must also be definite and human.\(^{18}\)

Furthermore, the particular conditioning environments for the expression or interpretation of the feature must also be represented somehow. Plural-marking in English realizes a feature that is obligatorily called on to agree with a quantifier denoting ‘more than one’, a context in which corresponding plural suffixation on common nouns is explicitly prohibited in Chinese. In other (appropriate) contexts, plural-marking in Chinese is optional, requiring the learner to acquire knowledge of the pragmatic conditions under which plurality is most felicitously expressed. This latter kind of problem has been argued as likely to result in ‘residual indeterminacy’ in the learner’s knowledge (or processing) of interface conditions for syntactically-licensed elements whose distribution is pragmatically determined (Sorace and Filiaci, 2006; see also Montrul, 2004b; Serratrice et al., 2004).

\(^{18}\) Hsu (1994: 170) reports that the Chinese pluralizing suffix -men is occasionally extended to non-human animate nouns such as dongwumen (‘animals’), goumen (‘dogs’), and maomen (‘cats’) in the newspaper corpus data she examined, although this extension is ‘still rare’. 
Assuming that full transfer holds for the grammatical features of lexical items, we might suppose that a native English speaker acquiring L2 Chinese is initially likely to overgeneralize the applicability of plural-marking in Chinese. By overgeneralize, I do not mean (exactly) over-produce, as there might be independent factors mitigating against the consistent production of inflectional morphology anyway. But in cases where the plural affix is produced, its range of applicability might be predicted to be too broad, extending, for example, to indefinite contexts. (In the following section, I briefly review a study that has tested this supposition for native English speakers acquiring L2 Korean, which has a similar – though apparently more relaxed – restriction to animate nouns for plural-marking.) It is unclear to me what could force a developmental retreat from this overgeneralization, except for the native English speaker noticing that a plural form does not occur where one is expected (or would be expected based on transferring properties of the L1 grammar) (on indirect negative evidence of this type, see Chomsky, 1981: 8–9). If Li’s (1999) analysis is correct, then a native English speaker acquiring Chinese would also need to learn that, in addition to a [+plural] feature, -men also bears a [+definite] feature that presumably must be checked.

Lardiere (2007; 2008) discusses the acquisition of plural-marking in English by an adult native Chinese (Mandarin and Hokkien) speaker, Patty, in terms of a comparison with properties of the plural-marker -men in Mandarin Chinese. For a native Chinese speaker acquiring English, we would expect developmental undersuppliance of plural-marking, particularly since number-marking in the L1 is not obligatory. It is similarly not clear to me what could force a native Chinese speaker to relinquish non-obligatoriness or what would even constitute indirect negative evidence in this case.19 (Again, however, there could certainly be independent reasons for why plural inflectional morphology is only variably produced.20) On the other hand, positive evidence is indeed available to

19 An anonymous Second Language Research reviewer wonders why a native Chinese speaker acquiring English would have any difficulty relinquishing optionality given that English provides clear positive evidence for generalized (obligatory) plural-marking. In the presumed absence of negative evidence and assuming Full Transfer, it is not clear to me how a native Chinese speaker would reliably detect from the input a distinction between nouns that are simply (i.e. ‘optionally’) pluralized vs. nouns that would be ungrammatical without plural-marking. In other words, the reviewer’s view is that if the learner is able to observe that all (count) nouns in plural contexts happen to be pluralized, then they must be pluralized, which I am not sure is actually the case given Full Transfer.

20 Jia (2003) reports findings from a 5-year longitudinal study of 10 Mandarin Chinese native speakers acquiring L2 English plural-marking. She found that, whereas five out of six participants
indicate to the learner that, unlike in Chinese, plural-marking in English co-occurs with non-human, quantified and/or indefinite nominal expressions; so the learner should be able to acquire this knowledge. Case-study data from Patty are compatible with these expectations. It is clear that she has acquired knowledge that English plural-marking can co-occur with non-human, quantified and indefinite nouns and, in this sense, she has successfully ‘re-assembled’ the features associated with English plural-marking from the way they are organized in Chinese. However, her plural-marking in English is supplied in only roughly half of quantified obligatory spoken contexts and about 84% of quantified obligatory written contexts (for further details, see Lardiere, 2007).

3 Plural-marking in Korean

Despite its status as a classifier language, Korean also appears to select the feature [+plural], contra the nominal mapping parameter. Korean has a productive plural-marker -tul that, from the point of view of a native English speaker acquiring L2 Korean, might appear to be quite English-like in certain respects and, indeed, is apparently sometimes taught that way in Korean language classes, according to E. Suh (2008). It appears to productively suffix onto nouns to denote plural entities, as in (13):

with onset ages 5–9 attained ‘mastery’ of plural-marking defined as 80% suppliance in obligatory contexts, only two out of four of the older participants (onset ages 12–16) did. She suggests that age of exposure and degree of immersion (and/or the switching of language dominance from Chinese to English) (indirectly) account for her results. However, there is no particular analysis of the results in terms of predictions based on a comparison with L1 features.

Bliss (2006), commenting on Jia’s findings, argues that the Failed Functional Features Hypothesis (FFFH) of Hawkins and Chan (1997) best accounts for why ‘only’ seven out of 10 learners in Jia’s study attained mastery of English plural-marking. Allowing that the 80% SOC (suppliance in obligatory contexts) criterion for ‘mastery’ (or ‘acquisition’) is acceptable, the results appear to constitute a glass-half-full/half-empty dilemma; I would argue that the fact that 70% of the L2ers (or even only 50% of the older learners) attained such mastery is a pretty good argument against the FFFH. However, Bliss, following Iljic (1994), assumes that Mandarin does not have a plural; see Li (1999) for explicit counter-arguments to that claim. Assuming (following Li, 1999) that Mandarin has indeed selected a plural feature (along the lines outlined in the text above), the FFFH makes no prediction at all in this case, as far as I can tell. Moreover, within the further refined and updated version of the FFFH – the Representational Deficit/Interpretability Hypothesis – only uninterpretable features not selected in the learner’s L1 are predicted to be unacquirable, and thus the testability of this prediction rests on the premise that the plural feature is uninterpretable, which is at least debatable.

21 My own Korean-language-teaching informants tell me that they stress the optionality of plural-marking in Korean vs. its obligatoriness in English and generally do not teach (until highly advanced-proficiency levels, if ever) characteristics of the so-called ‘extrinsic plural-marker’ (to be discussed shortly).
Bare nouns in Korean, like their counterparts in Mandarin Chinese, are underspecified for number (and definiteness), which may be inferred from context (C. Kim, 2005); contrast (14a–b) (examples from Park, personal communication):

   Peter-TOP yesterday student-ACC meet-PAST-DECL
   ‘Peter met (a/the) student(s) yesterday.’

   Peter-TOP yesterday student-PL-ACC meet-PAST-DECL
   ‘Peter met (the) students yesterday.’

From the examples in (14a–b), it may be inferred that pluralization in Korean, as in Chinese, is not obligatory. That is, although the overtly pluralized noun *haksayng-tul* (‘students’) in (14b) must be interpreted as plural, in (14a) the bare noun can also be interpreted as plural in context; i.e. an overt plural morpheme is not required for this interpretation. However, an exception to the underspecification of number is observed in case the noun co-occurs with a demonstrative determiner, in which case an unpluralized noun must be interpreted as singular (15a), and therefore plural-marking is obligatory to denote plurality in this context (15b) (examples from C. Kim, 2005: 89):

    Chelswu-TOP that/this student-ACC see-PAST-DECL
    ‘Chelswu saw that/this student (*those/these students).’

    Chelswu-TOP that/this student-PL-ACC see-PAST-DECL
    ‘Chelswu saw those/these students.’

C. Kim (2005) proposes that overt material in D, such as a demonstrative, forces the projection of NumP, and that an uninterpretable number feature in D must be valued by an interpretable [+plural] or [–plural] feature in Num. However, there appear to be other contexts for obligatory plural-marking in Korean that do not even require the presence of overt material in D. According to Kwon and Zribi-Hertz (2004: 136–37), plural morphology is obligatorily required in cases where a noun – e.g. *chaeg* (‘book’) in the examples in (16) and (17) – has been preconstrued within the discourse context as plural (16a); plural-marking is likewise disallowed in case of preconstrual as a singleton.
Thus behaving exactly as for English with respect to plural-marking (examples from Kwon and Zribi-Hertz, 2004):

16) [Context:
Minna-neun oneul-achim-e chaeg se gwon-gwa sinmun han
Minna-top today-morning-LOC book three cl-and newspaper one
bu-leul sa-ss-da.
CL-ACC buy-PAST-DECL
'Minna bought three books and one newspaper this morning.'
]

a. Chaeg-deul-eun naengjanggo-wi-e noh-yeo -iss-da.22
book-PL-TOP fridge-top-LOC lying -EXIST-DECL
'The books are on top of the fridge.'

b. % Chaeg-eun naengjanggo-wi-e noh-yeo -iss-da.
book-TOP fridge-top-LOC lying -EXIST-DECL
'The book is on top of the fridge.'

17) [Context:
Minna-neun oneul-achim-e chaeg han gwon-gwa sinmun se
Minna-top today-morning-LOC book one cl-and newspaper three
bu-leul sa-ss-da.
CL-ACC buy-PAST-DECL
'Minna bought one book and three newspapers this morning.'
]

a. % Chaeg-deul-eun naengjanggo-wi-e noh-yeo -iss-da.
book-PL-TOP fridge-top-LOC lying -EXIST-DECL
'The books are on top of the fridge.'

book-TOP fridge-top-LOC lying -EXIST-DECL
'The book is on top of the fridge.'

What about definiteness? As discussed above, plural-marked nouns in Mandarin Chinese must be construed as definite and as mentioned above, C. Kim (2005) suggests that there is a link between definiteness (i.e. a D projection) and plural-marking in Korean as well. However, unlike Chinese, pluralized Korean nouns do not need to be interpreted as definite. As shown by the examples in (18) and (19), pluralized nouns in Korean can also be indefinite (examples from Kwon and Zribi-Hertz, 2004: 134; Park, personal communication):24

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22 Kwon and Zribi-Hertz (2004) employ a different transcription system that romanizes -tul as -deul.
23 Kwon and Zribi-Hertz (2004) point out that data such as those in (16) and (17) above provide counter-evidence for the claim that Korean nouns such as chaeg (‘book’) have a mass denotation in the lexicon (and thus lack plural), contra Chierchia’s proposal discussed above.
24 For arguments that (unlike Chinese), -tachi plural-marking in Japanese can similarly be indefinite, see Nakanishi and Tomioka (2004). Unlike both Chinese (and, apparently, Korean), in Japanese the -tachi plural is ‘actually compatible’ with prenominal numeral+classifier phrases, particularly with numbers that are ‘big and not so exact’, e.g. 200-nin-i-zyoo-no gakusei-tati (‘200-cl-or more-gen student-pl’; pp. 119–20).
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many student-PL-NOM come-PAST-DECL
‘Many students came.’

19) i san-ey-nun namwu-tul-i manh-ta. (Park, personal)
this mountain-in-TOP tree-PL-NOM be.abundant-DECL communication
‘As for this mountain, there are lots of trees.’

Kwon and Zribi-Hertz point out that tul-marked NPs in Korean may indeed be interpreted as indefinite, and propose that the plural in Korean be construed as denoting an atomized (not collective), closed (extensional) set of entities, rather than an open, intensional class to which additional members are added (p. 151). As a consequence, they argue, Korean tul-marked NPs disallow generic, open-Kind readings (20a),\(^{25}\) inalienable binding (20b.ii), or narrow-scope readings (20c); they cannot be quantifier-bound (20d) and do not instantiate number agreement (20e); examples from Kwon and Zribi-Hertz (2004: 144–48; see their article for much more extensive discussion of these examples as well):

20) a. pendeo-gom(*-deul)-eun poyudongmul i-da
panda-bear (*-PL)-TOP mammal COP-DECL
‘The panda is a mammal’/ ‘Pandas are mammals’.

b. (i) Minsu-neun pal-eul deuleooleyo-ss-da.
Minsu-TOP arm-ACC raise-PAST-DECL
‘Minsu raised his arm(s).’ (literally: ‘Minsu raised arm.’)

(ii) Minsu-neun pal-deul-eul deuleooleyo-ss-da.
Minsu-TOP arm-PL-ACC raise-PAST-DECL
‘Minsu raised the arms.’ (literally: ‘Minsu raised arms.’)

*‘Minsu raised his arm(s).

c. Cholsu-neun jeonjiin-deul-eul manna-go sipeoha-n-da
Cholsu-TOP politician-PL-ACC meet-COMP want-PRES-DECL
(i) ‘There are some politicians that Cholsu wants to meet.’\(^{26}\)
(ii) ‘Cholsu wants to meet the politicians.’

d. i daehaggyo-ui gyosu-deul-eun jeonbu negtai-deul-eul mae-go dani-n-da.
this university-GEN professor-PL-TOP all necktie-PL-ACC tie-with walk.
around-PRES-DECL

---

\(^{25}\) Kwon and Zribi-Hertz disagree with C. Kim (2003), who interprets the following sentence as generic:

Italia-salam-deul-eun myeonglangha-da
Italy-person-PL-TOP cheerful-DECL
‘Italians are cheerful.’

A better translation, Kwon and Zribi-Hertz argue, would be ‘The people of Italy are cheerful’; that is, the presence of the plural-marker triggers construal of a closed set (‘the (various) people of Italy’) rather than an intensional description (‘whoever is Italian’) (p. 146).

\(^{26}\) Again, Kwon and Zribi-Hertz’s own translation of the indefinite plural interpretation in (20c.i) above is in contrast to that of C. Kim (2003)’s ambiguous one: ‘Cholsu wants to meet politicians.’
[Can only mean:] ‘In this university, all professors wear (several) neckties (at once).’
[Not, as in English:] ‘all professors wear ties’ = ‘every one wears only one at a time’
e. i salam-deul-eun uisa (*-deul) i-da
this person-PL-TOP doctor (*-PL) COP-DECL
‘These men are doctors.’ (Lit. ‘These people are doctor.’)

What about lexical feature restrictions on pluralization such as [+human] or [+animate]? Like English and unlike Chinese, pluralization in Korean is not necessarily restricted to human nouns. Song (1997) states that the plural-marker occurs ‘mainly’ with human nouns, less frequently with non-human animate nouns and ‘far less frequently’ with inanimate nouns (p. 206). However, there is apparently no lexical restriction on producing it with non-human and/or inanimate nouns, except for abstract nouns (e.g. huymang ‘hope’ or caywu ‘freedom’) and (as in English) on mass nouns (e.g. wuywu ‘milk’) (examples from Park, personal communication, citing C.-S. Suh, 1996). Although E. Suh (2007) mentions that pluralization is dispreferred on non-human nouns, her own Korean L2 acquisition study apparently showed no significant difference among native Korean-speaking controls in producing plurals on animals vs. humans, and C.-S. Suh (1996) states that -tul can be attached to both animate and inanimate nouns. Both Kwon and Zribi-Hertz (2004) and Park (personal communication) provide examples of pluralized inanimate nouns, as in the examples in (16) and (19) above pluralizing chaeg (‘book’) and namwu (‘tree’), as well as those shown below:

21) i kapi-ui uija-deul-eun peulaseutig i-ne! (Kwon and Zribi-Hertz, 2004)
this café-GEN chair-PL-TOP plastic COP-DECL
‘The chairs in this café are made of plastic.’

our school-NOM last.year-in building-PL-ACC a.lot-ADV build-PAST-DEC
‘Our school built a lot of new buildings last year.’
(Park, personal communication)

Kwon and Zribi-Hertz (2004) argue that, in fact, the Korean plural may combine with mass nouns such as molae (‘sand’) or gileum (‘oil’) to produce a derived meaning construed as a set of atoms, for example:

Geu-neun eongdeongi-e but-eun molae-deul-eul teol-eoss-da
he-TOP backside-LOC stick-REL sand-PL-ACC brush-PAST-DEC
‘He brushed off some sands [i.e. sand particles] which had stuck to his backside.’

They write that such Korean nouns seem even less strictly mass-denoting than their English or French counterparts, which is ‘especially unexpected’ under an assumption that all Korean nouns should be parameterized as having mass denotations in the lexicon (p. 152).
There do, however, seem to be *syntactic* restrictions involving animacy. In Korean, unlike Chinese, inanimate bare nouns may be pluralized, as shown in (23). (As mentioned above, -*tul* imparts an extensional, specific reading.)

\[
23) \text{Cip(-*tul*)-i} \text{ kangtwuk-wuyey tule.se-iss-ta.} \\
\text{house-*PL-NOM* bank-on stand-exist-DECL} \\
\text{‘(The) houses are standing along the bank.’ (Park, personal communication)}
\]

However, unlike English (which requires the plural) and rather more like Chinese (which prohibits it), there is in Korean a syntactic restriction on pluralizing quantified, classified inanimate nouns: Although in Korean these may be preceded – as in (24) below – or followed by a ‘weak’ (non-numeric) quantifier such as *mahnun* (‘many’) or *motun* (‘all’) (25), pluralized nouns may not be preceded by a numeric quantifier (26), or followed by a numeric quantifier and/or a classifier (27), unless in the latter case the noun is [+human] and classified (28) (all examples from Park, personal communication).

\[
24) \text{Manhun cip(-*tul*)-i ku kenchukka-eykey cie-ci-ss-ta.} \\
\text{many house(-*PL-NOM*) that architect-by build-PASS-PAST-DECL} \\
\text{‘Many (of the) houses were built by that architect.’}
\]

\[
25) \text{Wury hakkyo-ka caknyen-ey mahnum/motun kenmwul-*tul*-ul ci-ess-ta.} \\
\text{our school-NOM last.year-in many/all building-*PL-ACC* build-PAST-DECL} \\
\text{‘Our school built many/all the buildings last year.’}
\]

\[
26) \text{Twu cip(*-*tul*)-i ku kenchukka-eykey cie-ci-ss-ta.} \\
\text{Two house-*PL-NOM* that architect-by build-PASS-PAST-DECL} \\
\text{‘The two houses were built by that architect.’}
\]

\[
27) a. \text{twu cip(*-*tul*)} \quad b. \text{cip(*-*tul*) twu chay} \\
\text{two house(*-PL*)} \quad \text{house(*-PL*) two CL} \\
\text{‘two houses’} \quad \text{‘two houses’}
\]

\[
28) a. \text{twu salam(*-*tul*)} \quad b. \text{salam(-*tul*) twu myeng} \\
\text{two human(*-PL*)} \quad \text{human-*PL* two CL} \\
\text{‘two people’} \quad \text{‘two people’}
\]

In sum, whereas plural-marking in Korean is clearly not as free in its range of application as the English plural, it is also clearly less restricted than its counterpart -*men* in Mandarin Chinese.

Finally, we turn to what is referred to as ‘extrinsic’ plural-marking or ‘plural-copying’ in Korean. The examples discussed above all concern so-called nominal or ‘intrinsic’ plural-marking in which the plural-marker -*tul* attaches to a noun to render it plural, roughly as in many other typical plural-marking languages. However, in Korean,
if (and only if) a subject is pluralized, the morpheme -tul may also optionally attach (or ‘spread’) to various other constituents that are c-commanded by that subject within the same clause, including other nominal arguments (including mass nouns), adverbs, locative and other adpositional phrases, conjunctions, complementizers, and verb-final clause-type/illocutionary markers (Park and Sohn, 1993; Song, 1997; Park, in press). Morphologically, an extrinsic plural-marker (EPM) is affixed outside the case-marker (except for accusative-marked direct objects; see note 29), whereas for intrinsic plural-marking it is affixed directly to the noun before the case-marker. The examples in (29)–(34) are all from Song (1997; page numbers in parentheses following each example) and illustrate various types of constituents to which extrinsic plural -tul can attach.

29) Ai-tul-i mwul(-tul)-ul masi-ess-ta.29 (208)
child-PL-NOM water(-PL)-ACC drink-PAST-IND
‘The children drank water.’

30) Salam-tul-i ku30 ai-eykey(-tul) ton-ul cwu-ess-ta. (209)
person-PL-NOM the child-DAT(-PL) money-ACC give-PAST-IND
‘People gave the child money.’

C. Kim (2005) argues that extrinsic -tul is a distinct (homophonous) morpheme from the plural-marking (intrinsic) -tul discussed above, in part because its distribution is (obviously) different, as is its semantic function (to be discussed momentarily) as a distributive marker. Kwon and Zribi-Hertz (2004), on the other hand, argue for the ‘basic unity’ of the -tul morpheme, seeking to account for why the same morpheme may occur either NP-internally or NP-externally (p. 149). I include a brief sketch of it here because everyone agrees that it must be licensed by a [+plural] feature on the subject, and therefore must select or include a [+plural] feature – possibly uninterpretable – as part of its lexical feature composition. From an acquisition standpoint, an L2 Korean learner may well notice that the extrinsic form is identical to the intrinsic form and occurs only within the context of a plural subject, making it appear to the learner rather like some type of agreement marker.

An eagle-eyed reviewer noticed that the extrinsic plural marker (EPM) on mwul (‘water’) in example (29) appears to be affixed directly to the noun, preceding rather than following the accusative (ACC) case suffix. I have reproduced this example exactly as reported in Song’s article (1997: 208). However, according to Jong-Un Park (personal communication) as well as several additional Korean native-speaker informants with whom he consulted, the co-occurrence of the EPM with the ACC case-marker in (29) is ungrammatical, and the ACC case-marker itself should be omitted (as is also presumably the case for the example in note 32 below, also from Song, 1997). In fact, an intrinsic plural-marker could co-occur inside an overt ACC case-marker if the direct object were an ordinary pluralized count noun, but this is not possible for example (29) with the non-count noun mwul (‘water’; its being a non-count noun and thus non-pluralizable forces the -tul marker to be construed as the distributive extrinsic plural).

Song (1997: 209) glosses and translates ku as ‘the’ and refers to it as ‘the definite article ku’. Elsewhere in the literature it is glossed and translated as demonstrative ‘that’.
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31) Ai-tul-i kongwon-eyse(-tul) nol-ass-ta. (210)
   child-pl-nom park-loc(-pl) play-past-ind
   ‘The children played in the park.’

32) Ai-tul-i yongkamha-hi(-tul) nase-ess-ta. (211)
   child-pl-nom brave-adv(-pl) come.forward-past-ind
   ‘The children came forward bravely.’

33) Ai-tul-i kil-ul kennu-e(-tul) ka-ass-ta. (213)
   child-pl-nom road-acc cross-conj(-pl) go-past-ind
   ‘The children crossed the road.’

34) Ai-tul-i ku kicha-ka tochakha-ca(-tul) soli-lul cilu-ess-ta. (217)
   child-pl-nom the train-nom arrive-as.soon.as(-pl) noise-acc shout-past-ind
   ‘As soon as the train arrived the children screamed.’

The addition of the EPM in the examples above triggers a distributive reading; that is, it is used to distribute events, activities or qualities over the individual members of a set, rather than the set as a whole, and may also serve as a focus marker (Song, 1997: 205, 218). Looking again at the examples given above, a more precise interpretation for (29) would therefore be ‘For each of the children, it was water that s/he drank.’ The EPM indicates in (30) that the (same) child was given money by each member of the set of people of the subject;31 in (31) that the children played perhaps in different parks or at different times, but likely not together; in (32) the brave manner in which each and every member of the set carried out the act specified, but not how the set as a whole did; in (33) that the children crossed different roads or the same road at different times, but not together as a group. Song likewise suggests that a better translation for (34) would be ‘For each of the children, it was as soon as the train arrived that s/he screamed’ (p. 217).32

31 As mentioned earlier, extrinsic plural-marking occurs outside the case-marker on nouns; if -tul were affixed directly to the noun, preceding the case-marker in this example (i.e. ai-tul-eykey ‘child-pl-dat’), the interpretation would be ‘People gave the children money’ with ‘people’ ambiguously interpreted either collectively or distributively according to context.

32 Song (1997) argues (and Park, personal communication, confirms) that although it is ‘definitely fully grammatical’ for the EPM to spread simultaneously to all syntactically eligible constituents in a sentence, as shown in the following example, such multiple markers are ‘extremely rare or even contrived’ (p. 218):

Ai-tul-i kongwon-eyse(-tul) chinkwu-laang(-tul) culkepkey(-tul) nolay(-tul)-ul
child-pl-nom park-loc(-pl) friend-comit(-pl) cheerfully(-pl) song(-pl)-acc
pwulu-ko(-tul) siph-e(-tul) ha-ess-ta.
sing-comp(-pl) like-conj(-pl) do-past-ind
‘The children wanted to sing a song cheerfully with their friends in the park.’
An additional semantic complexity associated with extrinsic -tul is that it interacts with the lexical–semantic meaning of its predicates in a subtle but significant way. Park (in press) argues that if a predicate itself has an inherently collective meaning (e.g. mannata ‘meet’), then the function of extrinsic -tul will be to distribute the properties of the tul-marked constituent over multiple events rather than arguments. In the non-pluralized example shown in (35), because the (intransitive) predicate is an inherently collective one, a collective reading ‘there was a single event of Bill and Mary meeting together’ is completely natural in the absence of extrinsic -tul marking (35.i; from Park, in press), and a distributive reading is not possible:

   Bill-and Mary-NOM library-in meet-PAST-DECL
   (i) Collective: ‘Bill and Mary met (each other) in the library.’
   (ii) Argument distributive: ‘Bill and Mary each met somebody else in the library.’

With the addition of extrinsic -tul to the locative phrase, however, an event distributive reading is the only one available, because the inherently collective meaning associated with ‘meet (each other)’ still rules out an argument distributive interpretation as shown in (36.ii; from Park, in press):

36) Bill-kwa Mary-ka tosekwan-eyse-tul manna-ss-ta.
   Bill-and Mary-NOM library-in-pl meet-PAST-DECL
   (i) Collective: ‘Bill and Mary met (each other) in the library.’
   (ii) Argument distributive: ‘Bill and Mary each met somebody else in the library.’
   (iii) Event distributive: ‘There was an event of Bill and Mary meeting each other and the event of their meeting was repeated more than once in the library.’

Finally, several studies (e.g. Kwon and Zribi-Hertz, 2004; C. Kim, 2005; Park, in press) observe that extrinsic -tul is frequently used by speakers in colloquial contexts to signal the existence of a plural subject referent in utterances with null subjects (which are often likely to be imperatives, questions and exhortatives). C. Kim writes that ‘It is okay to have plural antecedents … but they sound a little redundant. It seems like tul prefers its antecedent to be a null topic rather than

The reason for the unlikeliness of a sentence like this, according to Song, is that extrinsic -tul also functions as a kind of pragmatic focus marker, serving to identify the focal element of an utterance, in which case we would not expect to find multiple foci.
an overt one’ (p. 126). Kwon and Zribi-Hertz (p. 149) observe that the contrast in (un)grammaticality between (37a) and (37b) suggests that the occurrence of the EPM is ‘required’ if the (null) subject is interpreted as plural.33

\[\begin{align*}
37) \quad \text{a.} & \quad \emptyset \text{ sugje-deul} \text{ ha-yeoss-ni-deul?} \\
& \quad \text{(you) homework-PL do-PAST-INT-PL} \\
& \quad (i) \ # \text{‘Have you (sg) done your homework?’} \\
& \quad (ii) \ ‘Have you people done your homework?’ \\
\text{b.} & \quad \emptyset \text{ sugje} \text{ ha-yeoss-ni?} \\
& \quad \text{(you) homework do-PAST-INT} \\
& \quad (i) \ ‘Have you (sg) done your homework?’ \\
& \quad (ii) \ # \text{‘Have you people done your homework?’}
\end{align*}\]

In sum, the descriptive facts of Korean plural-marking outlined above, if accurate, hint at the daunting (although ‘not impossibly difficult’) task confronting, say, a native English speaker learning Korean pluralization. First, the degree and nature of obligatoriness of plural-marking in these contexts will obviously differ from those of the L1. The learner will thus need to learn what constitutes an obligatory conditioning environment, a preferred or otherwise optional environment and a prohibited environment, contingent on both discourse-related (e.g. plural referent established in preceding discourse) and syntactic factors (e.g. co-occurrence with a demonstrative determiner entailing the projection of D and, presumably, NumP; co-occurrence with ‘weak’ quantifiers such as mahnun (‘many’), but not numeral-plus-classifier phrases, etc.). In Korean, unlike Chinese, a pluralized noun may be indefinite, but it apparently must also be construed as specific, unlike in English. There is also an animacy feature restriction just in case the noun is numerically quantified.

Our hypothetical L2 Korean learner will also be exposed, especially in naturalistic conversational environments, to the EPM -tul, and will (hopefully) notice that it occurs on constituents that are not typically

33 Kwon and Zribi-Hertz provide the example in (37a) above but do not elaborate on which constituents the EPM may or must attach to, nor do they explain why, in their next example, the use of the EPM is prohibited in reply to the following question:

Q. Kim gwajang-gwa Lee gwajang-eun yojeum wae an boi-neun-ga?
Kim department.head-and Lee department.head-top nowadays why NEG SEE-PRES-INT
‘How come Mr. Kim and Mr. Lee are not seen around the office these days?’

A. ø Nyuyog jijeom-e(‘*deul) chuljang jung i-sibni-da.
(they) New York branch-LOC(*-PL) trip in COP-HON-DECL
‘(They) are visiting our New York branch.’
pluralized in the L1, such as conjunctions, clause-type particles, adverbs and various types of adpositional phrases. On nominal arguments such as direct and indirect objects, the learner will have to notice whether -tul marking precedes or follows the case-marking affix, as that distinction can radically affect the interpretation of the utterance. Similar to agreement morphology (apparently), it will often signal to our learner that a null subject denotes a plural referent.

A native English speaker may plausibly recruit the required semantic feature(s) for interpreting Korean -tul not only from his or her representation of the English plural but also from features of other English lexical items (e.g. universal quantification/distribution from lexical items such as each or every, extensional specificity from the denotation of expressions such as of the). In other words, an L2 representation for the Korean lexical item -tul will have to be assembled feature by feature, together with the possible conditioning environments for the expression of those features. Because -tul marking also interacts with lexical semantic features in certain contexts, there is an opportunity for mis-steps if the lexical semantics of a selected lexical counterpart in the L1 does not exactly match that of the L2. Although we might reasonably expect whatever counts as conceptually animate to be similar for speakers of English and Korean, that does not automatically guarantee that its mapping to the linguistically-relevant morpholexical feature [+animate] will be identical across both languages, and there is almost certainly even more room for cross-linguistic discrepancies involving the lexical semantic features of verbs (as argued in Lardiere, 2003).

I have not been able to find any SLA studies that have looked specifically at the acquisition of extrinsic plural-marking in Korean, and only one that investigates the acquisition of intrinsic plural-marking in terms of a comparison with the features of plural-marking in the L1: that of E. Suh (2008). Suh tested 14 adult English speakers who were heritage language learners of Korean (divided into low and high proficiency groups) and 15 native-speaker controls on their mastery of the (intrinsic) plural morpheme -tul in various contexts, such as on human vs. animal nouns, and co-occurring with demonstratives or pre- and post-nominal cardinal numerals and classifiers.

Results from Suh’s elicited production task suggested that both heritage language groups had acquired knowledge of syntactic restrictions on the co-occurrence of -tul with classifiers (except for one low-proficiency heritage speaker who categorically produced it in all
plural contexts, as would be required in English). Neither the heritage language groups nor the native control group significantly differentiated between marking -tul on humans vs. animals (as mentioned earlier). The results from an acceptability judgement task revealed a somewhat different pattern: namely that the heritage speakers ‘were sensitive to -tul, but only in the specific [i.e. co-occurring with demonstratives; DL] contexts’ (p. 12), and it is not clear that the NS controls performed as expected, suggesting either a problem with the task or, according to Suh, possible evidence of language change in progress (p. 12). Suh reports that the low-proficiency heritage speakers did not produce -tul very often in specific contexts in the production task yet (correctly) exhibited a ‘strong requirement’ for -tul in these same contexts in the acceptability judgement task. They also (incorrectly) accepted -tul marking on classifiers, which Suh attributes to transfer from English (e.g. three box-es of x, although Suh provides no examples of this type of test item).

Suh’s own conclusions are that her findings demonstrate the complexity of testing for plural knowledge among Korean heritage language speakers (and her native-speaker controls) and the importance of using different tasks, reflected in the disparity of results on the two tasks she used (p. 250). Needless to say, this is an area obviously ripe for much more extensive experimental research, as there is a notable dearth of actual acquisition data.

VI Discussion

We see from the sketches above that English, Mandarin Chinese and Korean partially overlap with and yet differ from each other in regard to plural-marking. One can conclude that the plural in Korean, for example, is more like that in Chinese than in English in some aspects, more like English than Chinese in other aspects, and – with respect to unusual phenomena such as extrinsic plural-marking – not like either other language at all. In other words, the plural lexical items in these languages are assembled somewhat differently from each other, each selecting different co-occurring features – e.g. such as definiteness, specificity, (human/non-human) animacy – and different conditioning environments. Note that the Nominal Mapping Parameter is apparently of little use to us (or the learner) here, as it broadly predicts that we should not even encounter individual languages that include (generalized) classifiers and a count/
mass distinction and plural-marking. In this case, as argued by C. Kim (2005) and others, Korean apparently offers a true counter-example and, if Li’s (1999) analysis is correct, so does Mandarin.34

Those invested in the validity of a parameter such as the NMP are likely to (quite rightly) question whether a particular language actually meets its conditions; that is, whether it truly has generalized classifiers, or truly has plural-marking. In so doing, the field may advance insofar as it is pushed to further refine its definitions of objects such as ‘classifier’ and ‘plural feature’, or what it exactly means for a language to ‘have’ them. It could turn out then – following in the wake of predecessor parameters that have required further subdivision – that the NMP could be reformulated in case the feature [+plural] is a composite rather than totally primitive feature of the universal inventory and/or that our analysis of it is not quite fine-grained enough, as discussed in earlier sections. Alternatively, as mentioned earlier, the field may yet come to some consensus on what counts as legitimate plural feature ‘selection’.

Kwon and Zribi-Hertz (2004) explore an account of the typological differences between plural-marking in French (and English) vs. Korean in terms of the degree of grammaticalization of the respective plural morphemes in each language. They characterize fully grammaticalized (i.e. inflectional) features as ‘a subclass of functional features’ that have a binary (±) value; or, more specifically, a negative value. In the case of plural-marking, an inflectional plural feature has a negative value, namely, ‘singular’. The Korean plural morpheme, on the other hand, is argued to be more ‘weakly’ grammaticalized and thus (still) lexemic; consequently, it does not have a negative value. In other words, according to Kwon and Zribi-Hertz, ‘while plural morphology occurs in both Korean and French, “singular morphology” is a relevant concept for French but not Korean’ (p. 151). They suggest that the Korean plural, because of its greater ‘semantic rigidity’, is more restricted in its distribution than the French plural; specifically, only French-type inflectionally pluralized NPs are open to intensional readings, whereas such readings are unavailable for Korean-type lexically pluralized NPs

34 In fact, looking at the data, there does appear to be some correlation or co-occurrence restriction between the projection (and position) of classifiers and a prohibition on plural-marking, although it holds within – rather than (‘parametrically’) across – languages such as Mandarin and Korean (though see footnote 24 regarding Japanese). This correlation receives a simpler and more unified explanation under a purely structural account such as Li’s; that is, as the consequence of an intervening Cl head (in case there is one) blocking the raising of a noun to Num, as mentioned earlier.
It is beyond the limits of my own expertise to comment on the plausibility of this proposal, except to point out that it requires yet another level of consensus on resolving the issue of what constitutes a feature. In particular, several other studies, including those employing a morphosyntactic ‘feature geometry’ approach, have argued that features are monovalent, having only a positive value (i.e. presence); the absence of a particular feature within an entailment hierarchy of features simply triggers a default interpretation of the next-higher (entailed) feature (e.g. Harley and Ritter, 2002; Bejar, 2003; Cowper, 2005).

Kwon and Zribi-Hertz present their proposal regarding the cross-linguistic ‘inflectional’ vs. ‘non-inflectional’ nature of plural-marking (defined technically as being associated or not with the availability of a negative feature value, respectively) as ‘a relevant parameter for grammatical typology (to be added to Corbett’s, 2000, survey of properties)’ (p. 154). As a typological parameter, it is not clear how we should regard its status with respect to learner (L1 and L2) I-languages; this depends to a large extent on whether one thinks that syntactic computations encode this type of morphological distinction. From the point of view of the acquirer of either Korean or English, both types of plural morphemes appear to be bound affixes, and both the negative (i.e. singular) feature value and the absence of the plural feature similarly appear as ‘no plural-marking’ on nouns. For syntactically active features in minimalist theory, the ‘lexical’ vs. ‘inflectional’ morphological distinction is essentially neutralized by the time lexical items make it into the numeration for input to the syntactic computation, and there can be little doubt that the plural feature itself is syntactically and semantically active in both languages.

For the second language acquirer, to what extent are features dissociable from the lexical items they comprise in both the native and target languages? I mentioned above that a native English speaker acquiring Korean may recruit the required abstract syntactico-semantic feature(s) for assembling a representation of Korean plural -tul from among various English lexical items. Let us consider that suggestion in a bit more detail, starting with an analogous proposal for phonology. Brown (2000) argues that the underlying features that comprise phonemic representations, such as voicing, are available (‘somewhere’) in an L2 learner’s native language grammar independently of the segments they define, and enable the learner to discriminate non-native contrasts that differ along that particular dimension. If, on the other hand, a feature that
distinguishes a non-native contrast is absent from the L1, then that feature contrast in the interlanguage grammar will fail to be accurately perceived (pp. 19–20).

An analogy might be drawn here between phonemic segments composed of underlying phonetic features and lexical items composed of underlying syntactic (or semantic) features. Brown (2000) points out, for example, that it is not the case that the composed phonological categories of the L1 play no role in L2 perception:

While it is claimed that it is the features that determine the perceptual sensitivities (and that guide the mapping of the acoustic signal onto perceptual categories), it is still the existing phoneme categories which the incoming acoustic stimuli are sorted into, at least initially … The effects of the L1 phonological categories will be most apparent in the initial stages of acquisition, before new L2 categories have been established. (p. 20)

In other words, it seems to me highly likely, as discussed earlier, that L2 learners initially seek the morpholexical equivalents of assembled lexical items in the L1 in the target language they are acquiring. Certainly, it is already-assembled lexical items (or vocabulary items, in a distributed morphology framework) that learners are exposed to in the target language environment and that constitute the initial, primary basis for further analysis. Do learners initially perceive these items in terms of the featural composition of their ‘closest’ morpholexical equivalents in the L1? I think the answer is probably ‘yes’. Similar to Brown’s claim for phonological acquisition, however, it is the underlying features themselves that are independently recruitable as building blocks for the assembly and possible reconfiguration of new lexical items. Under this view, as long as corresponding features are available anywhere in the L1, then they should be available for the purpose of lexical assembly in the L2.

However, what if the corresponding features are not available in the L1, and what if the available L1 ones do not exactly correspond to those of the L2? Let us consider the first question. Proponents of representational deficit accounts, such as Hawkins (2005) and Hawkins and Hattori (2006) – specifically citing Brown (2000) – similarly extend her argument to the acquisition of morphosyntax by suggesting that uninterpretable features not selected during the acquisition of one or more languages during a hypothesized critical period subsequently become unavailable for later language acquisition. This would seem to imply that a given feature contrast is somehow no longer perceptible to the
learner; that is, a contrast that distinguishes one phoneme from another – or one morphosyntactic category from another? – becomes attenuated and eventually neutralized. This is also apparently what is meant by Rizzi (2005), who writes that acquiring the computational properties of a language ‘amounts to selecting some internally generated options and discarding, or “forgetting”, other options, on the basis of experience’ (pp. 73–74).

It is not clear to me exactly how this other type of analogy with phonology holds, since the morphosyntactic feature contrasts in question appear to be detectable even for uninterpretable features such as for case, agreement and EPP-triggered movement (if EPP features exist; see Grohmann et al., 2000; Zwart, 2007). My own view is that any feature contrast that is detectable is, in principle, ultimately acquirable (although it might not be actually acquired in any given particular case for independent reasons). I assume that the basis for detectability is the observation of any formal contrast, such as the difference between student ~ students, or xuesheng ~ xueshengmen or haksayng ~ haksayngtul.35 In other words, the learner will associate a difference in a minimally contrasting form with some difference in meaning or grammatical function and construct some sort of representation for it. I take it that the issue in question for the representation deficit view is the ‘some sort’ of representation a learner comes up with; namely, the claim that it is necessarily defective or non-nativelike if it involves uninterpretable features. In this regard, surely one of the next great challenges for experimental research in SLA will be the design of increasingly sophisticated studies for investigating how (or at least whether) learners acquire the subtle interpretive differences associated with the cross-linguistic differences of assembled morphosyntactic lexical items (such as plural or aspectual or past tense marking) within various structural configurations and discourse contexts, and how these are mapped

35 Here I sidestep the (obviously interesting) psycholinguistic issue of exactly how learners detect the relevant contrasts. The point I would like to make here is that I do not see that the detectability of formal contrasts is likely to split along interpretable vs. uninterpretable feature lines. If a formal morphosyntactic contrast is only observable within a spoken-language environment, then it will indeed necessarily be filtered through a learner’s phonetic and phonological representations as well, as described at length by Carroll (2001). In other words, for a highly literate L2 learner, it might be easier to detect a written contrast than a spoken one, especially in untimed (non-ephemeral) contexts. Recent research by Goad et al. (2003), Goad and White (2004) and White (2008) further suggests that L1 prosodic representations of morphological inflection may constrain the spoken production of inflectional morphology in the L2 as well.
to their overt phonological forms. Indeed, such work has already begun to be carried out; for example, in the realm of L2 tense/aspect interpretation by, amongst others, Montrul and Slabakova (2002; 2003); Hawkins et al. (2008); Iverson and Rothman (2008); Pérez-Leroux et al. (2008); Slabakova and Montrul (2008).

In any case, I assume that, to the extent formal morphological and word order contrasts are in fact detectable to adult learners, the greater difficulty for the second language acquirer lies in assembling just the right combination of features into the right lexical items for each language, and in determining the appropriate conditioning environments for their expression. This is especially so in cases where such features (interpretable or uninterpretable) do exist in the L1 but are configured differently, and/or are expressed under different contextual conditions, including pragmatically-governed ones.

My other question – what if the available L1 features do not exactly correspond to those of the L2 – is more difficult to answer, I think. It should be clear from the discussion of plural-marking in Chinese and Korean above that morpholexical items that get spelled out as plural-markers in different languages are not completely equivalent; nor, perhaps, are the functional categories (such as D or Num) whose features may be bundled together in different ways. But is the feature [+plural] in one language exactly the ‘same’ feature as [+plural] in another? All generative approaches that I am aware of apparently assume this to be the case. I have always assumed it myself and earlier in Section IV made a virtue of the assumption that such features are atomically primitive, elemental, equivalent, and thus the most valid units of cross-linguistic comparison, and so on. Indeed, the metaphor of ‘selection’ of features from a ‘universal inventory’ essentially forces this view upon us. However, this view may not be entirely correct.

Cowper (2005) addresses this issue, observing that ‘the content of a linguistic element depends in large part on which contrasts the element participates in’ (p. 10). With respect to phonology, for example, languages with a different number of vowel contrasts may divide up the same phonetic range differently, such that in a language with a smaller number of contrasts, each of the vowels exhibits a broader phonetic range; conversely, the larger the inventory of contrastive vowels in a language, the narrower the phonetic range in which each is realized. More to the point, vowels ‘with apparently identical phonetic properties’ may have different feature specifications in the
two systems (p. 11). In a feature-geometry system of interpretable syntactico-semantic features that make up the Infl system, Cowper suggests that the interpretation of any given Infl feature rests to some extent on whether that feature is further partitioned (i.e. has dependent features) in a particular language, as this will affect the default interpretation of a non-partitioned feature, and also on the lexical semantics of individual verbs: ‘we thus expect to find cross-linguistic differences in the semantic interpretation of a given feature’ (p. 12).

Nonetheless, Cowper also assumes that there is a set of features provided by universal grammar, from which each language selects a (possibly only ‘slightly different’) subset, and that the entailment relations that hold between the selected features are universally invariant across languages. She writes: ‘Once \([F]_L = \text{the subset of selected features; DL}\) has been established for each language \(L\), it remains to be determined how the features are gathered into lexical items (LIs) on the one hand, and spelled out by vocabulary items (VIs) on the other’ (p. 19). Notice, however, that the process she describes is likely to be backwards in regard to language acquisition; that is, the establishment of the set of features \([F]_L\) for a language \(L\) must initially be at least partly determined on the basis of analysis of the VIs, which may in turn be underspecified themselves. For SLA, the process is more complicated because the mapping between the VIs, LIs and underlying features has already been established for the native language, but this certainly does not mean that the process is impossible or that it might not even be facilitated by knowledge of features in the L1. To the extent that the inventory and organization of morphosyntactic features reflect ‘the grammaticalization of fundamental cognitive categories’ (Harley and Ritter, 2002: 482), there is little reason to think that the categories encoded by features are substantially different cross-linguistically or especially that they are ultimately inaccessible to adult learners. The analogy with phonological feature-geometry is that the extensions of their interpretations, while containing a common core, are relativized and somewhat elastic depending on how highly specified the system of

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36 Pulleyblank (2006) explicitly argues against the widely held assumption in generative phonological theory that there exists a universal set of distinctive features supplied by UG. Instead, he argues, features do not have consistent cross-linguistic phonetic correlates, feature inventories vary from language to language (in an Optimality Theoretic system where constraints are defined over features and all possible constraints are ranked within every language), and the values that features assign to particular classes of segments also vary. I am grateful to an anonymous reviewer for pointing out this reference to me.
contrasts is that they participate in. Consider, for example, the difference in the definition of [+plural] for languages with only a two-way plural/non-plural distinction vs. those that also have formal dual, trial or paucal features. The exact specification of [+plural] will necessarily differ in languages with more highly-specified number distinctions. Such extensions are probably less common, more marked and more difficult to acquire, and I have little more to offer here than a call for further research that takes them into consideration.37

Next, I would like to explicitly address the concerns of two anonymous reviewers who both worried that such speculation about the cross-linguistic (non-)identity of features or that features ‘could probably be deduced from cognitive universals and ontologies’, suggests that we can kiss any sort of theoretically interesting UG goodbye, and that we are ‘heading to the anecdotal situation reflected in the Spanish student complaint: “There is no UG. I know, because I tried to learn Spanish and I couldn’t.”’ I’m not sure I understand the leap regarding the hypothetical Spanish student, but my intent is surely not to minimize the constraining role of UG in the representation of a (second) language, beyond that minimization already undertaken by the Minimalist Program in general (see Marantz, 1995; Chomsky, 2005; Fitch et al., 2005; and some counter-arguments in Pinker and Jackendoff, 2005). Chomsky (2005) writes that:

acquisition is a matter of parameter-setting and is therefore divorced entirely from the remaining format for grammar: the principles of UG … Returning to the three factors of language design,38 adoption of a P and P framework overcomes a difficult conceptual barrier to shifting the burden of explanation [of language acquisition; DL] from the first factor, the genetic endowment, to the third factor, language-independent principles of data processing, structural architecture, and computational efficiency. (pp. 8–9)

As has been summarized elsewhere (see, amongst others, Schwartz and Sprouse, 2000; White, 2003; Slabakova, 2006; Lardiere, 2007; Dekydtspotter, to appear), there is a great deal of research, including studies based on poverty-of-the-stimulus argumentation, suggesting

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37 The feature-geometry approach does make testable predictions for first language acquisition, as discussed by Harley and Ritter (2002). In a nutshell, the more deeply embedded the feature in a feature-dependency system, the later it will be acquired. For an idea along similar lines for SLA, see Lardiere (2000: 122–24).

38 The three factors of language design, according to Chomsky (2005: 6), are (1) genetic endowment, (2) experience and (3) principles not specific to the faculty of language, including principles of data analysis ‘that might be used in language acquisition and other domains’ and principles of structural architecture and developmental constraints that enter in canalization and efficient computation.
that the UG-constrained properties of natural languages such as hierarchical structure dependence and discrete infinity, cyclicity and locality conditions on Merge (and internal Merge = Move) and their interpretive consequences, the relevance of theoretical constructs such as c-command, phases and edges, the autonomy of linguistic levels of representation (however many and however formulated) – in short, the essential, biologically-constrained format and computational mechanisms of the human language faculty – appear to characterize second language grammars as well. Aside from learning issues involving ‘data processing’ and ‘computational efficiency’ that might account for the variability in production that is characteristic of many second language acquirers, the differences among the endstate grammars attained by second language acquirers appear similar to the differences between human languages in general – namely, in that the selected features have been combined and expressed in lexical items in different ways under different conditioning environments. (This is what Chomsky refers to as ‘parameter-setting’, although, as I have discussed above, that particular terminology sweeps the actual nuts-and-bolts problem of acquiring a particular-language/idiolectal grammar under the rug; for even more extensive discussion, see Carroll, 2001.)

The paradigm shift discussed by Chomsky (2005) requires that all generative language acquisition research be conducted at the so-called interfaces. This does not necessarily require a major shift in acquisitionists’ current operating procedures: Marantz (1995), writing on ‘the end of syntax’, observes that, for the majority of syntacticians, ‘most of us have been investigating the interfaces whether we acknowledge this or not.’ (p. 381).

I think that, to the extent that features do reflect fundamental cognitive categories, as Harley and Ritter (2002) argue, this would be a good thing for biolinguistic investigation into the human language faculty, as such organically-derived categories are probably the best candidates available for laying any claim to a biologically grounded, human natural language universality. Where else would such features come from? Along similar lines, Fitch et al. (2005) write:

Syntax clearly plays a significant role in our ability to construct and express new meanings, but at least some of the restrictions and complexities of this process are plausibly inherited from conceptual structure, rather than being part of syntax per se. Just as the conceptual structure of objects and events surely influences and constrains the properties of nouns and verbs, it seems plausible to postulate that linguistic devices expressing quantity, tense, aspect or comparison, or other temporal or logical relations, inherit
at least some of their structure from the conceptual structure of time, space and logic. The precise locus of such constraints is an active area of current research in linguistics. (p. 203; emphasis added)

Note that the ‘linguistic devices’ alluded to above by Fitch et al. for expressing quantity, tense, aspect and so on are currently theoretically formulated in terms of formal linguistic features. One crucial role of Universal Grammar is thus to mediate the encoding or transducing of conceptual features into just those formal linguistic features that are relevant to syntactic computation and its interpretive consequences, and delimiting just this potential set. There is no question, however, that the form and interpretation of such linguistic devices are configured within lexical items and conditioning environments among the world’s languages in different, language-specific ways that may indeed appear to both the researcher and the second language learner to be ‘complicated’, ‘arcane’ and ‘mind-boggling’, to quote a reviewer. Generative researchers might take some measure of comfort from proposals such as those of Harley and Ritter (2002) and Cowper (2005) arguing that the set of features is indeed constrained, as are the hierarchical relations they may enter into, but there is no getting around the fact that the form and content of language-specific lexical items must be learned.

Finally, let me be the first to acknowledge (anticipating this criticism) that there is an obvious ‘duh’ factor here; that is, there is nothing terribly original about comparing the ways in which grammatical features of the native language(s) and target languages are organized, or in suggesting that learners use L1 feature configurations as a departure point for what to look for in the L2. But I agree with Slabakova (2002), who writes that ‘much more precise research questions can be formulated’ if L1 transfer is taken into account and properties that differ in the L1 and the L2 are investigated (p. 186). I likewise assume that a ‘contrastive analysis’ of features will aid the SLA researcher in more accurately describing the learning task facing the speaker of a particular language who is trying to learn another. Whether it would actually (predictively) aid the learner is an open question, since the acquisition researcher, even more so than the comparative syntactician, will always be guessing – albeit hopefully making a professionally-informed best guess from among a smallish range of possibilities – as to which morpholexical correspondences between languages a learner is initially most likely to establish. Putting aside the ‘behaviourist’ baggage associated with early contrastive approaches, however, it is hard to quibble with Lado’s
‘first step’ in carrying out such a comparison: ‘Locate the best structural description of the languages involved’ (p. 67). At this point in the development of generative syntactic theory, the best available property theory (in the sense discussed by Gregg, 1993; Carroll, 2001) is likely to be one articulated in terms of the most basic formal unit or ‘common denominator’ between linguistic categories: features as we currently understand them.

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**VII References**


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