THE NOW AND THEN OF L2 GROWING PAINS

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1. Introduction

More than 10 years ago I was invited to participate in a conference on Linguistic Theory and Second Language Acquisition at MIT. In fact, for some it was the first or proto-GASLA (Generative Approaches to Second Language Acquisition) conference. At the time, I had been working on “markedness” for several years, I decided to share my concerns with the experts. Specifically, I wanted to discuss the various ways in which the concept was used in the linguistic/psycholinguistic literature because it had direct implications for L2 acquisition research in terms of formulation of hypotheses, data elicitation, etc.

It is very probable that I was not able to make my point, but whether I had been able to or not, it would have been somehow irrelevant for some...for the following reason: one of the authorities in the field of L1 acquisition and linguistic theory told me, first, that one view of markedness that I was discussing when comparing relative clauses in English and Spanish was against the Subset Principle (that sounded quite bad, mainly because at that time I did not know what the Subset Principle was), and, second, that I had to forget about markedness and think in terms of parameters.

The first remark, once I found out what the Subset Principle was, had a positive outcome because, besides leading me to read interesting literature, it helped me to understand why that specific proposal—even though it was not intended to deal with preposition stranding—when applied to these phenomena made the opposite predictions than other proposals did.

As for the second remark, I must say that I found it rather snobbish and out of place for a ‘scientific environment’, mainly because I had been precisely discussing the fact that according to one view of markedness, one of the setting of any possible parameter was always marked, which meant that at least one view of markedness theory and parametric theory were closely related. I also wondered whether I had been right when choosing my topic for discussion. I had been working on the acquisition of clitics at the time, and I had the temptation of discussing the “clitic parameter” —there was talk about a clitic parameter at the time— but I had chosen not to talk about something “fashionable” because I am rather independent, and prefer not to “follow the crowd” and love to dismantle “myths” (not utopias though). Furthermore, I felt more confident with my “relatives”, and markedness was far from being a settled issue.

Now, looking back without anger (mirando hacia atrás sin ira —I have to say this in Spanish too—) I am sure that I could have chosen a more convincing way of leading our colleagues to discuss markedness: I could have put the emphasis on the relationship between markedness and parameter setting, for instance.

When I was asked to give this talk, I went through a similar process: I wanted to talk about parameters even though I had the feeling that we were about to enter a beyond parameters stage because a lot could be said about parameters or at least about the research conducted under the parametric umbrella. Furthermore, I am not sure that entering the beyond markedness stage or the beyond parameters stage means that the issues have been solved or that we cannot learn from discussing the questions that the various definitions of parameters may raise. Beyond parameters means, for me, that we do not gain anything from repeating the same types of studies without revising the theoretical constructs on which we base our hypotheses. I expect to see a role for parametric issues in the “post-parametric era”, in the same way as markedness has been at the forefront of the “parametric era” (more or less disguised as “default values”).

Now, as then, my choice of topic is based on my belief that the time has come to evaluate the contribution of parametric theory now (markedness theory then) to second language acquisition. In order to do this it is

Liceras/L2 growing pains/EUROSLA 97/Barcelona
important: 1) to compare the different concepts of parameter that are available in the literature; 2) to face the fact that —as Baker (1995) puts it— there seems to be room for micro-parameters, macro-parameters and mid-sized parameters; 3) to determine how the various parameters interact, if they do; 4) to investigate whether there is pre-parametric learning; 5) to determine whether setting-parameters is an appropriate way of explaining how variable language data interact with UG to facilitate L1 “growth”; and 6) to determine whether setting-parameters is an appropriate way of explaining how L2 acquisition proceeds.

In spite of the fact that I support the view that adult L2 learners do not reset parameters, I am going to discuss past and present parameters (or parameter-like accounts of language variation) because I believe that developments in linguistic theory contribute to our understanding of the logical problem of adult non-primary language acquisition. Parameters are important not because they are to be taken as magic devices which can explain the magic of L1 acquisition but as careful and detailed proposals about language variation. Parameter-setting constitutes a hypothesis about the interaction between UG and what nature “offers” to allow L1 “grow”. Even if we do not think that this mechanism operates in the case of adult L2 acquisition, we still have to explain what are the alternatives. Furthermore, I am ready to hear (I have already heard it) that rather than parameters we should discuss “functional categories”. Of course we should, mainly because, as we shall see, parameters and functional categories are now as closely related as markedness and parameter setting were then and are still now.

My main objective is to discuss how the various approaches to defining parameters have translated into L2 research questions, specifically to research questions related to the null subject parameter. The choice of this parameter is justified not only because I have conducted research on this topic, but mainly because this parameter has been at the center of the linguistic and psycholinguistic research that has been conducted under the Principles and Parameters framework ever since the onset of the model. I will show that our journey through what I have labeled the “descriptive”, the “proto-explanatory” and the “explanatory” stages seems to have lead us to the “beyond parameters” stage and, in some respects, it has —as it should if progress has been made— but it also seems to have brought us full circle to propose new parameters that seem to pay tribute to some of the premises which were left to oblivion past the “descriptive” stage.

2. What is a parameter? How many parameters?

Chomsky’s Principles and Parameters theory, and therefore, parameters, enter the cognitive stage at the onset of the 80’s with the publication of Lectures on Government and Binding (1981). The specific theory of language acquisition proposed —though very programmatic— contains the ingredients needed to set up a research program aimed at investigating the nature of non-native grammars. First, its biological roots —the linguistic capacity is understood as a mental organ which “grows” via exposure to the linguistic input provided by the environment (any given natural language)— provide an interesting point of departure for the study of non-native acquisition as a “special” or “pathological” version of primary language acquisition. Second, its psychological roots —the modular view of the mind and consequently of the linguistic capacity— address both the issue of the actual grammatical representations which are acquired as well as the issue of the learning and processing mechanisms which explain how learning takes place. Third, its refined model of grammar, having universality and parametric variation as its central goals, provides the categories needed to compare all languages, including non-native languages. These goals remain in Chomsky’s Minimalist Program, but the tension between the Principles (the computational system) and parametric variation (lexical variety) is rather different because “variation of language is essentially morphological in character” (Chomsky 1995: 7). A welcome (direct or indirect) outcome of this view seems to be the central role of the interfaces between the different levels of language in the Minimalist Program (Chomsky 1995), a move which will provide us with better tools to investigate the nature of non-native grammars.

In order to illustrate what parameters should be like, Chomsky (1981) chose the pro-drop parameter which had been described in detail by Rizzi (1982) and Jaeggli (1982). This parameter —in essence a formalization of
Perlmutter’s surface structure filter— is defined as a cluster of properties which determine two typological groups of languages: [+/- pro-drop], depending on whether they allow:

- null subjects as in (1):
  (1) [e] he encontrado el libro
      “I found the book”
- free inversion in simple sentences as in (2):
  (2) [e] ha comido Juan
      “Juan ate”
- “long wh-movement” of subject as in (3):
  (3) el hombre que me preguntó a quién [e] había visto
      [“the man x such that I wonder who x saw”]
- empty resumptive pronouns in embedded clauses as in (4):
  (4) esta es la chica que me preguntó quién cree que [e] lo hizo
      “This is the girl that I wonder who thinks that she did it”
- apparent violations of the *[that-t] filter as in (5):
  (5) ¿quién cree que [e] se irá?
      “who do you think (that) will leave”

According to Chomsky (1981), who follows Taraldsen (1978), these constructions are possible in pro-drop languages because Agreement—a feature of INFL(ection) at the time—governs the empty category in each case.

The intuitive idea is that subjects can be dropped when there is overt agreement.¹ The acquisition problem is stated as follows: “the language learner equipped with the theory of UG as a part of the initial state requires evidence to fix the parameter and then knows the other properties of the language that follow from this choice of value” (Chomsky 1981: 241).

This is the foundation of the program of research which has lead to the production of subsequent refinements of both syntactic analyses and learnability issues.

With this program in mind, one would have thought (as Baker 1995) speculates, that more parameters of the type would have been proposed. However, this has not happened. For Baker (1995), work similar to this would have lead to the discovery of macro-parameters but research has somehow gone in the opposite direction so that what we have are many micro-parameters intended to account for the differences and similarities among the Romance, the Germanic or the Slavic languages.

In the same vain, we would have expected serious attempts to relate parameters to one another. Again, this has not happened. Neither with the word-order parameters nor with the configurality parameters. Not only that but, in many cases, a single member of a possible cluster of properties qualified as a parameter.

Atkinson’s (1992) classification of parameters, for instance, consists of a list of micro-parameters which are related to principles associated with the various modules as shown in (6) below.

(6) List of major parameters (Atkinson 1992: 221)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Head direction</td>
<td>X-bar Theory</td>
</tr>
<tr>
<td>b) Specifier</td>
<td>X-bar Theory</td>
</tr>
<tr>
<td>c) Adjunct</td>
<td>X-bar Theory</td>
</tr>
</tbody>
</table>

¹ The acquisition problem is stated as follows: “the language learner equipped with the theory of UG as a part of the initial state requires evidence to fix the parameter and then knows the other properties of the language that follow from this choice of value” (Chomsky 1981: 241).
To associate the parameters to the various modules is a logical consequence of the modularity of the model and therefore an attempt to explain how UG principles are instantiated. But do these micro-parameters have any other feature in common? Mostly they have a binary nature, a welcome feature because of the tendency of binary features in linguistics in general, because of the switch-setting analogy used by Chomsky and because the nervous system seems to function in that way. All but the last two are binary but for different reasons: the directionality parameters have to be binary; the rest up to j have been defined as such. The last two could probably be redefined in terms of binary features as well.

If, as Atkinson speculates, we make the Subset Condition a constraint on parameters, the classification runs into problems because, in principle, it would go against the binary nature of the parameters. However, in most accounts of language acquisition the Subset Principle (Berwick 1985) is not meant to be a UG principle but an acquisition principle intended to face the non-negative-data requirement.

Another attempt to constrain parameters is the degree-n learnability requirement (Wexler and Culicover 1980; Lightfoot 1991), which constitute a welcome restriction, since it postulates that parameters should be fixed on the basis of primary linguistic data (if possible, available in matrix sentences).

Further attempts to constrain parameters have lead to propose the Lexical Parametrization Hypothesis (Borer 1984; Wexler and Manzini 1987), a welcome move because “locating the source of parametric variation in the properties of lexical items puts the need for learning exactly where we know learning to be required on independent grounds”. But in order not to lose the important generalization of the PPT which claims that exposure to a small amount of primary linguistic data can have extensive consequences, an item by item approach (as in ZETA role assignment for instance) cannot be sustained. However, its reformulation as the Functional Parametrisation Hypothesis (Fukui 1986, Chomsky 1992) looks much more attractive because it links the computational system to the properties of lexical items. This also allows us to make far reaching generalizations and, on top of this, the major parameters could be redefined in terms of this hypothesis.

If research had gone in the direction of macro-parameters, we could have arrived to something along the lines of the “crude” typology (using his own words) that Baker (1995) proposes when he argues for the polysynthesis parameter. According to Baker, the boundaries of the space within which language typology takes place fit somewhere within the triangle defined in (7):

<table>
<thead>
<tr>
<th>Morphological type</th>
<th>Word order type</th>
<th>Exemplar</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Isolating</td>
<td>Head initial</td>
<td>English</td>
</tr>
<tr>
<td>II. Dependent marking</td>
<td>Head final</td>
<td>Japanese</td>
</tr>
<tr>
<td>III. Head marking</td>
<td>Free</td>
<td>Mohawk</td>
</tr>
</tbody>
</table>

(7) Language typology (Baker 1995: 5)
Spanish would be a “compound”, a mixture of head marking (subject agreement, optional object agreement, etc.) and head initial (fix word order, well defined VP, etc.).

Only an illustration is presented because it is not my intention to go into great detail here. However, it is important to note that this typology reduces syntactic differences to: directionality and properties of lexical items. In fact, Baker (1995) proposes that all differences could be reduced to a few “visibility conditions” one of which he defines informally as “every argument of a head element must be related to a morpheme in the word containing the head”. Visibility conditions are salient in languages such as Mohawk where incorporation takes on an extreme form.

So far, there are two apparent conflicting trends. One would lead us to give up the old notion of parameters because all parameters are morphological in nature. The other, Baker (1995), eliminates morphological distinctions such as derivation and inflection in favor of syntax. For him, noun incorporation and causative formation are to be treated the same as tense and aspect because the same ordering generalizations apply in both cases. Thus, he wants to define more macro-parameters while the opposite trend seems to be to eliminate them.ii

3. The pro-drop parameter in L2 acquisition

3.1. A “descriptive stage”? 
Let us follow the fate of the pro-drop parameter in L2 acquisition paying specific attention to: 1) the nature of non-native grammars; and 2) the relationship between L2 data and linguistic theory.

In the case of the nature of non-native grammars some of the relevant questions which have been asked are:
• are non-native grammars constrained by UG?
• what is the role of the L1?
• what is the default option?
• what is the role of the subset principle in L2 acquisition?
• is there directionality of difficulty depending on which language exhibits the default option?
• is there a role for non-parametric aspects of the L2?

An immediate outcome of Chomsky's proposal was to reformulate transfer questions in terms of parameters. This is what White (1985; 1986) did when she investigated the acquisition of the properties of the English option of the parameter by native Spanish and French speakers. Since French was considered a [-pro-drop] language, same as English, it was the obvious control to determine whether the L1 properties of [-pro-drop] were transferred or not. If they were, only the Spanish speakers would accept null subjects, SV inversion and apparent that-t violations — (1), (2) and (5) above. If the L1 was not the initial state, both French and English speakers would first avoid null subjects and the rest of the options (provided [-pro-drop] was the unmarked or default option) or, on the contrary, they would all produce null subjects, VS orders, etc.

What White (1985, 1986) found was that the French speakers did not behave like the Spanish speakers in the case of null subjects; both did very well in rejecting VS orders, and both had problems with that-t effects. Thus, the hierarchy of difficulty that resulted went (from easiest to most difficult) as follows:

(8) VS —> null subjects —> that-t

This hierarchy differs from the one found by Liceras (1989) which went as indicated in (9):

(9) null subjects —> VS —> that-t

Subject/verb inversion is not always possible in Spanish, which may account for these results. On the one hand, some of the test items with inverted subjects included in White's study would have also been rejected in Spanish.
and, on the other hand, learners were not able to identify the cases of subject/verb inversion which were not possible in Spanish. iii

In an attempt to solve the issue of which one [+pro-drop] or [—pro-drop] was the default setting, Phinney (1987) analyzed data from native speakers of Spanish learning English and from native speakers of English learning Spanish. Her results supported [+pro-drop] as a default option, a choice which goes against the subset principle when applied to that specific definition of the pro-drop parameter.

It is important to notice that, on the one hand, White (1985) interprets the transfer of null subjects from Spanish into English as evidence that the [+pro-drop] option is the marked one (therefore, it leads to transfer). On the other hand, Phinney (1987) interprets the presence of null subjects in the English interlanguage of Spanish speakers as a result of the difficulty encountered by learners of an unmarked [-pro-drop] language when learning English, which represents the marked option. This lack of agreement when interpreting the results is not as odd as it may look since, in a different context, researchers used to explain the same data as an outcome of transfer or as the result of overgeneralization. Furthermore, the recent literature on access versus non-access to UG is plagued with confronted accounts of data, as the debate around Epstein, Flynn and Martohardjono's (1997) article shows. However, we must say that White (1985) and Phinney (1987) agree on one point: the different status of referential pronouns and expletives in non-native grammars. This is the expected outcome because referential and pleonastic pro are always differentiated in natural languages and interlanguages are natural languages. iv

In addition to finding a clear-cut distinction between referential and pleonastic pro in the Spanish interlanguage of French and English speakers (Liceras 1988, 1989), which provides further evidence for the need to differentiate these two empty categories, I also found it difficult and frustrating to separate the acquisition of the syntactic and the pragmatic aspects in the case of two properties: null subjects and SV inversion. To this day, I find it hard to talk about setting the pro-drop parameter without taking into account the actual use of overt pronouns and the idiosyncratic and less idiosyncratic features of VS constructions as well as the role of specific markings such as the Spanish "a" marking of [+human, +definite] direct objects.

In Liceras (1988, 1989), the French subjects did not behave as expected. Namely, they did not behave in the same way as the English subjects since their results were overall better, which was attributed to processing advantages resulting from typological proximity. It should be pointed out that the role of the L1 in terms of facilitating or jeopardizing processing of L2 data has not received the attention that it deserves in the L2 acquisition research.

Hilles (1986) analyzed longitudinal data in an attempt to determine whether null subjects disappeared when modals (or INFL) were incorporated into the English interlanguage of an adolescent whose mother tongue was Spanish. She did not find the clear role for expletives which had been reported in the case of the L1 (Hyams 1986). The interesting question that she asked was whether a fossilized interlanguage would contain instances of fossilization in the case of all or only some of the properties of the parameter. To my knowledge, this research question has not been investigated as such.

3.2. Towards an “explanatory” stage?

3.2.1. The morphological uniformity principle and the null argument parameter

In an attempt to provide an account of missing subjects which goes beyond Indo-European languages, Jaeggli and Safir (1989) propose the Morphological Uniformity Principle (MUP), according to which children would set the Null subject parameter as [+/-null subject] depending on whether they were confronted with verbs with a [+uniform] or a [−uniform] morphological paradigm. v Thus, both Spanish and Chinese children would set the null subject parameter as [+null subject] because both paradigms are uniform (Spanish verbs are always inflected and Chinese verbs are never inflected). However, German, English or French children would set the parameter as [−null subject].
Hilles (1991) and Lakshmanan (1991) tried to determine whether L2 learners had access to the MUP which was proposed as a UG principles. If they did, they would assume the default option — the [+uniform] option according to the proposal — and would produce null subjects, inflect all verbs or none and would stop producing null subjects and VS orders once inflection was mastered. Hilles (1991) found these patterns in the case of two children and one adolescent but not in the case of two adults and one adolescent. Lakshmanan (1991) analyzed longitudinal data from three children and found a role for the L1 in the case of her French and Spanish subjects but not in the case of her Japanese subject. Her study suggested that phonology played a role in that it prevented the detection of expletive it in the case of the Spanish subject (the Spanish child identified it's as es) and somehow in the case of French (it's as c'est). She interprets these results as an indication that typological distance may be a good vaccine against negative transfer. A big question mark raised by these studies concerns the issue of the "silent period", which was particularly long in the case of the Japanese child. Once more these two studies offer another example of similar data explained differently: the same Spanish speaker's production of null subjects and inflection in English provides evidence for access to UG (Hilles 1991) and for lack of access to UG (Lakshmanan 1991).

3.2.2. Licensing and identification: do parameters relate to each other?
Since [+uniform] meant licensing and identification of null arguments via different means, we felt (Díaz and Liceras 1990) that it would be more adequate to approach the relationship between Indo-European and Oriental languages in terms of two parameters, as shown in (10).vi

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
Language & Topic-drop parameter & Pro-drop parameter \\
\hline
Japanese & + & + \\
English/French & - & - \\
Spanish & - & + \\
\hline
\end{tabular}
\caption{Topic-drop/Pro-drop (Díaz and Liceras 1990)}
\end{table}

Topic-drop language license null arguments (both subjects and objects) via a null operator placed in the COMP position, and identify them via null topics (Huang 1984). Under this view, English and French speakers have to reset the pro-drop parameter from [–] to [+] when learning Spanish but Oriental speakers do not have to because the syntactic requirement is taken care of.vii Under our account, Oriental speakers are not resetting a parameter because they have the same option of the pro-drop parameter in their L1. The problems arise when they identify subjects because, as indicated in (11), Oriental speakers produce non-native Spanish sentences where null subjects are identified via null topics. The degree of ambiguity created by this identification procedure is not accepted in native Spanish.

\begin{enumerate}
\item (11) Alex es un joven, ___ trabaja en la empresa de ropa, ___ no es muy grande y ____ es de su tío. ___Es bastante competente pero ____ no tiene mucho interés en su trabajo. [J#1]  
Alex is a young man, ____ works in a clothing store, ____ is not too large and ____ belongs to his uncle. ____ is rather competent but ____ is not much interested in his work.
\end{enumerate}

These sentences evidence that licensing and identification are two separate principles which have an independent status in non-native grammars.viii

3.2.3. A brief review: Do we know what we do not know?
We can isolate the following clear-cut outcomes of the previous studies:
• Triggers do not seem to be necessary when the default option has to be set. Namely, if [+null subject] is the default option, native speakers of English and French are supposed to produce null subjects from the initial
state, as in fact they do. However, it is not clear to us that this can be taken as evidence that this option of the parameter has been set as such. We will discuss this issue in the next section.

- It is not clear that expletives trigger the setting of the parameter to the [-null subject] option. Results are inconclusive.
- The subset principle does not seem to be at work in the case of L2 acquisition, which is probably due to the role of the L1.
- If setting of parameters means that the various properties are related, L2 acquisition data is far from providing direct evidence that parameter-setting takes place.
- Non-parametrized aspects of language such as specific structural features as well as pragmatic and stylistic choices both in L1 and L2 acquisition seem to be closely related to the acquisition of the various properties of the null subject parameter.
- Referential and pleonastic pro have a very distinct status in non-native grammars, which is expected. This results provide evidence for the linguistic analyses which clearly differentiate between these two empty categories (Suñer 1983).
- The trend towards investigating the status of a single property of the null subject parameter parallels the trend towards the definition of micro-parameters in the linguistic literature.
- The move towards analyzing longitudinal data to investigate the setting of parameters is welcome, so are the data banks which begin to be available for the comparison of first and second language acquisition of various languages. However, as it is the case for the L1, spontaneous production data has limitations and cannot provide a complete picture of non-native competence. Therefore, it is important that we are able to carry out longitudinal studies as well as experiments dealing with the acquisition of relevant aspects of grammar.
- Even though more research is necessary, the results in terms of the incorporation of obligatory pronominal subjects in L2 English seem to confirm that there is not only an age factor but also that the L1 plays a definite role even at a very early age.

3.3. The null subject parameter as a subset of the V-movement parameter: an “explanatory stage”?

There are at least two reasons why we feel that the differences between previous and recent analyses of null subject phenomena can be differentiated in terms of description versus explanation. The first reason is based on the important move towards putting functional categories at the core of language acquisition. Since functional categories are very special entities which differentiate human versus non-human representational systems, it is obvious that relevant proposal concerning language acquisition and language processing should heavily depend on functional categories. The second reason is based on the degree of abstraction gained by explaining language variation in terms of features located in functional categories. In this respect, functional categories can be perceived as the language “genes” of the human genome, and the features, the actual “chromosomes” which characterize the functional categories of the various languages. If functional categories cannot “grow” twice, adult L2 acquisition cannot be assimilated to L1 acquisition.

Let us assume, as Tsimpli and Rousseau (1991) do, that parameters are not (or seldom) set in L2 acquisition. If this is the case, the first stages of the English IL of Spanish speakers would contain sentences with referential null subjects such as (12). These could be represented as either (13) or (14).

(12) __lives in Sitges (he)

(13)       AgrP  Agr'  Spec  AgrP  Spec  V  V'  SV  SP
          live    in    Sitges

(14) pro  live  in  Sitges
In the case of (13), the assumption is that learners transfer the Spanish grammatical representation into English. In (14), it is assumed that the representation lacks the functional category AgrP. This has been proposed for child grammars (Radford 1990; Lebeaux 1988; Guilfoyle and Noonan 1992), early L2 grammars (Vainika and Young-Scholten 1996) and some adult grammars such as Japanese (Speas 1994). To contemplate the possibility of having two possible grammatical representations of the L1 or the individual speaker is an important move because it reflects the fact that we do not know what type of representation is behind a given IL production, which means that sometimes, as it is proposed here, there may be at least two possible options.

This approach is also interesting because it may lead us to a redefinition of parameter-setting, which, at least for the L2, instead of being concerned with finding clusters of properties may rather be concerned with the creation of syntactic representations for the L2.

If parameters are not set, how does the learner end up producing native-like constructions? The answer is via re-structuring each property at a time. Thus, when the Spanish learners systematically produce referential subject pronouns, their grammatical representation for (15) will be (16b).

(15) We eat a lot of fish

(16) Spec AgrP Agr′ Agr Spec SV V′ NP
   a. -mos comer mucho pescado
   b. we eat a lot of fish
   c. pro we eat a lot of fish

According to (16), a native speaker of English who produces (15) would have a grammatical representation such as (16b), while an adult Spanish speaker who produces (16) would have a grammatical representation such as (16c). This represents a serious attempt to use the insights provided by linguistic theory to our advantage in that it may help us to provide an account of the specific nature of IL grammars.

A further step in the direction of the explanatory stage is represented by the definition of functional categories in terms of features. According to this definition, Agr is marked as plus or minus strong, as indicated in (17). This is the feature which, in Pollock’s (1989) analysis accounts for the many differences between English and French in terms of verb movement. We have proposed (Liceras, Díaz, Laguardia, Fernández and Fernández, in press) that this feature is also responsible for licensing pro in Spanish and French, as shown in (17).

(17) Spec CP C′ C(OMP) IP
Therefore, as shown in (17)a, a null subject is possible in Spanish because it is licensed by the [+strong] nature of its agreement. Null subjects are not possible in English, as shown in (17)b, due to the [-strong] nature of its agreement. French licenses null subjects — as shown in (17)c — because it has [+strong] agreement. However, no null subjects can surface in French because its agreement lacks the necessary identification properties.

The feature [+/-strong] is the “chromosome” we were looking for. It is responsible for the V movement parameter: a super-parameter which incorporates pro-drop as one of its properties. This parameter does not seem to qualify as a macro-parameter as such but it is closer to Baker’s (1995) proposal than the pro-drop parameter was. In fact, if we talk about chemistry instead of biology — as Baker (1995) does — to explain how “elements” combine to form languages, we could say that this super-parameter deals with elements and how they combine but does not define the major classes of elements. In other words, if we combine the chemical/genetic analogy we could say that the features are the “elements” but the way they combine to form the “chromosomes” is not yet clear. In this respect, Hyams’ (1994) formalization of the topic-drop and the pro-drop parameter (Díaz and Liceras 1991), which is represented in (18), could also be redefined in terms of features.

The idea that there are two parameters is recast in (18) in terms of the levels of structure at which pro can be licensed and identified. With the formal apparatus provided by (17) and (18) we have analyzed the Spanish IL of Indo-European and Oriental speakers. We have found that these Spanish initial and advanced ILs show different identification procedures depending on the L1s. Thus, the Oriental learners will produce sentences such as (11) above or (19) below.

We have also found —as illustrated in (20) - (25)— that the distribution patterns of null and overt pronouns are very different both from the native patterns and from the child language patterns.

Null subjects occur in matrix and subordinate clauses for both Indo-European and Oriental speakers regardless of the level of proficiency, as shown in Liceras et al. (1995 and 1996c).

Null subjects occur with wh-questions which undergo wh-movement: no finite/non-finite distinction

- ¿dónde___ eres?
where ___ are (you, 2nd. p. sing. informal) from?
• ¿dónde___ vives?
  where do____ live (you, 2nd. p. sing. informal)??
(22) Overt subjects occur with non-finite verbs.
• ella gustar el sol
  she  like (infinitive) the sun
• ella estar
  she be (infinitive)
(23) There is a non-native usage of subject pronouns
• me voy a hablar
  me (I) go to speak
• Y ellos son muy contentos porque ellos sonríen
  And they are very happy because they smile
• Ellas bailan porque es un contesto y ellos quieren
  They dance because is a contest and they want
• “¿Por qué crees que ___ son amigos?” Porque ellos danzan
  Why do you think they are friends? Because they dance
• Y él... y la dic...
  And he...and her (she) say...
• yo habl...yo habla...yo hablo, perdono
  (3rd. p. sing)  (1st. p. sing.)
  I speak... I speak... excuse me
(24) There are subject/agreement mismatches
a) with overt pronouns
• yo habla
  I speaks
b) with nouns
• los dos se abrazó
  the two hugged (3rd. peson singular)
• los japoneses piensa (3rd. person singular)
  Japanese people thinks
c) with null subjects
• porque ___ voy (va) a devenir moreno [meaning “ella va a”]
  because_____am (is) going to get a sun tan [meaning “she is going to”]
(25) There are root infinitives
• no cocinar nada (ella)
  not __ cook anything (she)

We have interpreted these results as evidence that L2 learners are blind to the feature specification of the functional categories. Therefore, all of them license pro by default as indicated in (26).xii

(26) AgrSP
   Spec  AgrS’
   AgrS  VP
       Spec  V’
             V  NP
              pro  wants  chocolate
              pro  quiere  chocolate
              pro  veut  chocolat

Specifically, we propose that L2 learners of Spanish license pro at the Spec-V’ level by default and keep it because their ILs are blind to the [+strong] feature of agreement which allows licensing at Spec-I’ (Spec-Agr’)

Liceras/L2 growing pains/EUROSLA 97/Barcelona
4.  

**A la recherche du temps perdu: the morphology/syntax interface**

Recent developments in linguistic theory and acquisition theory reflect, on the one hand, the need to further refine the feature specification devices which could eventually lead to the discovery of the linguistic “elements” which combine to form the functional categories. These developments lead to the proposal of new parameters. However, there are proposals which deal with more “visible” — to use Baker’s (1995) term — aspects of language and are closer to the macro-parameter trend. Let us consider one example of each proposal as well as its implications for L2 acquisition.

### 4.1. Accounting for null elements in child grammars: the underspecification hypothesis and the “strength” of morphological paradigms

Hyams, Hoekstra and Becker (1995) and Hyams (1996) have proposed a classification of morphological paradigms in terms of their feature strength. According to this classification the strength of the Spanish paradigm would consist of its Person marking, while it would be the Number marking for English or the Tense marking for Japanese, as indicated in (27).

<table>
<thead>
<tr>
<th>(27) Specification of functional heads</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Type-a</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>m</td>
</tr>
<tr>
<td>Type-b</td>
</tr>
<tr>
<td>Type-c</td>
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</table>

This is a very abstract notion which needs further refinement but nonetheless represents a good attempt to capture the way in which children abstract from the morphological features of their ILs, the parametrized syntactic properties of the language to which they are exposed. Since children grammars are not initially specified for these features, they have to arrive at the appropriate classification. It has been proposed that the distribution of null/overt subjects and bare/non-bare NPs in child grammars are due to the underspecification of the feature Number. If L2 learners had to follow the same procedure, we would find instances of feature underspecification in early non-native Spanish. The question that we posed (Liceras, Valenzuela and Díaz 1997) was whether the feature Person would be implemented together or in relation to the feature Number. If this were the case, we would find an underspecified child Spanish grammar as well as an underspecified early Spanish non-native grammar. What we found was that there were no clear-cut correlations between the syntax and the morphology in the case of the non-native grammar. Namely, we did not find a relationship between the distribution of inflected verbs and null subjects or bare NPs on the one hand, and the distribution of non-inflected verbs and Det or plural subjects, on the other. Thus, the non-native grammar was not underspecified for Number.

We also found that the native grammar did not show clear indications of under specification in terms of the so-called “avoid plural phenomenon” (Hoeckstra and Hyams 1995). However, the native and the non-native grammar present very different patterns of development, which provide further evidence for the specific nature of non-native grammars.

### 4.2. The “morphological” and the “lexical” hypotheses

There are proposals which seem to follow more closely a “visible” approach — to use Baker’s (1995) term — to the relationship between morphology and syntax in terms of typological differences and similarities among languages and in terms of language acquisition. For instance, Snyder (1995) argues that the rich inflection of Romance determiners, specifically the word marker which provides a rich morphological definition to the
Spanish determiner (Berstein 1993), does not seem to be linked to the syntax of N-drop in child Spanish. In other words, mastering of determiner forms is not linked to the production of Noun Phrases such as (28) or (29).

(28) \[\text{La [e] verde} \]
    The Ø green
    “The green one”

(29) \[\text{La [e] de Pedro} \]
    The Ø of Pedro
    “Peter’s”

This leads Snyder (1995) to suggest that inflectional morphology may not have a direct bearing on the acquisition of syntax, while “lexical” properties such as the ones defined by the “compounding parameter” may. The “compounding” parameter accounts for the fact that languages which mark a lexical category such as N as [+affixal], as shown in (30), can also have complex predicates such as the ones in (31).

(30)a coffee table / mesa de café
(30)b country house / casa de campo
(31)a He hammered the metal flat —HAMMER FLAT [the metal]— RESULTATIVE
(31)b He picked up the book —PICK UP [the book]— PARTICLE VERB
(31)c We sent Alice a letter —SEND A LETTER [Alice]— DATIVE MOVEMENT

This parameter has two of the ingredients that were present in the original definition of parameters proposed by Chomsky (1981): it deals with a cluster of properties or constructions and it can be defined in terms of the subset principle. In other words, English has these constructions plus the “corresponding” ones in Romance, while Romance languages only have one of the options. According to Snyder (1995), L1 data correlates this typological variation.

In the case of L2 data, Díaz,Feliú, Redó and Valenzuela (1997) have found no correlation between the possible transfer of N-N compounds and resultatives into the Spanish IL of English speakers. They have also found that differences between English and French speakers only reflect typological proximity to Spanish in the case of N-N compounds but not in the case of resultatives. Thus, these results show that: 1) adult L2 learners seldom transfer their L1 [+affixal] marking of N into the L2 and 2) these learners accept ungrammatical resultatives in Spanish.

The [+telic] null morpheme which provides the resultative meaning to sentences such as (31)a and (32) may be responsible for the different status of N-N compounds and resultatives in the non-native grammar.

(32)a She beat him silly/ *Ella le golpeó tonto
(32)b The door slammed shut/ *La puerta se golpeó cerrada

Since a [+telic] null morpheme is seldom productive in Spanish, the “equivalent” of sentences such as (32) would require overt lexical items with a resultative meaning as shown in (33).

(33)a Le golpeó hasta que le dejó tonto
    Him (she) beat till that him left silly
(33)b La puerta se cerró de golpe
    The door closed with a slam

The preliminary data analyzed in Liceras, Valenzuela and Díaz (1997) on the one hand, and in Díaz, Feliú, Redó and Valenzuela (1997), on the other, suggests that non-native grammars seldom offer clear-cut results in terms of the linguistic relationships which are relevant to linguistic theory or to L1 acquisition. However, these results are very preliminary and more research is needed. It is very possible that adult L2 learners are more sensitive to
“visible” properties of language such as the ones contemplated by the “compounding” parameter than to the very abstract properties defined by the proposal which deals with the “strength” of the morphological paradigms.

5. The logical problem of non-primary language acquisition

The question that we have to answer is why adult L2 learners do not set parameters or do not perceive the abstract features “suggested” by the morphological paradigms (Liceras et al. in press; Liceras et al. 1996), why do they have grammatical representations which are “featureless” (Eubank 1996). What we would like to propose is that L2 learners do not have access to the “elements”, not even to the “chromosomes” which provide the phenotype for languages. They only have access to the properties which derive from the chromosomes. This is the reason why L2 learning proceeds via local re-structuring. However, this does not imply that we agree with Bley-Vroman’s (1990) account of L2 acquisition as represented in (34). We believe that L2 learners have intuitions about the L2, a fact that his model of L2 learning cannot account for.

(34) The logical problem of foreign language learning (Bley-Vroman 1990: 14)

<table>
<thead>
<tr>
<th>Child language development</th>
<th>Adult foreign language learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Universal Grammar</td>
<td>A. Native language knowledge</td>
</tr>
<tr>
<td>B. Domain-specific learning procedures</td>
<td>B. General problem-solving systems</td>
</tr>
</tbody>
</table>

What we would like to propose is that L2 learners have intuitions because they create L2 grammatical representations on the basis of secondary level domain-specific learning procedures, as shown in (35). These learning procedures are related to the secondary level representations described in Karmiloff-Smith’s (1992) model of the architecture of the human mind. According to Karmiloff-Smith (1992, 1994), Fodor’s (1983) modular/non-modular fixed dichotomy does not reflect the way in which learning proceeds because we create modular structures out of the central cognitive domain when we “grow” an L1 and, at the same time, we demodularize the computational system which constitutes the initial state. Thus, the tension between these two systems will depend on age and individual differences.

(35) The logical problem of non-primary language acquisition (Liceras 1996a: 33)

<table>
<thead>
<tr>
<th>Child primary language acquisition</th>
<th>Adult non-primary language acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Universal Grammar</td>
<td>A. Previous linguistic experience&lt;sup&gt;x&lt;/sup&gt;</td>
</tr>
<tr>
<td>B. Domain-specific learning procedures</td>
<td>B. Secondary level domain-specific learning procedures</td>
</tr>
<tr>
<td></td>
<td>C. General problem-solving systems</td>
</tr>
</tbody>
</table>

What we want to emphasize is that only L1 learners will use primary level domain-specific learning procedures to approach language data. L2 learners, and specifically adult L2 learners, will confront L2 data from secondary level domain-specific learning procedures which will provide them with intuitions about the L2 system. Accessing from secondary levels will lead them to more “visible” properties of language than accessing from primary levels. In other words, abstracting features out of inflectional morphology do not seem to be the type of mechanism which secondary level domain-specific learning procedures would favor.

It seems to us that linguistic theory is going in two different directions: a computational one which defines “elements” in terms of [+/-] abstract features which may lead to the proposal of more micro-parameters
(Chomsky 1995) and a conceptual one which defines “elements” in terms of more “visible” [+/- affixal] features which seems to be more in tune with the definition of macro-parameters (Baker 1995). For the time being, it is very probable that both approaches have something to offer to acquisition theory.

*This work has been funded by the Social Sciences and Humanities Research Council of Canada (SSHRCC # 410-96-0326), the Heritage Program of the Secretary of State for Multiculturalism (Canada) and the Faculty of Arts of the University of Ottawa. I would like to thank the board of EUROSLA and the organizing committee for inviting me to give this plenary lecture. I have to specially mention Eric Kellerman, Michael Sharwood-Smith and Lourdes Díaz. Having them around made my life easier... and having Eric Kellerman in charge of easing my way into this talk happened to fit in very nicely with the title because I was able to say “now” that it was “then” that I met Eric Kellerman in Toronto when I was facing actual L2 growing pains: I was a Ph. D. student fighting against the odds because I was crazy enough to think that linguistic theory, in general, and generative grammar, in particular, had something to contribute to the analysis of interlanguage systems, and vice versa, interlanguage systems could contribute to linguistic theory. Eric Kellerman and Michael Sharwood-Smith did not think that I was crazy, well... in any case they did not think that the implications were that far-fetched and I want to thank them “now” for the trust and support that they showed “then” as well as “now”.

1 Mixed systems are already mentioned (Hebrew, for instance).

2 That parameters have stopped to be relevant for the Minimalist Program is not simply because the PPT has been declared obsolete (Chomsky 1995)... a quick look at the index of Lectures on Government and Binding and the Minimalist Program provides the following figures: parametric variation, parameters and pro-drop parameter are mentioned in about 80 pages versus 8 pages in the latter.

3 In Liceras (1989) we suggest that there may be an acquisitional hierarchy according to which an interlanguage system may incorporate null subjects but not necessarily subject/verb inversion or apparent that-t violations. Or it could incorporate the first two properties but not the third one. What seems to be the case is that the presence of apparent that-t violations would imply the presence of subject/verb inversion and null subjects.

4 They are natural languages even though they may not be I-languages. Natural languages are mental representations which only human beings can have. They do not seem to be I-languages because the process of subsequent representation (acquisition) of L1 and adult L2 may differ in that only acquiring an L1 (or an L2 at a very young age) can be described or understood as "growing" in Chomsky's terms.

5 There is a tendency to avoid talking about the pro-drop parameter towards talking about the null subject parameter which coincides with the emphasis on the one property (presence of null subjects) and possibly S/V inversion. The rest of the properties that were listed in Chomsky (1981) are gradually removed from the discussion so that recently the research questions deal mostly with null arguments in general and null subjects in particular.

6 See Wang, Lillo-Martin et al. (1992) for a similar approach.

7 This allowed us to provide a different explanation for Zobl’s (1989) assertion that setting a parameter anew seemed to be easier than resetting a parameter. In our proposal, it is a question of having set the parameter already in terms of the syntax.

8 The topic-drop analysis of children and adult diary subjects (Haegeman 1991) which Rizzi (1994) and Hyams (1994) propose does not separate licensing from identification because it makes identification dependent upon a
grammar which licenses null subjects in root positions. This does not seem to be the case for non-native grammars, as we will show below.

There are certain problems attached to this proposal because non-native English pronouns are not necessarily clitics as the representation in (16)c would imply if we compare it to French ils in (17)c —I am using AgrP and INFL indistinctly here—. However, this is a technical issue which can be solved.

Authier (1989, 1992) has proposed that the pro-drop parameter should be viewed as a subset of the movement parameter. He, as well as Roberge (1987, 1990) have also argued that French is a pro-drop language.

Contreras (1991) has proposed that Spanish INFL has the feature [+lexical] which accounts for the position of subjects, for instance. This feature could also be responsible for identification of pro so that French and Spanish are similar in terms of [+/—strong] but different in terms of [+/—lexical]. This gives us the possibility of explaining why French shares some properties with English and other properties with Spanish.

It has been proposed (Lebeaux 1988) that pro can be licensed at Spec VP and that this is the default position. Pierce (1992) argues that this is the position where null subjects are licensed in child English and child French.

Features are checked at the Spec-I’ level in the case of Spanish and English and at the Spec-C’ level in the case of Chinese or German (see 17 and 18). The grammar of English will reject pro when it is checked at the Spec-I’ level. The grammar of Spanish will. The IL grammar will also allow null subjects because it is blind to this type of feature specification mechanism.

It has been proposed that child Spanish, child Catalan and child Italian share the so called “avoid plural phenomenon” (only singular verbal forms are produced at the first stages). The problem is that the exchanges which are found in the recorded data do not favor the use of plural forms at all. This was also the case in the interviews that we conducted (Liceras et al., in press) and in the data analyzed by Aguirre (1990) and Lopez-Ornat (1994) for L1. What is relevant in this respect is that the percentages of singular versus plural forms remains the same regardless the stage (both for L1 and L2 learners).

Previous linguistic experience refers to the mature state of Universal Grammar (Liceras 1996b), L1 knowledge and knowledge of other L2s.