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Article abstract

This study compares the acquisitional states of two groups of foreign language learners (a Francophone group learning English and an Anglophone group learning French) with a view to establishing the influence of Universal Grammar in the process. Specifically, the two groups (48 each) were asked to render acceptability judgments about 50 sentences in each language; the sentences exemplified syntactic properties [the permissability or impermissibility of fully tensed clausal complements, Exceptional Case Marking and Control structures (PRO)] associated with three verbs in the two languages (*believe/croire*, *promise/promettre* and *want/vouloir*).

TRANSFER AND SUCCESS IN THE ACQUISITION OF VERBAL PROPERTIES IN FRENCH AND ENGLISH

Ken Sheppard

1. The Issue

All languages can be characterized with respect to Universal Grammar; that is, a speaker of a language will operate with assumptions about the grammar of the language which have not been formally acquired but stem from an innate predisposition. These assumptions are reflected in her judgments about isolated sentences in that language. Such assumptions - or, more precisely, this *knowledge* of the principles governing the grammar of that language - constitute the speaker's basic competence in the language. Furthermore, these principles, though universal, vary within limits across languages: while all languages embody common properties, these properties are measurably different from language to language. That is to say, these principles have been parameterized, much the way switches attached to a single circuitry can be switched on or switched off[1].

While it is generally accepted that Universal Grammar (hereafter UG) plays a role in the acquisition of any language — indeed, it does so *by definition* — the critical factor in *second-* or *foreign*-language studies is the extent to which the two languages are differentially parameterized. Thus, if one wants to gain an understanding of the extent to which a speaker of languages A/B, in making judgments about language B, is resetting her parameters to neutral or, alternatively, persisting in the setting associated with language A, one must first locate a linguistic domain which exists comparably in both languages but exemplifies some difference with respect to these settings. That is, one must be able to *measure* the extent to which the learner is mapping the grammar of language B onto the

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1. In an early version of this conception, Chomsky says that, as the open parameters are fixed by experience, «a grammar is determined, what we may call a 'core grammar'» (1981b, p. 39)

grammar of language A, if she is doing any such thing at all. The comparison becomes particularly interesting if one of the two languages itself instantiates what is assumed to be an initial or «open» setting while the other embodies a marked reconfiguration.

Consider the case of the so-called *believe*-type verbs:

(1) I believe (that) John is late
(2) Je crois que Jean est en retard
(3) I believe John to be late
(4) *Je crois Jean êre en retard

As these examples show, although both languages permit a tensed clausal complement following *believe*, only English permits a NP + infinitive structure in this context. Accounts of these facts vary. According to Chomsky (1981a), (3) above at D-structure would resemble the following.

(5) I [$_{VP}$ believe [$_{S'}$ [$_S$ John to be late]]]

Then, through a process of S'-deletion, this structure reduces to the following at the level of S-structure.

(6) I [$_{VP}$ believe [$_S$ John to be late]]

Certain verbs in English are marked for S'-deletion, significantly the *believe*-type, making it possible for the succeeding NP to receive Case without violating the Theta Criterion or the Projection Principle. These verbs are instances of Exceptional Case Marking[2].

On the other hand, while *believe* is not a Control verb, *croire* is, as the following examples, drawn in part from Rouveret and Vergnaud (1980), show.

(7) Jean croit aimer la musique
(8) Jean [$_{VP}$ croit [$_{S'}$ [$_S$ PRO aimer la musique]]]
(9) *John believes to like music

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2 .«ECM is an idiosyncratic property of the Verb *believe* and several others like it in English; the corresponding verbs of French, Italian, and German, for example, do not have this property...» (Chomsky 1981b, p. 61)

Thus, while most infinitives in French subordinate clauses following *croire* require PRO subjects[3], all such subjects in English must be specified, i.e. phonetically or lexically realized, following *believe*. Of course, both verbs, *believe* and *croire*, take clausal complements unproblematically, but that fact bears only indirectly on the issue. Table I makes all of these distinctions clear.

	believe	*croire*
PRO	-	+
ECM	+	-
Clausal complements	+	+

Table I. Complements of *believe* and *croire*

If we take the French option to be unmarked, in other words, this patterns provide the sort of domain one is looking for. Quite simply, one would expect a Francophone learner of English to have a harder time resetting her parameters than an Anglophone learner of French, who need only revert to a neutral setting, assuming of course that UG is still accessible. These differences should be reflected in differences in accuracy in the processing of written input for the purpose of making an acceptability judgment.

Some of these issues become clearer when we look at other verbs that exhibit Exceptional Case Marking (hereafter ECM) and Control effects. This information is summarized in Table II.

	PRO	*ECM*	*Clausal complements*
believe	-	+	+
want	+	+	-
promise	+	-	+

Table II. Syntactic Properties: English Verbs

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3. Exceptions include (14) below and other structures that result from *Wh* Movement such as *le garçon que je croyais être arrivé* (Kayne 1984, p. 107)

Whereas two of these verbs require ECM, only *want* and *promise* are Control verbs, as the following examples show.

(10)   I want to be on time
(11)   I [$_{VP}$ want [$_{S'}$ (0) [$_S$ PRO to be on time]]]
(12)   I promise to be on time
(13)   I [$_{VP}$ promise [$_{NP}$ [$_{S'}$ [$_S$ PRO to be on time]]]]

Want of course does not instantiate obligatory Control, since ECM is possible, but *promise* clearly does, as the following shows.

(14)   I [$_{VP}$ promise John$_i$ [$_{NP}$ [$_{S'}$ [$_S$ PRO$_j$ to be on time]]]]

Co-indexing between *John* and PRO is presumably ruled out by some version of the Projection Principle; in any case, *promise* does not contrast with its French equivalent, *promettre*, in the distribution of any of these properties. Only *believe* and *promise* take clausal complements; *want* permits *for*-clauses, of course, at least with the insertion of adverbial phrases, but that issue bears little relation to the issue at hand.

Comparable verbs in French, however, pattern differently and suggest another basis for comparison of the two systems. The facts appear in Table III.

	PRO	*ECM*	*Clausal complements*
croire	+	-	+
vouloir	+	-	+
promettre	+	-	+

Table III. Syntactic Properties: French Verbs

It is clear from this table that *vouloir* exhibits properties that differ from its English equivalent's:

(15)   *Je veux Jean être à l'heure
(16)   Je veux que Jean soit à l'heure

By contrast, it is also clear that *promettre* patterns like English:

(17) Je promets d'être à l'heure
(18) J'ai promis à Jean d'être à l'heure
(19) Je promets que Jean sera là
(20) Je [$_{VP}$ promets Jean$_i$ [$_{NP}$ [$_{S'}$ [$_S$ PRO$_j$ être à l'heure]]]]

Thus, with reference to these pairs of verbs in French and English, we have something like an interlingual hierarchy, with *croire/believe* being the most dissimilar, *promettre/promise* the most similar and *vouloir/want* falling somewhere in between[4]. Since these structures in French are generally considered to be less marked than their English equivalents[5,] we have in these facts the basis for a comparison of the relative **complexity** of parameter settings: the acquisition of English would seem to require more of an adjustment than the acquisition of French[6]. In sum, the implication with respect to **foreign**-language acquisition (hereafter SLA) is that the Francophone adult would have more difficulty mastering the complexities of English grammar, given its distance from UG, than her Anglophone counterpart would have mastering French, given its proximity.

It is important to note that, while on the one hand I am not arguing that this **array** of verbal properties constitutes a cohesive parameter, this is not simply a study of three isolated verbs. These properties and their associated effects are characteristic of many verbs; indeed, a wide variety of verbs could be used. These three pairs, however, have the virtue at least of being highly frequent in the input. The use of additional verbs would introduce comprehension as a variable and thus conceivably influence the subjects' performance of the judgment task. The purpose of this research is to look at the properties these verbs and their complements exemplify, not just at lexical comprehension.

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4. Discussion of *à-* and *de-*insertion and tense assignment in the clausal complement is avoided here because these are relatively uncontroversial issues and do not bear directly on the topic.

5. This is apparently true whether one adopts typological *or* generative criteria. To my knowledge, the only other language which has anything like ECM is a dialect of Egyptian Arabic; presumably, however, that language does not also instantiate the full complement of properties characteristic of English. As for Chomsky, his assertion that ECM is indeed exceptional has persisted throughout his examination of this and associated phenomena (See, for example, 1986, p. 85).

6. Some SLA researchers have claimed that it is harder to unload a marked system than to acquire it (See White 1989b for discussion). This, however, is not the view that I have adopted in this study.

Complexities involving *Wh* Movement aside, the system in French is clearly more regular, and conceivably more universal, than the system in English, as Table II and Table III above show. That fact alone should confer a bias in favor of L2 French. If we take the setting associated with French (Table III) to represent the neutral or initial setting, then a child learning English as an native language would require positive evidence for the acquisition of ECM, and this would be abundantly available in the input. On the other hand, positive evidence would not be available for the child to learn that *believe* was not a PRO verb and that *want* did not permit clausal complements: the child's acquisition of these constraints would presumably require negative evidence, which is generally considered to be absent from the child's language-learning environment except possibly in the form of implicit or indirect negative evidence, i.e. the **absence** of positive examplars. Whether, however, we take the French setting to be universal or not, the implications for the acquisition of French among Anglophone adults are clear: at the very least, we can say that, while learning that ECM does not exist in French would require negative evidence of some kind, resetting the parameter for PRO and clausal complements could occur automatically as a consequence of positive evidence. These comments relevant to learnability theory, of course, beg the central question, namely, the issue of UG and its role in the process, except insofar as we can hypothesize that the regularity and comparative simplicity of the system associated with French would ease acquisition and that these differences would be reflected in accuracy levels on a judgment task.

It may be that the two languages stand in a superset/subset relationship, as that is defined by Wexler and Manzini (1987), although it is not clear, given the set of verbal properties outlined above, how that might play out. Essentially, their idea is that if a child is understood to overgeneralize by setting her parameters in such a way as to generate a grammar which is too big, i.e. a superset of the actual grammar of the language, then she will never be able to correct this mistake with positive evidence because his grammar will always be consistent with all available evidence. Rather, their view is that the child opts for the subset before the superset and gradually expands this grammar in the light of positive evidence. Thus, for example, according to these researchers, a reflexive anaphor like *herself* must be bound locally whereas its Japanese equivalent, *zibun*, can be bound anywhere. Therefore, the setting associated with Japanese yields a bigger grammar than the setting associated with English and, furthermore, Japanese, where this parameter is

concerned, **contains** English implicationally since the English constraint is consistent with its Japanese equivalent though not quite big enough, i.e. sufficiently comprehensive, to be identical. On this basis, Wexler and Manzini suggest that the smaller grammar is therefore less marked than the bigger one. They further allege that a child will naturally try the less marked setting first; then, as more and more positive evidence accumulates and nudges her positively toward the more marked setting, she will reset the parameter accordingly (See White 1989a for a reformulation of this hypothesis in SLA terms; summary below).

The problem with this formulation - created to account for the facts of L1 acquisition[7] - is that, where the phenomena addressed in this study are concerned, neither setting can be subsumed implicationally by the other.

Clearly, competence in and/or dependence on the French system will take one relatively far in English: positive evidence will be sufficient to iron out problems with ECM. It will not help one learn, however, that *believe* is *not* a PRO verb (and requires additional morphological apparatus) or that *want* does not take tensed clausal complements. Negative evidence will be necessary for that. Or possibly indirect negative evidence.

On the other hand, English parameter settings will not take one very far where *croire* and *vouloir* are concerned. Positive evidence will suffice for the acquisition of tensed clausal complements (with *vouloir*) and the PRO-ness of *croire*, but it will not help much with the impermissibility of ECM. Again, negative evidence will be necessary. Or possibly *indirect* negative evidence.

In other words, neither system is wholly productive while additional properties are acquired incrementally by means of positive evidence. Each setting requires negative evidence if it is going to be fully fleshed out and refined.

In short, four assumptions informed this study.

At least where statements are concerned, the syntactic system governing *croire*, *vouloir* and *promettre* + infinitival and clausal complements is far more

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7. There is an obvious interest in adult SLA/UG research in looking for adult phenomena which are similar to L1 phenomena on the assumption that the two processes are overlapping. On occasion, this is carried too far, i.e. either when the theory (created to explain L1 phenomena) has not been permitted to ripen or when methodological approaches suitable to children are applied inappropriately to adults (see Flynn 1984, for example).

regular and less marked — hence more accessible from the point of view of learnability — than the system governing *believe*, *want* and *promise* + infinitival and clausal complements.

Francophone learners of English are therefore likely to have a harder time than Anglophone learners of French, i.e. because of the intrinsic complexity of the system associated with English. The possible proximity of French syntax to UG may also confer an advantage on the Anglophone learner.

UG, i.e. those principles that characterize the grammar of all languages and get parameterized in response to language-specific input, plays a role in the learning of any language, whether that language is a first or foreign language, regardless of the age of the learner. That is to say, the question for this study is whether or not an adult learner has the same direct access to UG as a child acquiring her native language. Whether or not transfer should be reformulated within a principles-and-parameters framework is not formally addressed.

Francophone learners of English and Anglophone learners of French, in reactivating UG, would be operating with common — or, at the very least, overlapping — assumptions about what constitutes an acceptable sentence whether these are closely associated with the learners' native languages or not. This set of assumptions would naturally conform to the less marked, more universal model.

2. Some Recent SLA Studies

Needless to say, there are numerous studies that have addressed similar issues. Space limitations permit mention of only four.

White (1985a) studied the «pro-drop» parameter among adults learning English as a second language in Canada at several levels of acquisition. Three-quarters of the subjects were Hispanophone, and the rest, who served as controls, were Francophone Canadians; thus there were considerable differences between the two groups in terms of their exposure to the L2. In addition to null subjects, White looked at associated effects, subject-verb inversion and *that*-trace, on a grammaticality judgment task. Predictably, she found evidence of transfer among the Hispanophones, particularly at the lowest levels, on the null-subject items; since she does not report significance levels for the difference between the two groups on all items, it is impossible to draw firm conclusions about differential

parameter settings from this study. More importantly, she uncovered little evidence that «pro-drop» was linked to its putatively associated effects: there were no significant differences between the experimental group and the controls on those measures. She also found little evidence that her Francophone subjects were reverting to an «open» setting in the process.

White (1985b) also studied the role of subjacency with a view to determining whether it constrains hypothesis testing or not. In this case, she administered a grammaticality judgment-*cum*-correction test to 73 adult students of English, 54 of whom were native speakers of Spanish, 19 of whom spoke French. They represented various levels of English proficiency and, presumably, various periods of exposure to English; there were 11 native controls. Since S is a bounding node in English (as are S' and NP in some analyses[8]) but not in Spanish and French, these learners were going from more marked languages to a less marked language, assuming that the least marked setting is the most restrictive, i.e. *all* nodes are bounding, and only one bounding node can be crossed.

What she discovered, after coding the responses, was that 34% considered S to be a bounding node, 25% didn't and 41% were «indecisive»; indecision occurred at all levels of proficiency in the L2. In short, these figures could be cited to support virtually any position, though with little prospect of convincing anyone. Nonetheless, White interprets them as support for the notion that hypothesis testing is not unrestrained and the proposal (Felix 1982) that among adults there are two competing acquisitional systems at work, general problem-solving and UG.

Finally, White (1989a) looked at a binary parameter which meets the criteria for the existence of a subset relationship, now elevated to the status of a «Condition». The parameter involves adjacency, in this case, the requirement that adverbs in English cannot come between verbs and their direct objects without interfering with Case assignment (Stowell 1981); French, by comparison, allows adverbs to be placed in this position. English, in other words, instantiates strict adjacency, while French permits a freer setting[9]. Whereas positive evidence is

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8. Chomsky (1981a, 1981b) claims that bounding nodes for all languages are S' and NP and that parameter settings vary as to whether or not to include S as well. Sportiche (1982), in accord with Rizzi (1982), claims that English has S and NP, French S' and NP, so parameter settings vary . whether or not to substitute S for S'. The issue is of course still unsettled.

9. The current view (see Pollock 1989, for example) is that adverb placement so-called is subsumed by a larger process (accounting for a number of phenomena including negation, clitic placement, etc. in several languages) whereby French verbs move obligatorily to I. The AGRP in this analysis is defective in English but constitutes an

enough for a native English speaker to acquire the freer French setting, negative evidence (or indirect negative evidence) is presumably required for a native French speaker to acquire the stricter English setting. That is, on the assumption that transfer has an effect. On the other hand, if the Subset Condition is held to influence the process, and UG play its anticipated role, both types of learners should adopt the smaller grammar, i.e. that of English, as an initial hypothesis and gradually expand that grammar, on the basis of positive evidence alone, to accommodate the specific facts of the L2. As these two assumptions predict distinct acquisitional sequences, they can be formulated as alternative hypotheses: Francophone learners of English will either accept sentences like *Mary does slowly her homework* (a) or they will not (b).

In order to test out these alternatives, White administered three tests to 43 adult Francophone students of ESL: a paced grammaticality judgment test, an unpaced multiple choice grammaticality judgment test and a preference task. The last of these involved presentation of *pairs* of sentences for relative evaluation and was added to the battery in part because of criticisms that have recently surfaced (see Birdsong 1989) about the use of judgment data in SLA research. In any case, in the results for all three tests there is evidence that the Subset Condition does not play a role in adult L2 acquisition. On the first two tests, the subjects were very accurate in accepting grammatical sentences, less accurate in rejecting ungrammatical sentences (as they should have done if the condition were operative). On the third test, they were much more likely to judge grammatical/ungrammatical pairs as the same than the native controls, which of course also suggests that they were not 'subsetting' as anticipated. Thus, transfer (in one of its numerous guises), rather than a theoretical learnability condition, once again appears to have the upper hand.

Previously, Coppieters (1987) had queried 21 near-native speakers (NNSs) of French, selected on the recommendation of «friends, students, or close colleagues» (550) in France, and 20 native speakers as controls. The NNSs' native languages included both American and British dialects of English, Italian, Chinese (?), Farsi (Persian?), Spanish (?), German, Japanese, Korean and Portuguese (?); there was no formal test of their proficiency levels in French. The cohort included 17 professors and two university student researchers; thus, they were a highly educated lot. They

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inherent barrier in French. This has the effect of licensing post-verbal adverbs in French and restricting them in English.

had lived as few as 5.5 and as many as 37 years in France (17.4 years on the average); none had had to use French for everyday communication before the age of 18. The testing condition consisted of a 107-item questionnaire and a follow-up interview. The questionnaire comprised 41 sentences requiring the respondents to supply a missing item from a choice of two and 66 sentences requiring well-formedness judgments. The purpose of the interview was to plumb their intuitions as to why, say, they preferred one form to another or had rendered the well-formedness judgments they had.

The domains selected for this study included (among the 66 sentences) such examples of «complex syntax» as «object + predicate», causatives and clitics (see Rouveret and Vergnaud 1980) and Ross' A-over-A Constraint, as well as «the 'Noun *de* Adjective' construction.» These examples of so-called complex syntax are of course the most relevant to this study.

In order to quantify his subjects' responses, Coppieters developed an «evaluation index» for each item, i.e. the preference of the majority of NSs; he then counted the number of times each NNS diverged from this norm and arrived at an average for each (a binary statistic). Whereas the NSs diverged from the norm between 5% and 16% of the time, the NNSs diverged between 23% and 49% of the time. Even the one NNS who diverged least (22.9%) still diverged so much as not to be comparable to the NSs (p <.005). Unfortunately, it is hard to know how to interpret so gross a measure of difference: a questionnaire requiring an assessment as to the **degree** of well- formedness and/or some break-down of the interaction effects of domain and proximity-to-norm might have given a more comprehensive picture. It is interesting to note, however, that the NNSs diverged least in the so-called complex areas of syntax. The study of NNSs, Coppieters suggests, «might well provide interesting insights on the question of parameter setting, parameter variation, and parameter flexibility in UG, but it might also indicate which areas do not naturally fall within the bounds of formal syntactic/semantic competence» (566) and presumably come under the heading of «functional» or «cognitive» aspects of grammar.

Although these four studies touch on different aspects of the issue, they all represent efforts to get at the informants' underlying competence in the L2 by means of acceptability judgments. Unfortunately, they do not provide an entirely unclouded picture of UG's influence and its associated effects.

3. The Current Study

As the summary above suggests, putative differences in degrees of markedness are an issue in SLA. In the current study, therefore, two groups of learners moving in contrary directions - a Francophone group acquiring English (hereafter Group F) and an Anglophone group acquiring French (Group A) - were selected because they made a clear-cut comparison between marked and unmarked linguistic systems possible.

3.1 Hypotheses

(1) Although both groups will exhibit deviation from native-speaker norms, *Group F achieve significantly lower scores than Group A* (Hypothesis 1) in the L2 because English is more marked syntactically than French.

(2) *There will be no significant differences in the two groups' syntactic assumptions* (Hypothesis 2) about their L2s. This is a refinement of Hypothesis 1, a gross comparison; whether or not the two groups approximate each other in overall scores, they may be operating with comparable assumptions about the syntax of their target languages. In other words, disconfirmation of Hypothesis 1 is unnecessary, and certainly insufficient, for a decision about Hypothesis 2 (though it is consistent with a decision to accept it). Whereas Hypothesis 1 presupposes that deviance from native- speaker norms derives from the comparative complexity of target syntax, Hypothesis 2 anticipates internal consistency in the two groups' underlying assumptions, which may not derive from French.

3.2 Subjects

96 subjects participated in this study: 48 native French speakers tested in Paris and 48 native English speakers tested in New York City. Group A comprised informants from three sources: French classes at the Alliance française (2), the United Nations International School (30) and Fordham University at Lincoln Center (16). Group F was made up of students enrolled at the École française des attachés

de presse (EFAP)[10]. Since both groups live in large international cities, they had both had a variety of opportunities for exposure to the L2, including radio, television, movies and popular music, as well as print media such as magazines and newspapers.

Although L1 judgments were also gathered from each group, i.e. the groups served as native speaker controls for each other, these data are not reported here. Rather, an informal survey of native speakers was undertaken to determine whether the test sentences were acceptable or not, and «accuracy» scores were then computed with reference to these native speaker judgments.

Data on age, age at initial exposure, subsequent exposure patterns, years of formal instruction and the like were also collected. These attribute variables, in other words, were controlled to ensure comparability. Thus, both groups are relatively cohesive in terms of acquisitional and exposure patterns. They were also both above the intermediate range in terms of L2 proficiency by inference from these data as well as their test scores; the variance among these scores was also comparatively low[11]. A summary of the attribute variables is available from the author.

It was particularly important that the subjects in Group A knew the subjunctive mood in French. For this reason, it was critical to select informants who one could be certain had been exposed to and formally studied that aspect of the language's grammar. Thus, established French language programs were used to form a pool. The lack of randomness in the selection of these subjects of course limits the study's generalizability.

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10. White (personal communication) has suggested that the exposure patterns of the two groups might confer a certain bias. As a native speaker of a (southern) coastal British dialect, she claims that *want* + tensed clauses is more acceptable than *believe* + PRO; she therefore suggests that, if the Group F's teachers spoke some variant of British English, they might have skewed the input in such a way as to prevent a clean comparison. As a native speaker of American English, I cannot detect a preference. Furthermore, the current teachers of the informants in Paris were all native speakers of American English, as in fact Group A's French teachers were all native French speakers, though of several dialects.

11. Only the most recent studies have employed independent measures of general proficiency in the L2; this has been relatively easy to do in uni-directional studies. Nonetheless, there is sometimes wide variation in the L2 scores achieved and/or a lapse in time between the L2 testing and the tests employed in the study itself (see Bley-Vroman et al. 1988). In White's (1989b) bi-directional study, an informal cloze was used with wide variation in the scores that resulted.

3.3 The Task

Each group was given a randomized list of 50 statements in the L2; they were asked to rate these statements as either unacceptable (or «uncertain») or acceptable. Both grammatical and ungrammatical items were included in the list; 36 of these were test sentences, nine were distractors and five were controls. The test items were controlled according to the following four criteria.

- The two members of each pair are virtually identical in meaning.

- All sentences contain exactly 10 syllables.

- They are all in the past tense, although constraints on usage require the *imparfait* for *promettre* and the *passé composé* for *croire* and *vouloir*.

- Vocabulary is kept to an elementary level; all lexical items are highly frequent in the input; there is no slang.

Examples are provided in the Appendix.

3.4 Results

An analysis of variance (ANOVA) revealed significant main effects for all variables except language and significant effects for all interactions ($p < .05$) emerged, as Table IV indicates.

	Clause	*ECM*	*PRO*
croire	.81	.64	.40
promettre	.75	.76	.64
vouloir	.59	.76	.82
believe	.53	.26	.70
promise	.67	.67	.74
want	.56	.63	.73

Table IV. Mean Proportions on L2 Test: Verb x Environment

As indicated, both groups achieved their highest scores, on the average, in cells where the two languages diverge least; their lowest, on the average, where they diverge most. This constitutes an argument for transfer, or the importation of grammatical assumptions from the L1. In general, Group A did better in the four key cells than Group F, with the exception of *croire* + PRO. Sentences like *Marguerite croyait aimer l'opéra* were apparently particularly difficult for them, whereas Group F knew they should reject sentences like «Henry believed to like literature". In general, these scores lend *support* to Hypothesis 1, namely, the claim that the acquisition of French as a foreign language is easier than the acquisition of English as such. In fact, both groups were better in French (.81) than in English (.73), which also supports the claim of a generalized attraction for the French parameter setting. Since this fact could also be interpreted as evidence of a difference in L2 proficiency between the two groups, its relevance to the issue is doubtful. The following table gives overall figures for both tests by group.

	English	French
Group A	.85	.68
Group F	.61	.94

Table V. Mean Proportions: Group x Test

As the table indicates, the difference between the two groups on the foreign language tests, though significant, is on the order of only seven percentage points. Even if the difference were not significant, it would still not constitute proof positive of alignment as a consequence of a general reactivation of UG, however. As it is, it offers only modest support for the claim of a preference for French on the basis of markedness (Hypothesis 1).

To summarize what these analyses reveal, let's examine each of the hypotheses in turn. Paraphrases are given in parentheses.

Hypothesis 1 (Markedness: Group A will do better than Group F on the L2 measure) As Tables IV and V above show, Group A is closer to native French assumptions than Group F is to native English assumptions. Given the lack of independent corroboration of their actual proficiency levels in the foreign language(except, of course, for the implicit evidence in the attribute data), however,

it would be hard to cite this evidence as the basis for unqualified acceptance of this hypothesis. Thus, although **both** groups found the French setting easier to accommodate, there is, on balance, little support in these data for the claim of an acquisitional bias in favor of French over English on the basis of markedness.

Hypothesis 2 (UG: Groups A and F will resemble each other on the L2 measure) A decision about this hypothesis requires a direct comparison of the two groups as foreign language learners. On the one hand, as we have seen in Table V, the overall proportions for the two groups are significantly different (p <.01), so the data offer little support for the claim that they are operating with identical, or even similar, assumptions about the foreign language. «Accuracy» proportions, however, are limited in their power to establish identity: even if the mean scores were identical, that fact alone would not indicate with any precision how overlapping the two groups' assumptions about the L2 were since these scores might reflect completely different patterns of response, as indeed are evident in Table IV. In fact, these figures contain little support for the claim of identity except the trivial example of *want/vouloir* + clause (in which case each group is close to chance probability). Additional information about the two groups is provided in Table VI.

	Clause	*ECM*	*PRO*
Group A			
believe/croire	.82	.57	.66
promise/promettre	.82	.84	.70
want/vouloir	.77	.85	.89
Group F			
believe/croire	.74	.61	.82
promise/promettre	.72	.83	.86
want/vouloir	.73	.82	.84

Table VI. Group A's Proportions on Both Tests: Verb x Environment

As these figures also indicate, we can have little confidence that the two groups are closely aligned. Among the highest scores (above .80) Group A

achieved, one occurs in a cell where one might expect difficulty on the basis of a discrepancy between the two languages (*want/vouloir* + ECM); among the lowest (less than .70), one occurs where ease was predicted (*promise/promettre* + PRO). As for Group F, two of the highest occur in areas of predicted difficulty (*believe/croire* + PRO and *want/vouloir* + ECM). The best one can say is that *want/vouloir* + ECM would seem to be less of a problem than anticipated for both groups.

In sum, while there is some evidence here that the two groups are making comparable judgments in their L2s, there is not enough to support a strong claim that they closely resemble each other as a consequence of a generalized reactivation of UG.

4. Conclusions

It should be clear from the foregoing that these data reveal almost no role for UG in the process of SLA. Since, in the case of Group F, UG is the same as transfer and, in the case of Group A, it is the same as success, this study actually contrasts transfer and success. The fact is that both of these groups are relatively successful in their acquisition of these parameters; the only exceptions are Group F's failure to acquire *believe* + ECM and Group A's failure to acquire *croire* + PRO. As these are comparatively peripheral aspects of the languages' grammar (and rarely addressed in texts or instructional activities except by implication), it is not surprising that they have not been acquired.

This point becomes clearer when one compares expected scores, on the assumptions of transfer and success, with those actually achieved. If, for example, transfer had held sway where *believe* + ECM was concerned among Group F, one would expect complete rejection of these test sentences; if, on the other hand, success had been paramount (i.e. the informants had fully acquired the L2 system), then one would expect complete acceptance. This comparison is spelled out in the following table. «Percent agreement» indicates the extent to which the informants' responses were consistent with each assumption, whether that meant accepting or rejecting the test sentences themselves.

Thus, for example, in Table VII, with reference to ECM and *croire*, the figures 100/36 and 0/64 appear. The first of these two sets indicates that, on the

assumption of transfer, a mean of 1.00 was expected; that is, if transfer governed the acquisitional process, one would expect Group A to find examples of ECM in French entirely acceptable. Likewise, on the assumption that they have been completely successful in acquiring the target syntax, one would expect them to find such examples entirely unacceptable (0). In the event, this group was correct 64% of the time - in other words, agreed with the prediction of success in 64% of their responses. By contrast, they opted for the transfer assumption 36% of the time; that is to say, they carried the syntax of English over into French in 36% of their responses. As these facts suggest, the learners were right more often than not.

	Clause	*ECM*	*PRO*
believe			
T*	100/53	0/71	100/30
S**	100/53	100/26	0/70
promise			
T	100/67	0/67	100/74
S	100/67	0/67	100/74
want			
T	100/44	0/37	100/73
S	0/66	100/63	100/73
croire			
T	100/81	100/36	0/60
S	100/81	0/64	100/40
promettre			
T	100/75	0/76	100/64
S	100/75	0/76	100/64
vouloir			
T	0/41	100/24	100/82
S	100/59	0/76	100/82

* T = transfer   ** S = success

Table VII. Expected Mean Acceptance and Percent Agreement on the Assumptions of Transfer and Success and Percent Agreement on the L2 Test

As indicated, the most interesting contrasts occur in those cells where the languages are most divergent, since predictions of transfer and success differ in these areas. The critical cells are, of course, *believe/croire* + ECM and PRO and *want/vouloir* + clause and ECM. All of the learners exhibit more success than transfer in these eight critical cells with two exceptions. In fact, once these two cells are extracted, the scores achieved in the remaining six cells (three for each group) do not differ greatly from the scores achieved overall in the other ten (five for each group). So, for example, Group A achieved a mean of 66.3 in the three remaining cells and an overall mean of 75.6 in the remaining five. Group F achieved a mean of 63.0 in the remaining three and an overall mean of 66.8 in the other five. These informants were by and large successful learners of the L2.

If, by contrast, UG had played a significant role in the process, one could anticipate clearly differentiated effects between the two groups. That is, since UG is identical with transfer in Group F's case and success in Group A's, two conditions must be met to support the view that UG plays a role: high transfer scores for Group F and low transfer scores for Group A. This hydraulism[12] is not apparent in these data. In fact, overall success scores for both groups in the four critical cells are virtually identical (56.25 for Group F and 59.5 for Group A). It would be ridiculous to assert, without explanation, that Group A had access to UG while Group F did not. Rather, the notions of transfer and success provide a perfectly adequate explanation for the data. This, of course, does not mean that UG plays no role whatever (see below): it simply means that an assumption of UG does not provide a better fit than transfer and success. It is clearly not paramount.

Two questions remain.

1) Why do these informants exhibit so much more transfer than success in two *of these cells?*

None of the six cells reveals a lack of transfer effects. Indeed, it would be surprising if there were no transfer evidence in these data. It is also not hard to see, consistent with the assumption of a role for UG, why 74% of Group F reject *believe* + ECM while only 60% of Group A reject *croire* + PRO: clearly, ECM is

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12. Birdsong (personal communication) informs me that «trading relations» is a better term for this phenomenon.

a more marked phenomenon than PRO. It is also clearly easier for Group A to shed their dependence on ECM than for Group F to accommodate it — consistent with the notion of markedness differences as triggering mechanisms. Other possible explanations can be found by recourse to system-external variables, chiefly input. As indicated, it is unlikely that either of these rule systems is given much attention in instruction.

2) Why have the informants fallen so far short of expectations in the other six cells?

Here, as elsewhere, there is evidence that Group A has a *slight* edge over Group F (76% v. 67% success rates respectively). This is consistent with the idea that less marked systems are easier to acquire than more marked ones. Both groups, however, as these rates indicate, are close to success: they are both about two-thirds of the way along the IL continuum. It is entirely possible that a generalized perception that the languages differ even if they don't may account in part for this phenomenon of incompleteness. The view that generalized perceptions affect the process finds support in the work of Kellerman (1983), Meisel (1983) and Eubank (1989), as well as in the avoidance literature (see especially Schachter and Hart 1979).

Ken Sheppard
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APPENDIX

(1) Elle a promis que son frère l'aiderait

(2) Christophe a dit qu'il travaillerait plus

(3) J'ai promis de prendre de longues vacances

(4) Le chef voulait son assistant venir

(5) Il a dit qu'il irait à l'assemblée

(6) Il l'a persuadée de faire ses devoirs

(7) Les élèves voulaient que Philippe les aide

(8) Je croyais qu'elle était intelligente

(9) Elle lui a demandé s'il venait

(10) La plupart des élèves voulaient partir

(1) She believed Pete to be very happy

(2) He believed that they were much too busy

(3) He persuaded her to do her homework

(4) His friend wanted that he returns the car

(5) Alice promised Freddy to take the train
    (It is Freddy who will take the train)

(6) She promised to babysit with the kids

(7) He asked me to go to the marketplace

(8) The girls said that they hated the movie

(9) The boss wanted to take a vacation

(10) Arnold promised that Jack would cut the grass

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