DIALECT VARIATION, OPTIONALITY, AND THE LEARNABILITY GUARANTEE

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ABSTRACT

In acquiring a language the child is often faced with developing a grammar on the basis of input from a range of adults who speak different dialects or idiolects and whose grammars are not therefore identical. The fact that language acquisition is not subject to failure in such circumstances must mean that input from any combination of possible language varieties is guaranteed to trigger the development of a language system. The implications of this for the nature of Universal Grammar and the language acquisition process are explored.

1. INTRODUCTION

Much work on language acquisition theory and language learnability makes the simplifying assumption that the input which a child receives consists of sentences which are the output of a single invariant grammar; the child's task is to acquire the grammar corresponding to this input. Thus for example Berwick (1985) defined the task as follows:

> The problem of language acquisition is to select a target grammar from a class of grammars based on a finite sample of sentences drawn from the language generated by the target grammar. (Berwick 1985: 34)

It is assumed that the child acquiring language has, as input to the learning process, sentences which were generated by a single grammar— that of the adult providing the input. However, in reality it is the case that the child acquires language from the output, not of a single individual, but of a number of individuals, whose grammars may not be identical. There are not inconsiderable differences between the grammars of individuals, at a dialectal and indeed idiolectal level (see for example Henry 1995 and Hudson 1992); and it may even be the case that, as Chomsky (1995) suggests, no two individuals share exactly the same grammar. The language acquisition device must therefore be able to acquire a grammar on the basis of input which includes sentences generated by a range of different grammars.[1] Of course, if the child is exposed to two very different language

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varieties, bilingualism will result. But where the varieties are less differ-
entiated—what would be termed descriptively 'dialect differences'[2]—the
outcome appears to be not a 'bi-dialectal' system but rather a single system
incorporating elements of the different grammars exemplified in the input.

Chomsky (1965, 1995) argues that it is legitimate, in linguistic theory, to
make the simplifying assumption that the speaker, and learner, exist in a
homogeneous speech community. According to this view, although the in-
put the child receives may come from a range of speakers, all their gram-
mars are considered to be identical. Chomsky argues that this simplifica-
tion is a legitimate one which does not distort the picture, because lan-
guage acquisition would of course be possible in a homogeneous commu-
nity; variation is not essential to language acquisition, and thus we can
first try to explain how language acquisition could happen in the absence
of variation. Once that is understood, we may perhaps be in a position to
understand how acquisition happens in real-world, non-homogeneous
communities. While it is clearly true that variability is not essential to lan-
guage acquisition, it will be argued here that the actual existence of vari-
ability in input to language acquisition, and the fact that such variation
does not cause problems for the acquisition process, can illuminate the
nature of the language acquisition mechanism and of the grammars of
human language. Grammars, and the language acquisition process, must
be structured in such a way that learning from the combined output of dif-
ferent grammars is possible, to ensure that the learner does not face the
risk of encountering input, produced by a variety of different grammars,
which is so variable that a grammar cannot be acquired on the basis of it.

For language acquisition is not disrupted by dialect differences in the
input; it is, except in cases of severe disabilities or almost complete lack of
input, guaranteed to happen successfully, and to give the child a grammar
which not only works but makes her able to communicate within her
speech community, and be accepted as a member of that community.

Note that, if there was a risk of exposure to a range of dialects leading
to the child being unable to acquire language effectively, parents would be
expected to behave quite differently from the way that they actually do.
Thus, although parents have been known to be anxious (almost certainly
unnecessarily) that exposure to more than one language might adversely

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[2] I do not wish to suggest here that there is a clearly definable difference be-
tween 'dialects' and 'languages'; however, there is a clear sense in which some
language varieties differ in only a small number of ways, and others on a
much larger scale.

affect their child's language acquisition, they never seem to be concerned that input from different dialects might cause problems. They do not avoid having children with a speaker of another dialect, nor do they attempt to shield their child from exposure to speakers of other dialects, at least where these are not socially stigmatized. An American family, for example, hiring a carer who speaks Irish English is not usually anxious about the effects of mixed dialect input on their child's acquisition. Quite correctly, such a situation is not seen as giving rise to any acquisition problems. It is simply not the case that exposure to a range of different dialects causes problems for the language acquisition system. There is one telling exception to the lack of anxiety about mixed dialects which is generally found: some parents who are speakers of a standard variety of a language try to avoid their child having much exposure to speakers of non-standard dialects, so that they may avoid employing a non-standard speaker as a child-carer, or sending the child to a day-care centre or nursery where there are staff who speak a non-standard variety. What they are concerned about is usually expressed as the child acquiring what they consider to be 'bad grammar' or 'incorrect grammar'. It is not the case that they fear the child will be unable to learn any language, however; they fear that the child will acquire some non-standard features which they wrongly consider to be linguistically inferior. The fact that children in such circumstances do often acquire some features different from those in the grammars of their parents shows that the child can acquire a grammar reflecting features of the output of different caregivers.

Children learning from the output of speakers of different dialects or idiolects is such an everyday occurrence that it has not generally been perceived how remarkable it is. One would think that occasionally such 'mixed' input would lead to problems in acquisition, for example in parameter setting; the fact that it clearly does not has considerable implications for how language, and the language acquisition device, must be structured.

It should be noted that guaranteeing learnability in the face of input from different grammars is by no means trivial; in particular, the requirement to do so would serve to exclude some otherwise plausible views on the nature of grammars and of the acquisition process.

Let us suppose that it is a constraint on grammars that no grammar can have both feature A and feature B. However, each feature is possible individually in a grammar. Now let us suppose the child is exposed to two language varieties, one of which permits A and C, and the other B and C. The child's input data indicates that it must acquire a grammar which allows A,

B and C. But such a grammar is not possible, the co-occurrence of A and B being disallowed, and so the child cannot arrive at a grammar which covers the input data.

On a more concrete basis, take, for example, the proposal that there is no optionality of movement, as suggested in some versions of the Minimalist Program (see for example Chomsky 1993), so that elements move if and only if they are forced to. This means that there is, in effect, no possible grammar in which an element moves optionally; it must move obligatorily, or not at all. Now, imagine that the child has input from two grammars, one of which has obligatory movement of an element X (before spell-out), and one of which does not move X (overtly). The child thus has input in which it appears that movement is optional, but cannot learn a grammar which covers this data. The child might, of course, settle on one possible grammar or another on some basis, but if this constraint on the nature of grammars were to be combined with a requirement that the child reset a parameter any time a sentence which is not parsable by the current grammar is encountered (as proposed for example by Gibson & Wexler 1994), the child would be in a situation of see-sawing between parameter settings, and would never be able to settle on a single grammar. Of course, the child might learn two different grammars, and become bi-lingual or bi-dialectal, but as we suggested above it appears to be in general the case that a child exposed to a range of similar varieties of language does not become bi- or multi-dialectal, but rather appears to have a single grammar; it is difficult to see how it could be otherwise, for if the child was exposed to input from, say, ten adults with somewhat different idiolects, which is surely not implausible, and had to account for every different type of input by setting up a different grammar, he would end up having to learn ten different language varieties each used in addressing different speakers; in effect, virtually every child would have to be multi-dialectal. Given the implausibility of this, language acquisition theory must surely accommodate the possibility of the child forging a single grammar from the output of a variety of grammars. This requirement is one which should delimit the possible range of hypotheses about human language structure and acquisition.

For the 'language acquisition device' must provide not only for establishing a grammar from the output of a single grammar—it must be able to establish an internalised grammar, or grammars (in the case where bilingualism results), given input from *any* combination of possible grammars. That is a much more stringent requirement, in effect a guarantee of learnability given any natural language input. This might be termed the

'learnability guarantee', and this paper explores its implications for the nature of language and the language acquisition process. Hypotheses about linguistic theory and language acquisition theory are constrained by other aspects of acquisition—for example, the assumption that there is no negative evidence available to the child. It is suggested here that the need to learn from the output of different grammars should also be borne in mind in formulating hypotheses in this area. The discussion is undertaken largely within the framework of Chomskyan Principles and Parameters / Minimalist Syntax (Chomsky 1995), but the problems raised are clearly relevant for any approach to syntax which makes claims about the nature of possible grammars.

Guaranteeing that the child can acquire language given input from any possible combination of language varieties could be achieved either by features of the design of the learning process, a possibility considered in section 3, or by the nature of the design of language itself, that is, by the constraints placed by Universal Grammar on the nature of possible human language varieties, which we go on to consider in section 4. In section 5, it is suggested that a combination of the nature of differences between language varieties prescribed by Universal Grammar, and characteristics of the language acquisition device, ensure that language is learnable, while, on the other hand, ensuring that the learner adopts a maximally constrained grammar where possible. Before considering these issues in more detail however, we pause briefly to consider, in section 2, the types of variability between closely related dialects to which the child might be exposed during the acquisition process.

2. DIFFERENCES BETWEEN LANGUAGE VARIETIES

It is becoming clear that there are considerable differences between the grammars of speakers within speech communities. Although work on sociolinguistics has long focused on such differences at the societal level (see for example Labov's (1969, 1972 a, b) work on negation and the copula in African American Vernacular English) and Cheshire's (1982) study of syntactic variation in Reading English, it is only more recently that such variation has come to be considered to any great extent as being of particular theoretical significance within syntactic theory. Thus for example Hudson (1992), in the framework of Word Grammar, points out that there are two grammars of double-object constructions co-existing in British English, not co-inciding with any particular social or geographical boundaries, and argues that the data to which most learners are exposed is more

or less equally consistent with either of two possible grammars. Sells, Rickford & Wasow (1996) look at how negation in African American Vernacular English (AAVE) differs from standard English from an Optimality Theory perspective, arguing that different varieties can be accounted for by different rankings of constraints. Within the Principles and Parameters/ Minimalist framework, Kroch (1989, 1995) argues that historical change proceeds by competition between co-existing grammars; and Henry (1995) documents the considerable differences between Belfast English and standard English, and within varieties of Belfast English, which co-exist in a single speech community. Taking two of these examples, let us look in a little more detail at the findings. In AAVE, there is negative concord, requiring negative quantifiers to be licensed by another negative, and where necessary placing negative auxiliary in front of the subject to ensure this.[3]

(1)   I can't see nothing.
(2)   * I can see nothing.
(3)   Can't nobody do that.
(4)   * Nobody can do that.
(5)   * Nobody can't do that.

On the other hand, standard American English does not have negative concord, so that sentences like (2) and (4) are grammatical, but sentences like (1) are (3) are not. The child who hears both AAVE and standard English, then, may be exposed to conflicting evidence about the possibility and need for negative concord; this child will have as input to the language acquisition device sentences like (1)–(4); unless the child becomes bidialectal, she will have to try to forge a grammar which covers all these possibilities.

Henry (1995) shows that different parameter settings can co-exist within a speech community and within the grammars of individual speakers. Thus, in relation to overt-subject imperatives, there exist three grammars within the speech community of Belfast. One has verb raising to C in overt subject imperatives, so that the subject occurs postverbally:

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[3]   Sells, Rickford & Wasow (1995) argue for an analysis of auxiliary placement in negative concord, under which the auxiliary is in its usual position in I in this construction, and the subject remains in the specifier of a lower projection; an alternative view would see the negative auxiliary raising to C, as in yes-no questions. The precise analysis is not important for our purposes here; rather, what is significant is that a child may be exposed to conflicting data about negative concord and negative inversion.

(6)   Read you that.

(7)   Take you your coat.

A second dialect has postverbal subjects only with unaccusative verbs, which Henry analyses by saying that the DP remains *in situ* in VP; in this dialect, sentences like (6) and (7) are ungrammatical, but sentences like (8) and (9) are possible.

(8)   Go you away.

(9)   Run you home.

A third possibility is a standard-English type grammar, where no post-verbal subjects are possible; overt subjects in imperatives must precede the verb.

(10)   You read that.

(11)   You go away.

These grammars co-exist within the speech community in a way which is not related to area or social class stratification, and it is clear that many children are exposed to all three.

Similarly, in relation to a more morphological issue, variant irregular past tenses exist in some varieties of English; the following examples are from Hiberno-English. Thus, the simple past tense of *do* can be *did* or *done*, the past tense of *see* can be *seen* or *saw*, and the past tense of *run* can be *ran* or *run*. Many children are thus faced with alternate past tenses in the input; on a strict interpretation of the one form-one meaning assumption (as formulated, for example, in principles such as the morphological uniqueness principle or the unique entry principle: Wexler & Culicover 1980, Pinker 1984) the child should have difficulty in acquiring the past tense from this type of data, or at least should be capable of acquiring only a single form in a single grammar.

In order to guarantee learnability in circumstances where the child is exposed to different dialects or idiolects—for example, where a child has input from two or more varieties of English—every combination of the output of two or more natural language grammars must either trigger the acquisition of two separate grammars, or be itself a possible output of a human language grammar. This could imply that, for example, optionality must be allowed in the grammar, because the learner could be faced with output representing two different settings of the same parameter. Alternatively, the learning mechanism must work in such a way as to have strategies to deal with input from which a single allowable grammar which covers all the data is not 'learnable', so that it is possible for some

grammar(s) to be acquired. Note that this cannot be just any grammar—
for example, a grammar containing all the maximally unmarked parame-
ter settings in UG terms—but one which enables the child to communicate
within, and be accepted as a member of, the speech community from which
input has been received. For not only does the acquisition process ensure
that a child acquires a language; it is also uniformly the case, except in in-
stances of language pathology, that children come to speak in such a way
that they are perceived as native speaker members of a speech community.

3. POSSIBLE MEANS OF GUARANTEEING LEARNABILITY

It could of course be that the acquisition mechanism operates to ensure
that the 'mixed' input provided by different dialects does not in fact im-
pinge on it. There would be various ways to ensure this: for example, if the
child learned from a single speaker, or automatically became bi-lingual or
bi-dialectal, setting up two separate grammars, when exposed to varia-
tion in input. We show here however that these do not appear to be the
solution to the problem.

3.1.   Learning from a single speaker

One possible way of ensuring that children had a learnable grammar as
input to the acquisition system would be to have them learn from the out-
put of a single adult, fixating for example on the language of the principal
caregiver, similar to the way in which ducklings follow a single adult. In
this way, the child would be guaranteed to have input from a possible
grammar. However, there is evidence that this is not the case. Firstly, the
fact that bilingual acquisition can occur where the child has input from
different caregivers who speak different languages shows that the child
can pay attention to input from more than one caregiver. Secondly, chil-
dren interact with a range of adults, apparently processing the language
addressed to them through their language comprehension system; they do
not ignore the language of all but a principal caregiver. Of course it could
conceivably be the case that, while attempting to understand input from
more than one caregiver, they only admit data from one speaker into the
learning process. But it is not the case that the grammar acquired neces-
sarily matches that of the principal caregiver, having none of the features
of the input from other speakers. Thus, data from Elspeth (Wells 1981) on
the Child Language Data Exchange System (CHILDES database
(McWhinney & Snow 1990) shows that she has acquired non-standard
negative concord, which is exemplified in the environment, even though

her mother and principal caregiver is a speaker of standard English who does not use these forms.

(12) Elspeth 5;0   Me ain't got nothing to do.
                       You haven't got none left.
      Elspeth 3;6   Haven't got nothing.
                       Don't give me any sausage.
      Mother: Haven't got any.
                       Haven't got any this week.
                       Can't see any in the garden.
      George: I don't want no peas.

Moreover, an ongoing study of the acquisition of English in Belfast, where there is considerable variability in syntax (see Henry 1995), has shown that the child does not necessarily learn the variety of the principal caregiver. To take an example of something that is clearly wholly dependent on acquisition from the data rather than involving any contribution from Universal Grammar or parameter setting, and thus showing quite clearly how the child learns from the input, consider the case of irregular past tense acquisition. Thus for example S (4;10) uses *saw* and *seen* interchangeably as the past tense of *see* even though his mother, who is his principal caregiver, uses only *seen* as the past tense form and he is exposed to *saw* only from other speakers, for example one of his playmates. C. (3;9-4;9) uses *broken* as the past participle of *broke,* while his mother and principal caregiver has only *broke* as the past participle. These of course are purely lexical variants, but the same holds true on a more syntactic level. P (5;3) has I-to-C movement in embedded questions, of the type shown in (13), whereas his mother and principal caregiver does not.

(13)   I asked could I go.

Note that this is clearly an embedded question, showing pronoun change and sequence of tenses (the actual question would have been, 'Are you coming out?' so it is not a direct question), and also that he is beyond the stage which children generally go through where they overgeneralise inversion to embedded questions whether exposed to them or not. Inversion in embedded questions is possible for most Belfast English speakers (Henry 1995) and thus common in the environment, but would not have been acquired if P restricted himself to learning from the principal source of his input. Therefore, it is clear that children do not restrict themselves to learning from the output of the principal caregiver.

Similarly, C. uses inversion in embedded wh-questions,

(14)   Do you wonder who are they?(C 4;5)

although for his mother and principal caregiver, as for a considerable sub-group of Belfast English speakers, inversion is only possible in embedded yes-no questions. Thus C. is acquiring a structure present in the environment but not in the grammar of his principal caregiver.

3.2. Ignore variability: select a single consistent grammar

Input from different grammars might not impair learning if the language acquisition device ignored variation, selecting one option where two or more were exemplified in the input, whether at random or on some principled basis.

In relation to random selection, we must bear in mind that this would mean a child could select a highly infrequent option from the input. For example, hearing a speaker of another dialect who came to stay with the family for a few days could result in the selection of a parameter setting relating to that dialect, rather than the one normally heard. This does not appear to be the case : it would result in a number of children being judged to speak unlike members of the speech community in which they are growing up. Moreover, a child who heard apparent evidence for a different parameter setting, which in fact was the result of a speech error, could wrongly adopt that parameter setting if selection was random in cases of apparent conflict. Clearly there must be some frequency effect, a point we return to later. If on the other hand selection is done on some basis, then we should be able to see evidence of the selection in acquisition data. For example, it might be the case that the child would uniformly select the least marked setting. Bickerton (1984) makes a similar proposal in relation to the acquisition of a creole language from pidgin input. He argues that, where the language is underdetermined by the input, the child uses the maximally unmarked features to supplement it. It could be the case that where the grammar is underdetermined, not in the sense that there is no evidence, but that there is conflicting evidence for a certain feature, the child would also resort to selecting an unmarked form.

Let us assume that in the Minimalist framework (Chomsky 1995), the least marked setting is that where a functional head has a weak feature, so that movement is not required (as suggested for example by Platzack 1994). A child exposed to input containing both strong and weak features, such as apparent optional movement—should uniformly adopt the no-movement possibility. Thus, a child who heard input containing examples of sentences with I-to-C movement and sentences without such movement should uniformly adopt the grammar which has no movement. But this does not

seem to be the case. In colloquial French, grammars exist where I-to-C movement is optional in questions, within the grammar of a single adult

(15)   Vous allez au théâtre?
(16)   Allez-vous au théâtre?

Certainly, most French-speaking children will hear both types of input. But they do not automatically reject the inversion option; rather, both options seem to be present in the grammar. Similarly, the child growing up in Belfast will hear sentences in which there is I-to-C movement in embedded wh-questions, and sentences in which this does not occur

(17)   I wondered where were they going.
(18)   I wondered where they were going.

But this does not uniformly result in the adoption of the no-inversion option, with many children adopting grammars allowing both possibilities.

The question arises here whether adult human language grammars can contain optionality: if they cannot, then apparently such optionality cannot be acquired. However, it is clear that, for at least some features that can vary across grammars or across languages, both variant possibilities can be found in the grammar of a single adult. The example of I-to-C movement in French above is a case in point: many adults have optional I-to-C movement in questions in colloquial French. It could be objected that this represents a register difference, with the adult having two registers with different grammars, the no-inversion option occurring in the 'colloquial' register, and the inversion option in the more formal one. However, there are cases where options occur seemingly in free variation with no particular pragmatic or sociolinguistic shifts. Thus for many speakers imperative inversion, with verb movement to C in Belfast English, occurs alongside non-inverted imperatives, with no verb movement:

(19)   Read you that.
(20)   You read that.

Their grammars, then, would seem to have optional movement: Henry (1995) suggests that they have an imperative morpheme in C which is optionally strong; if it is strong, raising to C takes place, if not, there is no raising of the verb. If this is a possible adult grammar, then, it is a grammar which must be permitted by UG and one which a child can acquire.

Similarly, Poole (1996) notes that there is optional stylistic fronting in Icelandic.

(21)   þetta er versta bók sem hefur verið skrifuð.
         this is the worst book that has been written

(22)   þetta er versta bók sem skrifuð hefur verið.
            this is the worst book that written has been
            'This is the worst book that has been written.'

Poole notes that there is no meaning difference in such examples and that
the fronting appears to be wholly optional.

Similarly, just as grammars may have obligatory negative concord
(standard French, West Flemish[4]) or may not allow negative concord
(standard English), there also exist grammars where negative concord is
optional. Again, there are languages where I-to-C movement is obligatory
in questions (English), impossible (Chinese) or optional (colloquial French).
Thus there exist possible grammars which admit within a single grammar
the type of variation found across languages. Indeed, it may begin to seem
that optionality of movement is found not infrequently across languages.
Moreover, the type of variability within grammars is precisely the same as
we find across the grammars of different languages—exactly what we
would expect if the learner could treat input from minimally different
grammars by incorporating the combined possibilities offered by the two
grammars into a single grammar allowing optionality.

On the other hand, as we shall see below, it is not necessarily the case
that a child acquires a grammar that covers all the data received as input.

3.3. Acquire a bi-dialectal or multi-dialectal grammar

Learnability could perhaps be guaranteed by having the learner set up a
number of different grammars, corresponding to the different grammars
exemplified in the input. However, this would involve the learner in some
cases setting up almost as many grammars as there are speakers providing
input, and there is no evidence that the child becomes multi-dialectal in this
way. Given the number of people who might interact with the child, it is
difficult to see how the child could acquire the multiplicity of distinct
grammars necessary. Moreover, there is evidence that the child does not
acquire separate grammars, to be used with different speakers. Thus, for
example, Elspeth (in CHILDES data) addresses non-standard negative con-
cord sentences to her mother (a speaker of standard English who does not
use non-negative-concord) as well as to speakers using negative concord.

S (4;10), a Belfast English speaker, uses the standard past tense form
saw as well as the non-standard form *seen* when addressing a standard
speaker who does not use *seen* as a simple past tense.

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[4] Haegeman 1993

Thus, unless we wish to claim that many children have a multiplicity of separate but closely related grammars, it seems that the triggering of bilingualism by input from different grammars is not a solution to the problem: of course, bilingualism does occur, and is in fact one possible solution to the problem of variation in input; but it does not seem to offer solutions in the case where the child is exposed to the output of a range of closely related grammars.

4. UNIVERSAL GRAMMAR AND DIALECT VARIATION

We have explored how the design of the language acquisition mechanism might guarantee learnability in the face of input from different grammars, and established that there is not a simple way to do this. We now turn to look at whether it might be the nature of Universal Grammar itself that ensures learnability from variable input.

If Universal Grammar were simply a specification of the format of rules, then there would not be a problem, provided more than one rule were possible for a given purpose. However if universal grammar is a tightly defined specification of what is possible in human language, then we are left with the possibility that input from two different grammars could be a set of data corresponding to no possible grammar.

Let us assume that the minimal difference between two grammars is as follows: the assumption is that all parameters have two possible settings, + and −, and that all parameters are set for any language. Then, the minimal difference is one where all the parameter settings are identical, except one. We show such a difference here in relation to a fragment of grammar with three parameter settings.

Grammar 1:   Parameter setting 1: +
               Parameter setting 2: +
               Parameter setting 3: −

Grammar 2:   Parameter setting 1: −
               Parameter setting 2: +
               Parameter setting 3: −

If all the other settings are identical, then we have a minimal difference between grammars. The combined output of the grammars has itself a grammar:[5]

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[5] If the languages generated by Grammars 1 and 2 are in a subset relationship, that is, one defines a smaller language than the other, then the grammar of the combined languages would not have alternative settings, but a single set-

Grammar 3:   Parameter setting 1: +/–
               Parameter setting 2: +
               Parameter setting 3: –

If a grammar of type 3 exists (that is, if, for any grammar, there exists a minimally different grammar where the parameter setting is 'optional') then learning from the input of two grammars should not be a problem: the maximally inclusive grammar will simply be chosen. A problem only arises if the child has an obligation to adopt a grammar that covers the data, if parameter settings define discrete sets of possibilities rather than subsets/supersets, and if there is no possibility of optionality. A way to guarantee then that input from a combination of dialects does not disrupt language acquisition is to debar universal grammar from containing statements of the form:

(23)   X or Y
          But not   X and Y

An example of such a statement would be that movement is obligatory or disallowed, never optional, however this is framed. It does not matter if we formulate it as a prohibition on a certain functional head being optionally strong, for example:

(24)   X is strong or X is not strong.
          X cannot be optionally strong

Provided such statements are disbarred, there should be no serious problem in learning from input from two different dialects.

    However, note that many of the principles which have been proposed in Minimalist Syntax—for example the principle that movement only occurs if forced and the requirement that only the most economical derivation is grammatical, effectively serve to exclude optionality. But it should be noted that this is optionality within a given string. If the optionality consists in selecting a 'strong' or 'non-strong' version of a functional head, then that selection is made and is part of the numeration, so that, in the course of the derivation, movement is not actually optional, and principles such as economy of derivation can apply.

    Optionality has often been viewed as a puzzling and undesirable aspect of grammars: why should there be optionality in a grammar? We seem to have the answer here. Given that differences between grammars exist,

ting, that which defined the 'larger' language. For discussion of the subset principle in language acquisition, see Manzini & Wexler (1988).

optionality of parameter setting is necessary in order to guarantee that a grammar can be established where the input to the learning device is the output of two minimally different grammars. There have been many attempts to exclude optionality from the grammar, to show that apparent optionality is not 'really' optionality at all , or to show that it is very highly constrained (see for example Chomsky 1993, 1995, Fukui 1993, Saito 1992). However, if the argument here is along the right lines, such optionality is functional and necessary: given differences between language varieties, and the likelihood of input from minimally different varieties, it guarantees that the child will not be faced with data from which a grammar cannot be learned.

It might be thought that this greatly weakens the claims of Universal Grammar, offering an 'anything is possible' scenario; but this is not the case. If the areas in which variation is allowed in the grammar are very tightly defined, then allowing an extra choice (+/– as well as + and –) still leaves a highly constrained range of possibilities. Note, also, that optionality appears to figure in acquisition even where it is not present in the input. Wexler (1994) proposes the Optional Infinitive Hypothesis, claiming that children go through a stage where they optionally use non-finite verbs in matrix sentences, in effect using Tense and/or Agreement optionally. It is somewhat surprising that such optionality should exist in this way during the learning period if optionality was impossible in adult grammars.

Thus, allowing optionality in the syntax should ensure that a grammar is learnable from variable input. Optionality, rather than being an undesirable feature, would seem to be necessary in order to allow acquisition from the input of a range of minimally different grammars. However, there are still some problems, which are addressed in the next section.

Our study of the acquisition of English in Belfast indicates that children are not optionality-averse; in most cases children do acquire variable forms and parameter settings when they are exposed to them; thus children whose input includes both singular concord and full agreement with DP subjects (see Henry 1995) acquire both possibilities. For example C. is exposed to sentences with and without agreement, and regularly uses both types, as for example in

(25)   All the wee meat eaters *go* in there. All the big weed eaters, all the weeuns *goes* in there.

5. RESTRICTING OPTIONALITY

Some problems exist with solving the learnability problem through optionality in the grammar. In particular, it seems to go against the finding, established over many years of study of many languages, that optionality, while perhaps sometimes available, is the exception rather than the rule. Historically, optionality seems to exist for a short period and then disappear in favour of a single parameter setting (see for example Kroch 1989, 1995). Moreover, while exposure to such variation most often results in the acquisition of what appears to be an optional setting, it is sometimes the case that only one variant is acquired. If it was a requirement of the acquisition process that a grammar covering all the input data were acquired, then problems would arise both in relation to speech errors and in relation to brief exposure to other dialects (for example, that of a relative who comes to visit for short periods).

Thus, Henry (1995, 1997) notes that children exposed to imperatives where the verb raises to C:

(26)   Eat you that.
(27)   Do you your homework.

often do not acquire this possibility; they not only do not use such imperatives, but reject them in grammaticality judgment tasks. In relation to negative concord, Henry, Maclaran, Finlay & Wilson (1996) point out that children faced with input where negative concord appears to be optional, do not necessarily acquire it at least in the early stages of acquisition. Thus, the child C., at 4;8, has not acquired negative concord, even though it is present in the input data he receives, and despite the fact that he has acquired many other nonstandard features present in the data. Thus, his input contains sentences like:

(28)   He doesn't want no brothers and sisters
(29)   I didn't tell nothing
(30)   You can't do them no more

as well as sentences without negative concord:

(31)   There's nothing for you

but he does not use negative concord in spontaneous speech, instead using sentences without negative concord:

(32)   He has no arm
(33)   Get none

and regularly fails to repeat it on repetition tasks

(34)	Researcher: Say:	'I don't see Playbus no more.'
	C:	'I don't see Playbus any more.'
	Researcher: Say:	'I don't see Playbus no more.'
	C:	'I don't see Playbus any more.'

Thus, while UG may permit variation, the child does not necessarily acquire a grammar covering all the variation in the input.

Thus it seems that, while in principle optional parameter settings are a possibility, the acquisition device acts to reduce the amount of optionality incorporated into the developing grammar as far as possible. This would be the case if there was not a requirement to cover all the input data, but rather that some of it could be ignored. That seems necessarily to be the case in any event, because the child must be able to ignore speech errors and false starts in the input. As Chomsky (1965) points out, speech addressed to children includes many errors and false starts. Moreover, it seems clear that briefly hearing a visiting relative with a different dialect should not suddenly shift the child's grammar to cover that data. This suggests two things—first, it is not the case that a single sentence can be allowed to change the grammar, and secondly that there must some role for frequency in determining whether an aspect of the input is acquired or not. That is, the grammar permits the selection of X and Y, while however the acquisition device encourages the child to select EITHER X OR Y where possible.

One means of doing this would be to have the child test possible parameter settings against the data, weighing up the evidence for and against each. This is similar to a proposal made by Valian (1990) who suggested that parameters may be set, not by unique triggers, but by weighing up evidence in favour of competing settings.[6] Where both have strong evidence, both would be retained; where there is very weak evidence for one,

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[6] Further evidence for this may be the fact that, very occasionally, parameter settings arise in children's language which are not exemplified in the input. Thus for example negative concord occurs, though very infrequently, in the language of some children whose input does not appear to contain it (see van der Val (to appear) suggesting that two settings can be available for some time even though one is not instantiated in the input.

(i)　　He doesn't like nothing to eat. (Nina, 2;10)

(ii)　　There isn't no babies. (Shem, 3;0)

(iii)　　I didn't do nothing. (Abe, 3;09)

However, the pervasiveness of negative concord in non-standard varieties of English makes it difficult to be sure that the child does not in fact hear examples with negative concord.

it will be abandoned. This will allow the adoption of two different settings, where both have substantial exemplification in the data, but discourage it in the absence of strong evidence, as seems to be the case. Thus, it is not necessarily the case that the availability of optionality will always result in the adoption of optional parameter settings; rather, whatever mechanisms filter out speech errors and infrequently occurring data will ensure that optional settings are only adopted where there is sufficient evidence.

6. CONCLUSION

In this paper, we have considered the implications for linguistic theory and language acquisition theory of the fact that dialects and idiolects differ from one another, and the child is usually, perhaps always, faced with the task of acquiring language on the basis of input which comes from a range of different adult grammars, rather than a single consistent grammar.

It has been argued that the child does not cope with this by acquiring only from a single adult, or selecting a consistent grammar at random regardless of the variation in the input. Rather—except where there are large differences between the varieties—the child is faced with the task of learning from output which is variable.

It is clear that no combination of language varieties in the input must defeat the language acquisition mechanism. The child must be able to acquire language on the basis of input from speakers whose grammars are not identical. The implication of this appears to be that optionality must be available in grammar; otherwise, the child would risk encountering data which represented no human language grammar.

The study of language acquisition and of the nature of universal grammar has been facilitated by a recognition of the real-life constraints within which acquisition takes place—for example, the assumption that there is little or no direct negative evidence available to the learner, and that the child is not explicitly taught how language works. The fact that learnability is guaranteed regardless of the combination of inputs from different grammars which the child receives is, I would argue, another such constraint. Linguistic theory, and language acquisition theory, should be constrained by the requirement that any combination of inputs will be either sufficiently different to trigger the acquisition of two separate grammars, or be able to be combined into a single grammar which is learnable.

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