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ABSTRACT

Classic studies in second language (L2) learning offer little evidence for the validity of the notion of universals in L2 learning. The present study investigates this notion in data collected from 15 observational studies of 40 L2 learners who acquired the L2 naturally, that is, they were not taught the language in any formal ways. Interpretation of both input data and production data (e.g., L2 auxiliary development, auxiliary development with negation, auxiliary inversion in question formation, and input frequency and question production) suggests that communication is the principal goal of such learners, and that consequently those parts of the language system which are not important to communication are learned slowly. However, if a structure is extremely frequent in the input data, the learner will produce it. Effects of frequency are modified in a number of ways. If a form has low semantic power, or if it requires changes in word order, it will be learned late, as will structures having a variety of forms. Variations in strategies and speed of L2 acquisition reflect psychological differences, and must be understood before a definitive model of universals in L2 learning can be developed. (DB)

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Second Language Learning - Universals?

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If we look at the classic studies of second language learning, there seems to be little basis for talking about universals in second language learning. Leopold's Hildegard, learning two languages simultaneously, always showed a preference for one of her two languages (depending on what country she was in). Ronjat's Louie used both of his languages, switching with no apparent difficulty according to the language of the person he spoke to. In more recent work of sequential acquisition of a second language, Huang's Paul, given two and a half hours exposure to English a day, learned English so rapidly that in five months it was difficult to find ways in which his language differed from that of his peers. Young's Alma, in two years of observation, has said only a few words of English given even greater exposure to English each day. The differences seem very great indeed. Yet, if we believe that language is rule governed and that language acquisition is the development of the rules of the language, then it seems there must be some similarities in strategies used to acquire these rules.

The data we have looked at for evidence of universals is from approximately fifteen observational studies of forty second-language learners. In all cases the learners acquired the second language naturally; that is, they were not taught the language in any formal way. Subjects will be referred to by name rather than by investigator hereafter; the studies are listed in the reference section in full.

We looked at the data first for evidence of shared sequence in acquisition of certain features of English. The first thing that strikes one in looking at the data is the relative ease with which the noun phrase is developed in comparison to the AUX + main verb system. (In this paper AUX will include tense, modal, progressive and perfect aspect [AUX→t (M), (have+en) (be+ing)]). Since AUX development is spread out over a fairly

long period, sequential acquisition, if there is any, should be apparent. Because negation and question formation require changes within the AUX, these too were investigated.

In Table 1, you can see that most learners began with neither AUX

Insert Table 1 about here.

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nor main verb in their utterances. Their two-word utterances are almost all "introducer" "That... NOUN sentences (1). Some verbs do, of course, appear in two-word utterances and in these, the verb is in base form (2) unmarked for tense. Many learners acquired two or three verbs which they used to cover all verb meanings: we've called these "dummy verbs" since they simply function as a filler for the verb slot. Examples given are from Takahiro, a three-year-old Japanese boy (3). Be begins to appear, first as is, then moving later to 'm and 're (4). -ING is the first appearance of aspect (5), usually beginning as -ING alone (5a) and then, as the person develops be, the cop begins to appear (5b) along with -ING. There are many lapses with either the BE or the ING dropped as the form is developed. Some learners acquire the "going to" future at the same time as the ING form; others acquire it much later. For those who acquire BE+ING first and then the "going to" future, the addition of the going-to form usually requires them once again to re-sort through all the forms. There is more evidence of be deletion and some confusion as to just what gets marked with the ING (5c). Modal acquisition order varies a great deal from learner to learner. Some acquire can't first, then can in questions and finally in statements; others reverse the order (6). We will have more to say on can later.

Tense acquisition on the main verb also varies (7). For Adam's subjects, three learned past first; four learned present first, and two left the verb unmarked for tense during the two years of observation. Other subjects appeared to learn the present/past distinction simultaneously though they seem to have more difficulty in producing the third person singular endings for present tense than the -ed endings for past. That is, if an 80% or 90% criterion level is set before acquisition can be claimed, then present forms are later than past forms. Perfects were used only rarely during the two-year observation studies and not at all in the observational studies of shorter

TABLE 1

AUX Development

1. Ø

This kite. } (Paul)
Me Paul. }
I my cat to Andy. (Homer)
Me good. }
He champion. } (Ricardo)
He teacher math }
It hot. }
I happy... } (Loila)
I okay. }
I all day here. }

2. V (no AUX)

Go away. } (Hildegard)
Push in. }
Wash hand. (Paul)
I fall down again. (Rune)
Me watch TV. } (Ricardo)
Me exercise. }
Mrs. L. tell me. }
You go in school. } (Loila)
He go in apartment. }

3. Δ V's

3a. (Takahiro)

I get { racing car (want)
a shovel car (see)
more (want)
high (am)
no garage (don't have)
high house (am building) }

I wanna { orange juice (want)
driver (am)
school today (going to) }

You do { eye. (Wink!)
this racer. (race it!)
broken one. (fix it!) }

3b. (Homer)

I my do { this way.
that.
that one. } It's a { do this.
do jump.
that do something. }

It's a do something airplane something do do rock not do rock do do takhta (wood). Something do this (swish noises). It's a going and do that airplane. I my do that do do the my Mark. It's a something do do glass. Do jeep?

4. be is--'m, 're

This is freeway. } (Paul)
This is ice cream }
Is lemonade. } (Homer)
Is no good. }
Is bad day. } (Ricardo)
One people name is Cochise. }

5b. be

I'm write. } (Paul)
I'm open the table. }
I'm get another. } (Homer)
I'm keep it. }
One man is talk..uh..play trumpet. (Ricardo)

5. BE + ING

5a. ING

I no pushing. (Paul)
Elizabeth coming. } (Homer).
Coming back see ya later. }
We climbing. } (Rune)
All crying. }
You playing. (Enrique)
You necessary working. (Ricardo)
She no looking. (Loila)

5c. GOING TO future

I no going to be your friend.
He no gonna do purple. } (Enrique)
You no gonna cry. }
When you're going to doing the car? (Juan)
Later going to pickyaup Alisha. (Loila)

6. can/can't
will/won't (no obvious ordering)

7. Tense + Verb (see Adam's data)

8. have + en acquisition

*Examples are arranged by age of subject. That is, Paul and Homer are in the youngest bracket, the 4 to 5 year old bracket. Juan and Enrique are in the 7 to 8 year old group. Ricardo is a teen-ager and Loila is an adult.

time periods. The perfects in the data usually had either tense or participle form "errors".

The AUX system is effected by negation so we also looked at the data for evidence of sequence similarities (Table 2). Neg usually first appeared

Insert Table 2 about here.

preposed (1a) though there were a few examples of postposed negation, There are early routine formulas "I don't no" and "Don't!" (1b) and a few neg imperatives with no preposed (1c). The neg is then moved into the utterance, placed before either the AUX or the main verb (2a before be, 2b before modal, 2c before verb). Some learners tried out a few alternative positions (2d) but these were exceptional examples rather than typical. Don't V! imperatives also begin to appear. There were two exceptions to the move of negation to a place before AUX or verb, those involving the modal can and the tense carrier do. The negation for can appeared immediately as can't rather than no can for some subjects; there are, however, many examples of subjects who first went through a no can stage before attaching neg to can. Don't also appeared as a unit in some of its uses for some of the learners. Most learners persisted in "I no want" rather than "I don't want" utterances but negative imperatives quickly evolved from "no touch!" to "don't touch!" In fact, some subjects began negative imperatives immediately with don't rather than no + Verb. There is, for most learners at this point, no real evidence of do-support at all. Rather, don't and can't are learned as units and don't appears to be more of a negative marker than a tense carrier. Later, after do-support has been acquired, negative concordance is shown on -definite elements in the sentence (5). A few subjects also attached neg appropriately to the small number of have+en examples but this again usually forced "errors" in other parts of the utterance (6). The general order then is preposed neg to neg before AUX or verb, neg attachment to modals, and finally do-support with negation.

Question formation also follows a sequence (Table 3). First, rising

Insert Table 3 about here.

intonation is learned (1) or transferred from the first language. This is quickly supplemented by tag questions (2) in the data for most subjects. WH-questions begin with WH-fronting (3) frequently before the copula has

TABLE 2

AUX Development with Negation

1. Preposed neg.
   not is tall } (Homer)
   no come. }
   no this. (Juan)
   no break? (Enrique)
   no ocean. (Ken)

Routine Formulae | Neg Imperatives
I don't know. | Nó open it! } (Enrique)
Don't! (All Ss) | No look it! }

2a. Neg + be
   He not was here. (Adam)
   This not truck. (Paul)
   That no Alma. (Enrique)
   Me name hot like that. (Juan)
   No is good. (Ricardo)
   This no is chicken. (Chamot)
   I no believing me. (Loila)

2b. Neg + M
   We nó can go on bus. (Adams)
   You no can go. (Ken)
   I can't see. (Juan)
   I no wanna play. (Adams)
   Susie no wanna get off. (Enrique)

2c. Neg + V
   I not cheat. } (Ken)
   I no like small. }
   I no have punch. } (Enrique)
   I no got sister. }
   I no like cookie }
   Me no understand. (Ricardo)
   He no like coffee. }
   I no remember. (Chamot)
   I no feel better. } (Loila)
   She no have time. }

2d. Exceptions
   I not want this } (Paul)
   I want not go home. }
   This is no freeway.
   I like that no. } (Hildegard)
   Uh-uh I want that. }

3. can't trials? (Enrique)
   Bus come and no can't, can't got it.
   Can nó can't get milk.
   I can can't fly nó more.

4. don't to genuine do-support
   You don't play with the kind. (Ken)
   He don't got big mouth. } (Enrique)
   I don't get off. }
   He don't like. } (Juan)
   He don't be dead! }
   I don't set on the chair. (Rune)

5. -def.
   He doesn't have no crayons } (Adam)
   I ain't gonna never. }
   Nobody won't. }
   I don't have no pumpkin. } (Enrique)
   I don't want no milk. }
   No, I don't see sothing. } (Juan)
   I don't see noth...any. }
   You no have a nothing dog.

   I don't know nothing. } (Loila)
   I no hear nothing. }

6. Have + en
   I haven't do it. (Adams)

TABLE 3

AUX Inversion in Question Formation

1.
This tree?
We're going home? } (Paul)
This name?
This is Canada?
You studying? } (Homer)
I'm going UCLA?
Is good?
Play blocks? } (Adams)
You will finish?
Tomorrow is Saturday? (Chamot)
You see?
You go? } (Loila)

2. Tags
George come school, no? (Ken)
You Joe, okay?
Sit here, okay? } (Paul)
You want tea, no? (Loila)

3. WH-fronting
3a. be
Where my ball?
What you doing me? } (Hildegard)
Where you was?
What you was doing?
What you knitting?
What you reading to-yesterday? } (Rune)
Why the baby crying?
What her going to making?
3b. V
Why we not live in Scotland? } (Rune)
What Jane give him?
Where you put it?
Why you speak French? } (Chamot)
What you said?
When you up? } (Loila)
When you go your house?
3c. can-inversion
How I can finish? (Chamot)
Can Ken have some juice?
Can I play? } (Paul)
I, can you play with the ball?

be-inversion trials?
Where's Mark is school?
Where's Mark is? } (Homer)

Where's pen/car/turtle, etc.?
Where is my ball? } (Paul)
Where is my hot wheel ?

4. Verb-inversions
Like you ice cream?
Drive you car yesterday? } (Rune)
Like you me not, Reiden?

What say that?
Where goes the eraser? } (Adams)
What draw a tree?

5. be-inversion
Is it Misty?
Is lemonade? } (Homer)
Are you play?

6. do-support
What you did in Rothbury? (Rune)
Why he don't run? (Juan)

Are you a good boy?
What am I doing? } (Paul)
Is this yours house?

7. Avoiding Inversion Rules
You don't want to go?
This is my name? } (Paul)
Jim is coming too?
You put the belt on?

8. Embedded Q's
I no know what is it. } (Chamot)
I don't know what is her name.
I don't know where is mines. (Adams)

developed (3a). For many learners, tense has not been acquired and since there is no do-support, do does not appear in questions (3b). Modal inversion seems to be the first inversion to take place (3c) but it may well be formula learned rather than a true inversion. Some subjects try verb inversion (4) but there are very few examples of this phenomenon. When it does occur, it is usually explained away as first-language interference though it could as easily be attributed to rule testing. Be-inversion (5) occurs before do-inversion (6). And during the whole sequence, all learners use rising intonation as the preferred form for all questions, thereby avoiding inversion completely (7). Embedded questions are all "I don't know" + Question with the question usually showing be-inversion. It seems rather unlikely that these are embedded questions at all. The intonation curve may cover the complete utterance but it still appears to be a sentence plus a question.

Having roughly outlined the sequence of development, the important questions involving universals can be discussed. The first have to do with questioning the sequence: how universal is the sequence and how clear is it?

As we have already noted, the sequence is not universal in the sense that every child acquired each item in the same order. For example, Paul never had a "Where ball is?" stage; all his where-Q's included be-inversion right from the start. His can-Q's also appeared immediately with can inverted ("Can I play?") rather than leaving the can inside the sentence ("Where I can play?"). Most of the other children did go through an intermediate step before inverting can.

Secondly, the sequence is not always clear. There is a great deal of overlapping of stages and the amount of overlapping varies from child to child. Paul, for example, moved from stage to stage with a minimum of overlapping of old forms. To be sure, he still avoided question inversion through all five months but, in looking at the data, the switch from stage to stage is neat and clear. He is a real "rule former". His data is very nice to work with for that reason. Other children, for example Homer, are what we have called 'data gatherers". At no point can one say now he has this rule. If one used a 75%, 80% or 90% criterion for appropriate use in

obligatory cases over a two-week period, we could only say he's acquired nothing. Yet his speech becomes more and more fluent, more and more forms appear although nothing seems to be sorted out. Of course the same thing happens in research: some people begin organizing or sorting their data almost before they start collecting; others gather and gather and the organization or sorting out seems to be minimal as they go along. Yet both types of learners seem to function well. Sorting, even for data gatherers, seems to go on but not in a way that's always obvious to us.

With these reservations (that there is some variation in the order of acquisition from learner to learner and that different people seem to organize their rules in more or less obvious ways), we do believe that the sequence is reliable.

The most important question then, if we accept the similarity of sequence in acquisition, is why this sequence? Why is the data ordered as it is and why do we get the kind of variations from the sequence that we get? That is, are there any explanatory (rather than descriptive) universals to be talked about?

In some cases the answers are easy. If we look at the input data (in the few instances where it has been included), it is obvious why the data includes so many "This...NOUN" sentences and "This...NOUN?" questions in the beginning stages. The learners in all these "non-teaching observational studies" are, in fact, being "taught". In the "observer's" attempt to get some data in the initial observations, they are subjecting the learners to a constant barrage of "What's this?" "Is this a NOUN?" questions. It's small wonder that "This...NOUN" utterances predominate or "This...NOUN?" questions appear first.

In some cases the answers are not easy. The confusion in acquisition of can is a case in point. Some learners seem to learn can first in questions, others in negative statements, and others in affirmative statements. Part of the problem is probably lack of input data to show which form is used most frequently in language addressed to the learner. The other part of the problem is that we haven't bothered to look at the semantic content of can. In some of this data where questions with can appear first, they seem to be concerned with asking permission while the can't form learned later is used for inability. We need to go back over all this data to try to sort out permission/ability/probability, looking at the frequency of each in the input data as well, to explain the variations in the acquisition pattern.

It is also important when looking for explanations to consider all the possible alternatives to explain variation of forms within one subject's data. One of our favorite explanations is the notion of rule testing. That is, if the child says (as Rune did) "What did you do/doing/did to-yesterday?" over a number of trials, we say that he is testing out the kinds of forms he can use in that position or that he is trying to find the limits of each of the forms. Feedback from listeners, including himself, helps him to find the limits for each. This is an appealing explanation. Anyone who, in learning a second language, has whispered various forms to himself to see "which sounds best" believes in the validity of rule testing. But I think we over-use this explanation simply because it is so appealing. If Homer says (as he did, Table 3, 3a) "Where's Mark is school?" or "Where's Mark is?" we could say he is testing out the be-inversion rule. That is, he has the copying part but hasn't yet learned to delete be in the statement. Or in Homer's do something samples (Table 1, 4b) we could say he is working out verb and object ordering. However, in each of these cases it is important to consider alternative explanations as well. It may very well be that these are forms in free variation and no real testing is taking place. In the question examples he might also be repeating the question and incorporating the answer (where's Mark and Mark is school). In the last do something example you have an indication of one way in which he has established a very fluent flow of speech by the use of two dummy words do and something. He may simply be using them to maintain his fluent flow as though they were nonsense words. A number of people have suggested that he is simply babbling (as though babbling did not serve any function, the McNeil position). Most adult second language learners admit to a lot of sub-vocal babbling of this sort, particularly learners who are immersed in the second-language culture with intensive pressure to learn the language. It's a way of trying to deal with the speech contours and rhythm of the language. Another possible explanation of what is happening is that he is using his apparent monologue as an effective way of dealing with Mark, the boy with whom he played during much of the data collection. As Mark began his monologues during play, Homer began his do something speech. He also began shadowing some of Mark's speech. That is, if Mark was talking about his airplane, Homer would immediately shadow in the word "airplane" in his monologue. This made it exceedingly difficult for Mark to continue talking. It's a very effective device. The important thing is not to accept the first interpretation but

to look for others. While the first explanation may be the most important one, it is often a combination of several reasons which seems the closest to the truth. Everyone is, of course, subject to accumulating evidence for his own favorite explanations.

A more dangerous example of interpretation error is that acquisition of form means acquisition of function. This is especially clear when we look at acquisition of tense. We have said that the ING form is the first form to appear and that is true. It appears, but it simply is not true that it's function is clearly acquired. That is, the ING form is used to talk about past, present, the moment of speaking, and both future probability and future. This occurs in the data for Leila, Ricardo, Enrique, Juan and Homer. Gough noted that Homer even used it for imperatives. Why then does it appear so early? One reason may be the frequency of ING in the input data. We do not have enough input data to be sure about this but Legum's study for SWRL shows that the ING form is the most frequent form in K-3rd grade classroom language. A second reason is Slobin's perceptual saliency explanation. Third, Gough has pointed out that since progressive covers not only moment of speaking but also various future functions, the boundaries for its use are not clear. There are a variety of functions rather than just one to be learned. Once again we need to go through the data to look at function rather than just at form.

Perhaps a better example of use of structures which are not really "acquired" is from Enrique's data. While he had a great deal of difficulty with the article the, he finally reached a 90% criterion level on it. One month later, he suddenly began using something new: Spanish articles and an invented article le. Le seemed to an amalgam of a Spanish article and the. It's difficult to say why he made this sudden change after apparently acquiring the. Perhaps rapid development of other parts of the language system caused the regression or perhaps he still had not really sorted out the function of the article system at all.

After looking at all the data, it seems very clear that knowledge of input language is extremely important. In the few cases where we do have both production and input data, we can show fairly clearly that frequency of structures in the input data does influence the order of acquisition of structures. As an example, Table 4 shows question development along with the

questions asked of Paul as input data. The stages referred to are: stage 1= months 1 and 2 stage 2 = month 3, stage 3 = month 4. The questions in the input data are ranked by frequency. The table shows fairly clearly, I think, that questions asked frequently are also learned as formulae and then acquired as rules. Frequency of question types in the input data does influence the kinds of questions that he acquires. Tracing the development of Where's questions and Can questions explains why these were learned without an intermediate stage before inversion. The two question types were extremely frequent in the speech of people talking to him. More interesting, perhaps, is why he learned some but not all the questions asked him frequently. That is, why did he not acquire questions requiring be-inversion and do-support? Both these forms appeared very late in his production data. Partly it is a matter of a required change in word order. Yet while word order changes increase difficulty, he was able to acquire can and where's questions which also represent word order change. The difference must have to do with the semantic content of can and where's as opposed to be and do. Do is a tense carrier and is is an equivalence marker of sorts. Neither of these functions carry the semantic weight of can or where's. Since the function of do and is is not of any clear semantic value, it's not surprising that such questions were acquired late despite the frequency of the forms in the input language. The number of variants for be and do also add to the difficulty of acquisition.

Insert Table 4 about here.

Noting that some of the data appears to show evidence of interference from the learners first or dominant language, we have also looked at some of the data from the contrastive analysis hypothesis. Stated in its strong form, wherever the two languages differ, interference from the first language can be expected. Ravem, Huang and others have shown that the strong form of the hypothesis does not explain the data for their subjects. However, interference obviously does occur in most of the studies we have looked at though there are a few exceptions. In the cases where there is no interference, the children still frequently explained new vocabulary items to themselves or to others in their first language. Gough has a very nice example where

TABLE 4

Input Frequency and Question Production

Input Frequency		Paul's Question Production
	Stage 1	
1. What's this?	Formula	Are you ready? Hi, how are you?
2. Is this a NOUN?		What's this? Where's the NOUN?
3. Where's the NOUN?	Rule	This...slipper? This... ball?
4. Do you want to { go home? / take off your jacket? / make a picture? / help us? / eat that? }		Table? Two cat? Fish...see? Okay?
	Imitate	What's my name? How are you doing?
5. Can you { kick it? / button it up? / drive a truck? / say teacher? / see K over there? }		
6. Okay (as a tag question)		
7. Which, what, who Q's.		
Stage 1 plus	Stage 2	
1. What are you doing?	Formula	Whose is this? What now?
2. Are you VERBing?		
3. Wh /whose Q's.	Rule	Stage 1 plus Where's Kenny? Where's pen? Where's Teddy's car. I'm going too, okay? You sit down, okay? T, sit here, okay? This is my book? This is jacket?
	Imitate	Which one? Where are you going?
	Stage 3	
Stage 1 +2, fewer What's this Q's Fewer "can you" Q's.	Formula	May I be excused?
Would you { give me one please? / come and sit here? / teach her how to write your name? / help E? }	Rule	Stage 1 + stage 2 plus Can K have some juice? Teddy, can I play? Jim, can you play with the ball? Can I write my name?
Why questions.		Is this yours house? Are you a good boy? What am I doing?
Did you/Have you questions.		
"How many?" "What colour" questions.		Also "how many" and "what colour" Q's

Homer simply explains away a new vocabulary item he doesn't understand. Mark had been warning Homer to be careful of the blocks that they were using to build with: "Quit making it so tall." Homer responded "What does is/sulta/? What does a/sulta/?" Mark responded, "Don't make it so tall." Again Homer asked for the meaning of "so tall" and when no response was given,

> Marin muile sulta (I ask what is this sulta)
> Marin moitle sulta kha mendile (I say, "He says sulta is something)
> Marin lit kha mendile. (I say there's no such thing as sulta.)

Interference forms are frequent in most of the data but there is no sure way of discarding alternative explanations for interference data (see Schumann, Selinker, Burt and Dulay, Corder). Yet some samples, such as those including language mixing, cannot be disputed.

The amount of mixing varies markedly from subject to subject. Some learners never mixed. Others used their first language, substituting second language vocabulary items as they learned them (making second language learning look like relexification of the first language). This was particularly so in the first-year Spanish immersion program for Anglo children. Table 5 shows that, as these subjects began acquiring Spanish,

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Insert Table 5 about here.

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they tried to communicate with the teacher by putting in as many Spanish words as they knew. Obviously more than relexification took place because after two years in the program the children are fluent Spanish speakers. Some subjects used a large number of words from their first language (2a). Few of the mixed words, however, were verbs; most were nouns or cognates for the two languages. There was a lot of evidence of repetition of vocabulary items in both languages (2b). Some learners show occasional utterances that appear to be direct translations from one language to the other (3a). It is easy to force a large number of such instances by giving students a translation task where no time delay is allowed (3b). Fluent bilinguals also mix and switch languages (4a and b) but this is quite a different phenomenon from interference. This peer language of fluent bilinguals is due to social factors and is beyond the scope of this paper.

If "interference" is to be used as an explanation of data, it would be more useful to discard the strong contrastive analysis hypothesis and

TABLE 5

Interference Examples

1. Relexification in beginning stages (Cathcart)

Si, I think. I got a quarter for leche.
I'm gonna get a drink of agua.
Tres more días and we're going to the zoo.
I'm a avion. I have a bicicleta roja.

2. Mixing

2a (Ricardo)	(Hildegard)
No speak too mucho him.	Papa, you arbeit too much.
Me no posible go Los Angeles.	I can't give you any Kuss because I have a Schmutznase.
No campo for play.	Ich will showen dir.
He is entranador.	I liebe dich so much. I really do liebe dich.
He go for Europa.	

2b repetition

Is no bueno, no good.
In mi, my house. (Adams)
Ohisama, okay the sun.. (Takahiro)
Zoosan, eff-- (attempt at elephant)

3. Translations

3a. In free data

Je suis fini (je suis pret from ich bin fertig)
un bateau faire je veux mes pantoufles mettre sur ce chemin on peut facile marcher.
mama sait de tres jolies choses peindre. (Ronjat examples)

Du kannst haben das. Das ist nicht in da. Ich kann spielen mit ihr morgen. (Hildegard)

The water hot is ready. two paper white Is very well (Leila)
Knife of butter teacher of music card of post office (Chamot)

4. Mixing and switching (not considered as acquisition interference)

I don't know si in America you know man que you help. Pero is so very cold.
The day que I got hot. (Shapira)
Dakara she had her own way. Dakara hard to live with ne. Demo it's not so bad, right? (Uyekubo)
Hey, no, es para la cocina, get out! Shoo! (Cathcart)
Esta upside down. Es D en mi casa with a t-shirt.

evaluate the Stockwell, Bowen & Martin hierarchy of difficulty instead. Susan Ervin-Tripp has also suggested, as does the Stockwell, Bowen & Martin hierarchy, that interference will occur most frequently (and be more likely to stabilize as a fossilized form) where the form is simple in the first language but complex (variety of forms, variation in word order, etc.) in the second language. No careful work has been done to test these hypotheses with the data. It deserves to be done. We also need to look at interference phenomena over the age range of our subjects. My impression is that interference and language mixing are not as age graded as has been thought; mixing may be as much "personality" as age related.

To sum up, I believe that the sequence of acquisition is only important in what it can tell us about language acquisition, what it can show us about what the learner is doing. Before we can say much with certainty about second language acquisition, we have to reconsider or at least be more careful in our interpretation of the data. We need to look at the input data as well as the learner's production data (this is somewhat easier to do in second than in first language data). From what we have learned from the data so far, it seems that communication is the goal of all learners and parts of the language system which are not important to communication are learned slowly. However, if a structure is extremely frequent in the input data, the learner will produce it. Effects of frequency are modified in a number of ways. If a form has low semantic power, it will be learned late. If a form requires changes in word order, it will be learned late. If there are a variety of forms for a structure (e.g., plurals with /s/,/z/ and / z/ forms), it will be acquired late. Forms of low frequency, low semantic power, requiring rules for changing word order, and having a multiplicity of forms (if there are such things) will probably never be acquired. These ideas are not new. Slobin, Brown and others have talked of them frequently in discussing first language data. With more careful recording of input data, these notions can be more solidly validated for second language learning. With more careful analysis, the interference factor can also be tested.

Last but not least, we need very much to look at that indefinable term "personality" to try to find some way of talking about some of the extreme variations in speed of second language acquisition (Paul vs. Alma) and the variations in strategies like those of Takahiro and Homer, our

"data gatherers" as compared with the "rule formers". We need to understand why some children maintain both their first and second languages easily (Louie) while others (Hildegard) do not. This may be an impossible task but one that, nevertheless, must somehow begin if we hope to say very much more about universals in second language acquisition.

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