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ABSTRACT

Three hypotheses are examined in relation to English copula and negative utterances produced by three native Spanish speakers. The hypotheses are interference, interlanguage and L1=L2, which states that acquisition of a language by second language learners will parallel acquisition of the same language by first language learners. The results of the study are as follows: (A) In the copula construction, utterances such as "Is a book" probably represent interlingual identifications of the English "it's" and the Spanish "es." They do not appear to be produced by interference from the Spanish syntactic device of subject omission. (B) The acquisition sequence of the English negative by the subjects does not correspond to the "stages" described by Klima and Bellugi for children acquiring English as a native language. This result tends to disconfirm a strong version of the L2 = L1 hypothesis which would claim that the acquisition order in both the first and second language should be the same. (C) It is difficult to say whether acquisition of the negative by the subjects is systematic and developmental, because these concepts are not clearly defined in any versions of the interlanguage hypothesis. (D) Two of the subjects evince different strategies in acquiring the negative. (Author/DB)

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Testing Hypotheses about Second Language Acquisition: the Copula and Negative in Three Subjects*

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In our research at the Harvard Graduate School of Education we are examining the natural, untutored acquisition of English by 6 native Spanish speakers: 2 children age 4-6, 2 adolescents age 11 and 12, and 2 adult subjects whom we visit twice monthly for an hour. All of the subjects had been in this country less than 3 months when we began. The data is collected in three ways:

1. Spontaneous speech recording in which the experimenter engages the subject in conversation.
2. Experimental elicitations in which the subject is asked to do such things as imitate or negate a model utterance.
3. Pre-planned socio-linguistic interaction in which subjects are taken to parties, restaurants, museums, sports events, etc. in order to collect speech in varied natural situations.

All of the data is taped. In addition to the investigator, a bilingual transcriber is always present, taking notes. The transcribers then transcribe (and where necessary, translate) the entire tape in a standard format along the lines suggested in the Slobin Manual.

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For purposes of this discussion we will be concerned with one subject from each age group: A (an adult male), J (an adolescent male), and M (a female child). The data to which we refer represents approximately the first 3 months of a 10 month study.

In addressing the problem of how to analyze second language acquisition data, we have chosen to look at the speech of our subjects in terms of hypotheses that have been proposed to account for second language learning. Specifically, we have analyzed our subjects' acquisition of copula (forms of be) and negative for evidence to support or contradict three theoretical orientations: the interference hypothesis, the $L2 = L1$ hypothesis, and the interlanguage hypothesis.

The interference hypothesis maintains that when a learner attempts to acquire a second language, he will make errors in the target language which are predictable from his native language and caused by prior knowledge of it. That is, his native language and its structure will 'interfere' with learning the second language. If interference were occurring with our subjects, we would expect their English speech to reflect features of Spanish.

The $L1 = L2$ hypothesis put forth by Heidi Dulay (1972) states that the acquisition of a target language by second language learners will parallel the acquisition of that same language by first language learners. Although phonological interference is acceptable, any syntactic interference from $L1$ would violate this hypothesis. The $L1 = L2$ hypothesis

limits itself to a description of child acquisition and does not make any claims about adult behavior.

The interlanguage hypothesis proposed by Selinker (1972) suggests that when one tries to learn L2 after having already acquired 'meanings' in a native language, the utterances which will be produced will not be identical with those produced by native speakers of that language, nor will they be exact 'translations' from the native language. Rather, a new, separate language system will develop, a system of interlingual forms. One version of this hypothesis (Nemser 1971) proposes that the 'learner language' will not only be systematic but will also evolve in successive acquisitional stages from initial through advanced learning.

COPULA

The utterances in which our 3 subjects use copulas fall into 3 patterns:

Is X
NP Cop X
NP Ø X

In a UCLA Master's thesis, Butterworth (1973), a student of Evelyn Hatch's, found these same three patterns in a three month study of a Spanish speaking adolescent.

The first construction, Is X, may provide evidence of some kind of interference from Spanish where, given a clear context, the subject NP need not be expressed. The subject is not entirely 'absent' as it is also expressed in the verb inflection. So, for example, we could have "Es natural, Es el almuerzo", etc...

Thus our subjects may well be following the Spanish convention of omitting redundant subject NP's. With our adolescent, J, this construction comprises about 50% of his copula utterances for the first 3 months, for A, 32% and for M, 22%.

Another explanation for this construction is also possible. A large percent of our subjects' Is X constructions could also be rendered It's X in English:

1.) 92% of A's Is X utterances could be glossed It's X. The remaining 8% of the utterances can be accounted for by he and they as subjects.

A: Is me, no? [=It's me, no?]
Is North American. [=He is North American]

2.) In J's case 78% of the Is X sentences represent It's X. The remaining 22% of the utterances appear to have he, she, there or they as subjects.

J: Is good. [=It's good]
Is the sister of my friend. [=She is the sister of my friend]

3.) 78% of M's Is X constructions can also be assumed to be It's X. Her exceptions include he, she and they as subjects.

M: Is the house. [=It's the house]
Is Shirley Temple. [=She's Shirley Temple]

In Spanish, as we have noted, It's X would be expressed as Es X, leading one to speculate that the phonological similarity and grammatical similarity (both as introducers of equational constructions) might lead to an interlingual identification of the form:

(English) It's \ (Spanish/English) Is
(Spanish) Es /

Further evidence for this are several occasions where the subjects reduced it's to It is to is in an imitation task.

A: It's raining Tape 4
Is raining

M: It is my automobile Tape 6
Is my automobile

Other evidence for phonological interference comes from spontaneous expressions of M: /Iss/ the house, as well as from imitation task sentences:

M: It is my automobile Tape 3
/Iss/ my automobile

To further explore whether the Is X construction is a product of subject NP omission caused by interference from Spanish or whether it constitutes a simple phonological reduction of the It's X form, we asked A and J to make judgements about the acceptability of Is X utterances. For example,

E: Tell me if these sentences are correct.
IS MY FRIEND.

S: No.

E: How would you fix it?

S: He is my friend.

J rejected all Is X sentences offered by the experimenter. When the appropriate subject, was he or she, he corrected the sentence accordingly. When given a sentence like Is a book, he corrected it by giving back the same form: "Is a book." A corrected Is X sentences where the appropriate subject was he or she, but accepted sentences where the subject could be rendered it. So in terms of the interference vs. the L2 = L1 hypotheses, the observed Subject NP absence does not bear heavily against

the L2 = L1 hypothesis, since within that framework phonological interference can be tolerated. Nevertheless we still must account for our subjects' constructions in which the subject NP does appear to have been dropped. Quite possibly we have at least some transfer from Spanish.

NEGATIVE

Negatives are the second grammatical feature we examined. They are a particularly productive source of information for the following reasons:

1. Negative is a universal concept expressed in all languages.
2. Negative is fairly complex in English having both a negative marker and the auxiliary.
3. The negative has been treated extensively in the first language acquisition literature.

Our analysis of the negative is currently limited to proposition negating utterances; by this we mean the negation of the main verb within an utterance:

A: You no understand.
J: They don't like.
M: You don't speak Spanish.

Thus we are concerned with the negative particle and its relation to the auxiliary system. For this analysis we will not consider the indefinite and indeterminate forms of the negative.

In well formed English, the negative particle appears most simply in conjunction with the auxiliary. Where no modal auxiliary (will, can, may, must, could, etc.) appears, the semantically empty 'do' is inserted prior to the negative particle.

The development of the auxiliary 'do' is a most revealing phenomenon - particularly as it only marks tense.

In general, for our subjects, the negation of propositions is not a frequent phenomenon, although there is a heavy reliance on a few specific utterances as "I don't know" and "I don't think so." These utterances occur at the earliest interviews and appear to be learned 'chunks' which serve the function of indicating either no knowledge of word or phrase in English, or the desire not to proceed in answering a question. In addition, in our subjects' speech there is frequent use of the anaphoric 'no' in which the negative particle is used to negate a prior utterance and not the proposition in which it is contained. For example, the experimenter asks, "Is it your book?", the response may be "No, is my brother", where 'no' negates the previous question and not the proposition which follows.

Klima and Bellugi (1966) have discussed in depth the acquisition of the negative by children learning English as their native language. They divide the development of the negative into three early periods. In the first period the negative is of the form:

Stage I.

[{ no } Nucleus] S or [Nucleus - no] S
[not]

No singing song
No the sun shining
No mitten
No heavy
No raining
No put hand
No have one

Here the negative element simply appears before or after the intended sentence. Approximately 47% of A's utterances look like they might be "No. + Nucleus" forms. However, upon closer examination we find that 17% of the utterances are of the form No V which follow the Spanish pattern where the subject NP may be omitted since it is incorporated in the verb inflection (e.g. No can say it = No puedo decirlo) and therefore would not be

No + Nucleus sentences:

No remember
No go to Lechmere
No can say it
No understand

Most of the remaining 30% appear to be fragments of copula utterances in which both the it or there and the copula have been omitted:

No wood (=It is not wood)
No Portuguese man (=There are no Portuguese men)
No a woman (=It is not a woman)
No necessary (=It is not necessary)

However, some of Klima and Bellugi's No Nucleus utterances might also be glossed in this way, although they do not do it themselves. (They provide no glosses):

No mitten (=It is not a mitten)
No heavy (=It is not heavy)

Therefore, the question remains: In these utterances, is A omitting the subject and copula or is he following a No + Nucleus strategy? It is probably best to assume the former because at the same time he is using No + Nucleus-like constructions, he is also using a variety of other negative constructions:

NP Aux Neg V
I don't go school
I don't talk

In J's data there are four (25%) utterances which resemble the No + Nucleus pattern, all of which are of the 'No-V' variety and which reflect Spanish word order.

No V
No have more
No look finish

But J also has other negative patterns and is not limited to the No-V form:

NP Aux Neg V
They don't like
I don't understand

NP Ø Neg V
I no come for my mother
Children no have experiencia

The child, M, has one utterance resembling the No + Nucleus form (No bird) but context indicates that this form is a copula fragment in which both it and is are absent. In addition she also has other negative forms:

NP Aux Neg V
You don't speak Spanish
He don't have a hands

NP Ø Neg V
Carolina no go play
I no can see

None of Klima and Bellugi's subjects in Stage I had a no + is construction. Our subjects all have some examples of this form:

A: No is pain is nerves
J: No is big
M: No is wet

Thus our data does not evidence Klima and Bellugi's initial negation strategy because:

1. Our subjects exhibit patterns other than the No + Nucleus form.

2. The examples which do resemble that form can be explained on other grounds. That is, they appear to be either fragments of copula constructions or products of subject NP absence.

3. Our subjects have no + is constructions which Klima and Bellugi's subjects do not have.

In Klima and Bellugi's second stage of negative growth the subject's show heavy use of don't, many of these utterances in the imperative form. Also present are several instances with didn't, although Klima and Bellugi do not consider these to be evidence for tense at this stage, probably because of their relatively small number of occurrences. Can't is used fairly often by their subjects. In addition, the No + Nucleus form from Stage I is still used. Stage II is also characterized by no and not within the sentence, appearing after the subject and before the verb.

Examples of Stage II utterances:

He not little, he big.
That no Mommy.

Don't bite me.
Don't leave me.
I don't like him.

We can't talk.
I can't see you.

Klima and Bellugi suggest that the sentences produced during the Second Stage do not presume full analysis of the auxiliary verb. They found auxiliary verbs in both declaratives and in Yes - No questions also to be absent at this time.

The negative structures of our subjects do not seem to fall into Klima and Bellugi's Stage II pattern either. A uses don't either alone or with no in 21% of his spontaneous proposition negating utterances. J uses don't in about 19% of such utterances, and M in about 58% or 7/12 utterances. This reflects a small sample in any event. We have one usage of can by M. Several don't can utterances appear in A's protocols. There are no instances of can't in our protocols.¹

Our subjects do not use negative in the imperative. Thus although we find don't in the data, it is not in the context of imperatives. As mentioned above, Klima and Bellugi observe that there is also no development of the auxiliary in Yes/No questions at this time. Although our subjects also do not appear to carry tense in their 'do' utterances, J and M do have auxiliaries in some of their Yes/No questions, (J 6/13; M 1/6):

- J: Do you live in Boston
- M: Do you know what happened to the bird

The 3rd stage in Klima and Bellugi's development of the negative is the 1st period of full realization of the auxiliary system. It is characterized by 1) past tense forms with several subjects, 2) present tense with several subjects, and 3) 3rd person agreement. Auxiliary's other than 'do' seem to have developed by this time (can't, won't, etc...). In Stage I Bellugi has no evidence of be; in Stage II they find be limited

Klima and Bellugi's Stage II data shows the following distribution for can't:

CAN'T - Stage II

Adam	15/113
Sarah	9/56
Eve	9/36

to the context of a pronoun subject. In Stage III, be appears to be fully developed.

Paul can't have one.
No it isn't.
I don't want cover on it.
Paul didn't laugh.

With the exception of be which does appear with other than pronoun subjects, our negative data up to this point does not resemble this latest Klima and Bellugi stage:

The pronunciation no is good.
Children no is here.

We do not have evidence of tensing or subject agreement. Nor are other auxiliary verbs employed in the negative.

Thus the negative utterances of none of our subjects fit into stages one, two or three as defined by Klima and Bellugi. In addition we do not find in any of our subjects a developmental pattern that corresponds to the one described by Klima and Bellugi. Although Dulay and Burt (1972) never claimed that the L2 = L1 hypothesis predicts the same acquisition order for first and second language learning, a strong version of this hypothesis would make such a claim. The discussion presented above argues against making a strong version of the L1 = L2 hypothesis.

The justification for comparing L2 data with acquisitional sequence in L1 lies in using that technique to get some notion of how the two processes of language development differ. Therefore it is essential that L2 data also be examined in its own terms.

Below we will describe our subjects' elicited negative utterances and in so doing will attempt to see if they show

evidence of developmental interlingual systems. That is, we will examine the negative utterances of each subject to see if they form a system and to see whether this system develops over time.

The following negating devices are used by A and J in the order indicated.

<u>A</u> :	Tapes 1 & 3	<u>no V</u> ; <u>don't V</u>
	Tape 4	<u>no V</u> ; <u>don't V</u> ; <u>no/don't V</u>
	Tape 5	<u>no V</u> ; <u>don't V</u> ; <u>no/don't V</u> ; <u>not V</u>
	Tape 6	<u>no V</u> ; <u>don't V</u> ; <u>not V</u> ; <u>do not V</u>

I no remember
I don't know, don't understand.
He no, not come outside.
I not remember the word.
They do not /playz/ chess.

<u>J</u> :	Tape 3	<u>no V</u>
	Tape 5	<u>no V</u> ; <u>don't V</u>
	Tape 7	<u>don't V</u>
	Tape 8	<u>don't V</u> ; <u>doesn't V</u>

The boy no run.
She don't saw him.
She doesn't speak.

A appears to start off with two negating devices, No V; don't V. He then adds a third device, no/don't V, that appears to be a vacillation between the previous two. Later he picks up a fourth device not V and in the last tape analyzed he drops the third device (no/don't V) and adds one more: do not V. Thus A seems to be gathering English negating devices and using them in free variation. Eventually his task will be to refine his collection of negating devices to conform to English. J's acquisition of the negative is somewhat more defined. He begins with one device, no V, and adds a second, don't V. He then uses both in free variation. Next he drops no V and retains the form don't V,

although it is un-tensed and displays no subject agreement. Finally in the last tape there is some evidence that he is beginning to differentiate on the basis of number as he sometimes uses doesn't V for third person singular.

M's negative development is difficult to characterize because in her spontaneous speech for this period there are very few proposition-negating utterances (total of 12). She seems to use don't V predominantly. There are instances of no V in one of which no precedes the modal can.

When we attempt to answer the question of whether or not our subjects' negatives are systematic we immediately confront the issue of what is meant by 'system'. While Corder (1971), Nemser (1971) and Selinker (1972) claim that the learner's language will be systematic, they do not define 'system'. Bruce Fraser (personal communication) has pointed out that the learner language may be systematic in only a trivial sense. That is, if it were totally random, it would communicate nothing. Therefore, if the learner is to be understood at all, his speech must have some systematic organization. At the opposite pole, we might say that the learner's language is systematic only if its features are predictable by grammatical rule. If we applied this criterion to our negative data, we could only say that our subjects' negatives were systematic if we could predict when each negating device would be used. We have not been able to make such predictions, but this may be due to the fact that the subjects' language is developing and that one characteristic of such growth might be the acquisition of multiple negating devices.

which are then used in free variation. We do notice, however, different strategies of acquisition among our learners. To use Evelyn Hatch's terms, A seems to be a "data gatherer" who adds negative devices to his repertoire and then uses them interchangeably. J seems to be a "data organizer" whose acquisition of negative appears to be more defined and seems to develop with less clutter. Thus to say that the learner language is systematic may mean that it evidences recognizable strategies. In any case, before more can be said about whether or not our subjects' negatives are systematic we must have a better definition of 'system' as it applies to the 'learners' speech. Although we do observe development in A and J's negatives (i.e. they do acquire new negating devices over time), the fact that we cannot yet make claims about the systematicity of their negative productions prevents us from speaking to the issue of whether the negative utterances represent a developmental system.

SUMMARY

We have examined three hypotheses (interference, L1 = L2, and interlanguage) in relation to the copula and negative utterances produced by three of our subjects during the first three months of the study.

A. In the copula construction, utterances such as "Is a book" probably represent interlingual identifications of the English it's and the Spanish es. They do not appear to be produced by interference from the Spanish syntactic device of subject omission.

B. The acquisition sequence of the English negative by our subjects does not correspond to the 'stages' described by Klima and Bellugi for children acquiring English as a native language. This result tends to disconfirm a strong version of the L2 = L1 hypothesis which would claim that the acquisition order in both the first and second language should be the same.

C. We are unable to say whether the acquisition of negative by our subjects is systematic and developmental because these concepts are not clearly defined in any versions of the interlanguage hypothesis. It is incumbent upon researchers in this field to evolve a workable definition of these concepts.

D. We did notice that two of our subjects evidenced different strategies in acquiring the negative. One appeared to gradually collect various negating devices and to use them in free variation. The other used fewer negating devices in a more defined pattern.

CONCLUSION

At the 1974 TESOL workshop on Second Language Acquisition, Evelyn Hatch pointed out the need to consider alternate explanations for phenomena observed in second language acquisition data. We feel that one way to meet this need is to analyze the data in terms of various hypotheses that have been generated about the nature of the second language learning process. This approach will help to indicate the strengths and weaknesses in the theoretical formulations that underlie second language acquisition research and thus insure that our work moves in productive directions.

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