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#### **ABSTRACT**

According to the linguistic theory of "natural order," eight English morphemes have been ranked in an invariant order of difficulty for learners of English as a Second Language (ESL). Pedagogical implications of this theory have led to the "natural approach" as a comprehensive second language teaching methodology. A case study that suggests the natural order theory has limited predictiveness, because it does not consider the pragmatic salience of these morphemes in different discourse contexts, is presented. Subjects were five native Arabic-speaking adult women at an intermediate level of ESL study. In a speaking task involving extended turns, the subjects' patterns of error for the eight were analyzed. Results indicate an order of relative morpheme difficulty suggesting that pragmatic salience comprises a balance of at least four features: frequency; form-function transparency; conspicuousness; and usefulness. The implication for ESL instruction is that to make teaching effective, larguage instructors must consider the specific, different learning tasks involved in the different kinds of discourse to which the student is exposed. (Author/MSE)



## PRAGMATICS AND MORPHOSYNTACTIC ACQUISITION:

## A CASE STUDY

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## PRAGMATICS IN SECOND-LANGUAGE MORPHOSYNTACTIC ACQUISITION:

#### A CASE STUDY

#### ABSTRACT

According to the theory of 'Natural Order' (Bailey, Madden & Krashen, 1974), eight English morphemes have been ranked in an invariant order of difficulty for second language (L2) learners. The pedagogical implications of this theory have led to the 'Natural Approach' as a comprehensive teaching methodology (1983). The present case study claims that 'natural order' theory has limited predictiveness, because it does not consider the pragmatic salience of these morphemes in different discourse contexts. In a speaking task involving extended turns, the five students in this study produce an order of relative morpheme difficulty to suggest that pragmatic salience comprises a balance of at least four features: frequency, form-function transparency, conspicuousness and usefulness. The pedagogical message is that language instructors should specifically consider the different learning tasks involved in different types of discourse.



#### I. INTRODUCTION

# I.1 The 'Natural Order' Hypothesis

In the 1970s a 'natural order' of relative difficulty was established for the L2 acquisition of eight English morphemes, in a series of cross-sectional experiments involving both child and adult learners of ESL (Dulay & Burt, 1973, 1974; Bailey, Madden & Krashen, 1974; Larsen-Freeman, 1975; Krashen et al., 1977). This L2 order referred to relative accuracy, and was based on the percentage of correct productions within the total number of obligatory contexts for each morpheme. Relative difficulty was inferred from this ranking, with the least accurate morpheme ranked as most difficult:

Least Difficult

progressive -ING (contractible) copula plural -s article (contractible) AUX irregular past simple 3rd singular -s possessive NP -s

Most Difficult

(Bailey, Madden & Krashen, 1974)

The pedagogical implications of the 'natural order' have been translated into the 'Natural Approach' as a comprehensive second language teaching methodology (Krashen & Terrell, 1983). According to this approach, the learner will acquire new language forms in the natural order, provided they are presented as 'comprehensible input' in meaningful contexts.

# I.2 The 'Natural Order' in Discourse

The notion of an invariant order of difficulty is very attractive, as the immediate popularity of the 'Natural Approach' in the 1980s has shown. If teachers can predict which morphemes are most difficult for all learners, we can accommodate and even anticipate their progress by simply exposing them to these forms in meaningful contexts.

However, we first need to be sure that the order is indeed invariant over the wide range of discourse contexts that the learner is likely to encounter. Contexts may differ according to the structures that characterize them. For example, dialogue, probably the most common discourse context, is largely structured by adjacency pairs, where meaning is negotiated sequentially across turns by more than one speaker. However, even within informal conversations, we



are likely to find what I will call 'extended discourse' contexts. Here, one speaker holds her turn over a series of utterances without interruption. Within the length of this turn, the speaker is solely responsible for the clarity and coherence of her own meaning with clarity and coherence. Such contexts occur when a speaker is narrating a story, relaying required information, or simply explaining a point of view.

The 'natural order' studies did not give specific attention to a variety of discourse contexts. Most of their data were collected from dialogue situations following the Bilingual Syntax Measure (RSM), which involved informal dialogues between experimenters and L2 learners about a series of cartoons. In response to a challenge (Porter, 1977) that the 'natural order' was an artifact of BSM conditions, Krashen (1978) cited several studies that involved spontaneous speech data and which yielded the same order. However, even these spontaneous studies did not distinguish between different contexts in terms of the discourse structures involved. For example, Krashen et al. elicited 'unrehearsed oral reports in class,' (1977: 339); but the data from these reports are collapsed with the data from 'casual conversations' and interviews, thus obscuring any effects peculiar to certain discourse contexts.

If the 'natura! order' were invariant, we should expect learners to encounter the same relative morpheme difficulty in one context as they do in another. However, the data to be presented here suggest that they do not. In this case study, five intermediate Arab-speaking students engaged in a task which involved them in a specific extended discourse task. Their productions of the morphemes in question were scored for accuracy along the lines of the 'natural order' studies, producing a very different order of relative difficulty. My claim is that this order depends, not on the intrinsic difficulty of the morphemes themselves, but on their pragmatic salience in a particular discourse context. In the rest of this section I will define the notion of pragmatic salience. Section II will describe the case study, and Section III will interpret the results.

## I.2 Pragmatic Salience

Pragmatic salience may be generally defined as the identifiabilty of a form-function relationship in discourse. This identifiabilty is not a unitary feature, but results from the interaction of several properties that may be associated with a form. These properties have been discussed under various labels in the literature, as follows.

\* Frequency. Frequency of exposure has already been offered as an explanation for the 'natural order.' Larsen-Freeman (1976) found significant correlations between this order in



the BSM studies and the relative frequency of occurrence for the same morphemes in the speech of native speakers. Her frequency count was taken from Brown's (1973) L1 study, which coded the productions of six parents conversing with their children. She concluded tentatively that the relative difficulty of these morphemes may be simply a matter of habit formation.

Frequency has also been suggested to explain learners' apparently random attachment of 3rd person singular -s agreement to Present Simple verbs (Abraham, 1984). The same feature is implied by the notion of 'discourse markedness,' with which Chaudron and Parker (1990) explain the acquisition of NP forms. And frequency, or 'availability of data,' is discussed as a factor influencing the acquisition of preposition stranding before 'pied piping' constructions (Bardovi-Harlig, 1987)

- \* Form-Function Transparency. Invariant one-to-one mapping between a form and its function has been identified as a general facilitating factor for L1 learners (Karmiloff-Smith, 1986; Slobin, 1982). With specific regard to L2 acquisition, Gass (1980) discusses the transparency of the English genitive relativizer whose, in contrast to other relativizers which allow alternation between who, which and that.
- \* Conspicuousness. The sheer obtrusiveness or uniqueness of a particular form can impose itself on a learner's consciousness and thus contribute to the salience of that form. Conspicuousness is implied by Gass's (1980)definition, when she points out that whose is relatively salient because it is the only case-marked relativizer on the NP Accessibility Hierarchy.

Phonological conspicuousness has been widely discussed in the acquisition literature. A form may be more conspicuous simply because it has some feature that another form lacks, such as stress, length or syllabicity. Thus, English progressive verb forms (base + -ING), should be more salient in terms of conspicuousness than simple base forms.

\* <u>Usefulness</u>. The converse of this feature is redundancy. A form may be salient to the degree that we can afford to omit it in discourse. From this point of view, the same form, word final <u>-s</u>, is more salient as a plural marker than as a 3rd person subject marker, because in the former function it may be the <u>only</u> marker of number; whereas in the latter it is always redundant, since subject marking is already carried by the preverbal NP. The 3rd person morpheme is frequently dispensed with in Black English, without causing any processing difficulty to Anglo hearers.



There may be more features contributing to pragmatic salience than the four illustrated above. These, however, are the ones that suggested themselves in the analysis of the present data. It is important to note that a given morpheme may have high salience in terms of one feature, but low salience in terms of another. For example, the article (definite or indefinite) is certainly very frequent in most discourse, but not very transparent in its form-function correspondence, as any ESL teacher knows who struggled through the endless lists of textbook rules — and exceptions—that govern the use of English articles. We can conclude, then, that pragmatic salience is produced the interaction of several features, rather than by the presence or absence of one.

Furthermore, as the data from this study will show, the overall salience of a given morpheme may vary in different contexts as its component features are affected by those contexts. The most obviously 'variable' feature is frequency. We would anticipate, for example, that informal narration should increase the frequency of past tense forms and reduce the frequency of 3rd person -s agreement. We might also expect the NP possessive -s to occur more frequently in a context involving many different NP referents and the need for lexical disambiguation, than in a dialogue with only one or two topical NPs, maintained pronominally. But features other than frequency may also be affected. For example, form-function transparency may contribute high salience to the -ING morpheme in a context where progressive constructions are systematically used to assign 'low focus' to certain events in relation to others (Reichman-Adar, 1984). But in other contexts, the learner may encounter this same -ING form in a confusing variety of functions, including modification as a participle and complementation as a gerund.

If relative difficulty is determined by pragmatic salience, and salience varies according to discourse context, then L2 learners should find certain morphemes more or less difficult depending on the contexts in which they have heard and learned them. This relative difficulty should be reflected in the discourse choices that learners make in their spontaneous speech, and the relative accuracy with which they produce certain forms. The rest of this paper will present data to support this argument.



#### II. THE CASE STUDY: METHOD AND RESULTS

## II.1 Subjects

This case study involves my Practical English class of five Saudi Arabian women, run by the International English Center (IEC) at the University of Colorado, Boulder, as a special service for Moslem women who would not want to participate in mixed-sex classes at the IEC. The women are at an intermediate level of English. They all studied English grammar for at least two or three years in Saudi high schools, but i'd not learn to speak until they came to the USA.

Although the women have lived here for periods ranging from one to three years, their opportunites for interactive English are limited. Most transactions are handled by their husbands, who accompany them on their errands and speak much better English. Apart from interactions with neighbors, short telephone exchanges and conversations with their ESL teacher, most of these women's exposure to English comes from the television. They are always eager to discuss political and social issues on the basis of what they have seen and heard on TV.

I asked the women to prepare overnight a two-minute speech about something that interested them. They were already familiar with this kind of assignment. The instructions were that they should not write notes in English (Arabic notes were allowed), nor learn their speeches by rote; they were simply to generate and organize their ideas. These instructions were to preclude the production of rehearsed morphemes (see Appendix 1 for samples of speech transcripts).

## II.2 Student Productions

Following the 'natural order' studies, I coded all production errors for the eight relevant morphemes as a percentage of total obligatory occasions for each morpheme. However, since occasions were not predetermined as in the BSM studies, some contexts could only be counted 'obligatory' if they were clearly entailed as part of a higher-level syntactic strategy. For example, the -ING progressive suffix was entailed by the production of AUX, which indicates a progressive construction in target speech. Thus, 'I'm feel that I'm alone' counted as an -ING error, whereas 'I playing with my kid' counted as an AUX error.

An order of <u>relative difficulty</u> was established by totalling the percentages of correct productions for each morpheme across all students, averaging totals and rank



ordering the results. This ranking is compared with the 'natural order' in Table 1.

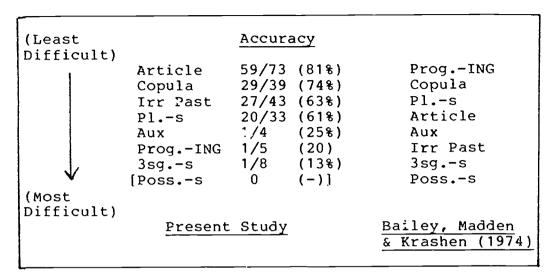


TABLE 1: RELATIVE DIFFICULTY OF MORPHEMES

Relative frequency of occasions for each morpheme was established by simply totalling and ranking them. This was done both within as well as across individuals, to ensure some standardization across texts. For example, a speech involving a particularly long narrative may inflate the overall number of past tense occasions across individuals, whereas the within-individual count would contain this effect within one speaker. As it happened, though, there was a 100% correlation between the rankings within and across individuals. This ranking is presented in Table 2 below.

#### II.3 Native Speaker Frequency

Given the thesis of this study that relative difficulty is affected by the kind of discourse that students have been exposed to, I needed a frequency count of native speaker discourse more meaningful than Brown's (1973), which was based on parent productions in dialogue with L1 learners. For this purpose, I recorded and transcribed a 15-minute sample of a network news program from the TV (see Appendix 2). The transcript covers eight different news stories, interspersed with eight commercials. The frequency count of morpheme productions is ranked in Table 2 alongside the subjects' frequency of occasions, and Brown's (1973) frequency of productions.



<u>Learner</u> Occasions	TV News Productions	Parent Productions (Brown 1973)
(Most		
frequent)  Article (73)  Irr Past (43)  Copula (39)  Pls (13)  3 sgs (8)  ProgING (5)  -Aux (4)  Posss (0)	Article (161) Pls (109) Copula (59) 3 sgs (21) Irr Past (19) ProgING (11) Aux (11) Posss (9)	Copula Article ProgING -Aux Pls Irr Past Posss 3sgs
Posss (0) (Least frequent)	1033. 3 (7)	22g• 2

TABLE 2: RELATIVE FREQUENCIES OF MORPHEME OCCASIONS

# II.4 Correlation Tests

Finally, a series of tests using the Spearman Rank Order Correlation Coefficient were performed on the rankings in Tables 1 and 2. The resulting correlations are presented in Table 3.

1.Rel Difficulty (learners) vs. 'Natural Order': (Table 1)	.214; p > .05
2. Rel Difficulty (learners) vs. Frequency of Subject Occasions: (Tables 1 & 2)	.821; p < .025
3. Rel difficulty (learners) vs. Frequency of TV productions: (Tables 1 & 2)	.696; p > .05
4. Frequencies, Brown (1973) vs. TV Productions: (Table 2)	.405; p > .05
5. Frequencies, Learner Occasions vs. TV Productions: (Table 2)	.833; p < .025

TABLE 3: SPEARMAN RANK ORDER CORRELATION COEFFICIENTS



#### III. DISCUSSION

## III.1 Relative Difficulty

Table 3 shows no significant correlation (#1) between the morpheme difficulty for these learners and that predicted by the 'natural order.' This result is in line with my speculation that different discourse tasks produce different levels of difficulty for a certain morpheme. However, relative difficulty does correlate significantly (#2) with the frequency of learner occasions. The variability between the learner rankings and the 'natural order' is mostly due to the much higher position of the Irregular Past and the much lower position of AUX and -ING in the learner rankings. What this amounts to in discourse terms is an apparent preference by the learners for Simple over Progressive constructions, reflecting an avoidance of the more difficult strategy.

# III.2 Frequency of Occurrence

Brown's (1973) order of native speaker frequency does not hold for the discourse of the TV program (correlation #4, Table 3), reinforcing the thesis that different contexts affect the frequency levels of the morphemes involved. Much of the variability between the two native speech counts is explained by the lower positions of -ING and AUX in the TV count, and the higher position of 3sg.-s. Again, this reflects a greater incidence of Simple (non-Progressive) forms in the TV discourse relative to the parent-child conversations. Explanations for this pattern are beyond the scope of this study, but focus-related accounts may imply that Simple forms are being used in the TV discourse as a foregrounding device (Reichman-Adar, 1984).

Whatever the explanation for the TV pattern, its highly significant correlation with the frequency of learner occasions (#5) reveals that these learners seem to be mirroring the morphosyntactic patterns that they have been exposed to in TV extended discourse.

The correlation between relative difficulty and TV frequency (#3, Table 3) is not significant. Given the significant correlations above (#2, #4), this result requires a closer analysis. We have already seen that the learners choose those morphemes which are least difficult for them (#2). We have also seen that their choices correlate significantly in relative frequency with those of the TV discourse. We might therefore expect that the least difficult morphemes should also be the most frequent ones in the TV sample.



It turns out that this unexpected effect is largely due to the separation of Irregular Past forms from Regular, which I made following the 'natural order' studies. If we include Irregular and Regular forms within the same category and recalculate the rankings, a more meaningful picture emerges of the relationship between learners' discourse choices and their frequency of exposure (Table 4)

Learner	TV Pro-		
1%) Art 7:	3 Art 161		
4%) Past 5	5 Pls 109		
0%) Pls 3	3 Past 42		
5%) 3 sg. 3	8 3sgs 21		
0%) -ING	5 -ING 11		
3%) Aux	4 Aux 11		
-] Posss	O Poss 9		
	į		
	1		
Spearman Rank Order Correlation Coefficients			
Frequency, Subject Occasions vs.			
	804 p < .025		
(7 (6 (2 (2 (1	t Occasions: ductions: Occasions vs.		

TABLE 4: RE-RANKINGS, COMBINING REGULAR AND IRREGULAR PAST FORMS

We can see in Table 4 that the inclusion of Past Simple forms in a unitary Past tense category produces a highly significant correlation between relative difficulty and frequency of occurrence in the TV discourse. This correlation matches those already found between difficulty and frequency of student occasions, and between the frequencies of student occasions and TV productions.

These correlations strongly support the notion of frequency of exposure as a factor influencing the learners' choice of discourse strategy. The strategy in question here is the choice of Simple over Progressive forms, evidenced by the higher frequency of occasions for Past Simple and 3sg.-s morphemes than for -ING and AUX morphemes in both learner choices and native speaker choices. This pattern is reversed



in the 'natural order' of difficulty and in Brown's (1973) frequency count, both based on dialogue contexts, where -ING and AUX are ranked higher than Past and 3sg.-s forms.

## III.3. Conspicuousness

However, frequency of exposure does not fully explain the order of relative difficulty in these data. First, we need to know why the re-ranking in Table 4 makes such a difference. The answer is that the addition of Regular forms increases the overall frequency level of Past morphemes in the TV data, to approximate that of the learners. This increase reflects a wide repertoire of fairly unusual verbs ('aimed,' 'greeted,' 'stated,' 'claimed,' swerved,' 'rolled,' etc.) In contrast, the L2 learners use very few Regular past verbs (only 12 Regular vs. 43 Irregular). They rely almost exclusively on a core of 'strong' or Irregular verbs ('went,' 'became,' 'took,' 'said' 'heard' etc.)

Why should the learners prefer strong to weak verbs, when the TV model shows no such preference (23 Regular, 19 Irregular) in these data)? One very likely reason is the great frequency of these strong verbs in everyday interactions. They certainly have a useful 'all-purpose' quality: all six weak verbs exemplified above could be represented (with less precision) by two strong verbs: 'went' and 'said.' But another likely reason is the conspicuousness or uniqueness of strong past forms. This is suggested by the fact that out of 43 occasions for strong Past forms, there is only one instance of a misformed morpheme; and the amount of self-correction surrounding it suggests that even this one was at the tip of the student's tongue:

(1) last day I read [ri:d] um - eh yesterday, I read
[ri:d] - I wrote - eh I read [red] - I read [ri:d]
(laugh) .. eh a story in newspaper

There are no errors of the 'breaked' type attributed to L1 children. In fact, apart from (3) above, the only errors produced for strong Past morphemes involved the substitution of Present Simple for Past forms, as in the example below, which could usually be interpreted as a di course error (e.g. of tense copying) rather than as a for al error:

(2) She was my teacher. She -eh -she saw eh ab-she heard about the news. And then she .. investigation (laugh). Then she - she go to the responsible

## III.4. Usefulness

Another question not answered by frequency counts is why the 3rd sq.-s morpheme should be so 'difficult,' considering



the learners' preference for Simple verb constructions. It has the lowest accuracy ranking of all morphemes produced (Poss.-s, with zero productions, is discounted), even though it has an intermediate level of frequency in both learner and TV discourse occasions.

The most likely explanation, as I suggested in the Introduction, is the redundancy of this morpheme: the 3rd person subject is already represented in the preverbal NP, so there is no discourse motivation to get this morpheme right. The following example seems to illustrate my point. The learner's self-monitoring shows that she knows the <u>-s</u> morpheme is required in this context, but having repaired her error she goes ahead and repeats it anyway:

(3) always I ask myself why . some people kill - eh - each other ... because he be-become crazy, or maybe because he don't know eh - he don't know . eh, he doesn't know eh ... eh (laugh) he don't realize

# III.5. Form-Function Transparency

Finally, frequency alone cannot explain the relative difficulty of Progressive -ING: it turns out to be the most difficult of all morphemes produced, after 3 sg.-s, contrary to the 'natural order,' which predicts this morpheme as least difficult. A partial explanation may be suggested by the low frequency of Progressive constructions in the TV discourse; but, in purely formal terms, the -ING form is actually very frequent in this context. Counting all its functions, I found 15 Gerunds, 18 Participles and 11 Progressives - totalling 44 -ING forms. This formal count raises the frequency ranking of -ING to fourth position, which, if difficulty were simply a matter of exposure, should imply relative ease of acquisition.

However, multiplicity of function, while increasing the frequency, also reduces the transparency of this form. Adding to the opacity of the -ING progressive function is its interaction with lexical aspect, so that certain verbs, such as 'have' or 'feel' rarely take this suffix, despite their durative aspect.

In these data, the learners apparently fail to produce the -ING form, not because they are unfamiliar with it, but because they are not how it works. The nature of their errors suggests that when they do attempt a Progressive construction, they hedge their bets: they use <a href="either AUX or the -ING suffix">either AUX or the -ING suffix</a>, but never both. The following example illustrates both alternatives.



(4) I have been here for almost five month. And eh . and I'm always feel that I'm alone, and eh - nobody talk to me, eh - just I shouting, or sometime playing with my kid

Considering the opacity of -ING, such attempts may reflect very rational choices. After all, the 'omission' of AUX from gerundial and participial constructions may suggest to a learner that it can be omitted, as a sort of double marker, from the verbs 'shout' and 'play.' With 'feel,' however, she may have preferred the AUX marker, remembering that for some reason native speakers rarely attach the -ING suffix to express durative aspect for this verb.

#### 1V. CONCLUSION

The correlations set out above, and the patterns of preference and avoidance shown by the learners, suggest that formal difficulty is determined by a balance of features that constitute pragmatic salience. These features are entailed to a greater or lesser extent by different discourse activities, thus affecting the relative difficulty of a form as it is used in these contexts. This means, for example, that a learner who (true to the 'natural order') performs well with Progressive -ING in a dialogue may simply be showing her proficiency with one specific form-function correspondence. Once she has been exposed to a multiplicity of functions for this form, however, she may feel less confident about using it, particularly in an extended turn where she is solely responsible for constructing and monitoring her own meaning.

This case study is enlightening because it offers a particularly clear frame for illustrating several features of pragmatic salience, and the dependence of learners on the kind of discourse that they have been exposed to. Undoubtedly, other discourse tasks will produce different orders of difficulty for certain morphemes, depending on the discourse experience of the speakers involved.

Communicative competence involves flexibility: the confidence to use a variety of forms in a variety of situations. These situations include extended discourse as well as turn-taking. For this reason, teachers and other native speakers involved with language learners need to be aware that the 'natural order,' or any theoretically-based sequence of acquisition, is only predictive to a limited extent. The relative difficulty of morphemes for certain learners will not become clear until those learners have a chance to speak freely in a variety of contexts that will display their preferences and avoidances.

Teachers will then be in a position to interpret the r students' difficulties in terms of the features of pragmatic



so minimal in usefulness that they deserve little corrective feedback. More useful forms, difficult because of their infrequency or functional opacity, can be focused by extra exposure and role play practice in contexts which maximize the pragmatic salience of that form.

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