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Dependent

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ANALOGICAL LEVELING AND CHILD MORPHOLOGY:
 THE CASE OF THE IRISH DEPENDENT
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In the past few years there has been a renewed interest in the influence of child language on language change. This trend is found in phonology (viz. Stampe (1973), Dressler (1974) and Drachman (1976)), and in syntax and morphology (viz. Baron (1977), Slobin (1977) and Bybee Hooper (1979)). The procedure common to many of these investigators has been to observe the order and manner of acquisition of some set of elements by children and infer from these general principles of historical development. Certain cross-linguistic developmental trends taken from Slobin (1973) are particularly suggestive of a connection between analogical leveling and acquisition processes: (1) Children prefer grammatical markers which are systematically related to meaning; (2) when multiple forms performing the same semantic function alternate on the basis of arbitrary formal criteria, children tend to select a single form for use in all environments; and (3) formal alternations are acquired late and tend to be eliminated in favor of more transparent sound-meaning relations. These tendencies correlate well with general principles of morphophonemic change and seem to continue to govern the morphological system in adulthood (Bybee Hooper 1979). In fact Bybee Hooper suggests that "the child's innovations will succeed in producing a change only if the speech community (including the adults) can view the innovation as compatible with the system as internalized in their own grammars." (p.42) Given the similarity of the analogical tendencies in adults and children, the child can not be implicated as the initiator of morphophonemic change solely on the basis of the correlation of acquisition processes with principles of analogical change. In this paper we will present evidence that analogical leveling in the adult system is initiated by the child in the early stages of language acquisition. Our evidence will consist of data from recent changes in the Irish verbal paradigm.

A few verbs in Irish distinguish 'absolute' from 'dependent' stems. Dependent stems occur after a series of particles, referred to as 'conjunct particles'. A list follows:¹

- | | |
|---------|------------------------|
| (1) ní | negative |
| an | interrogative |
| nach/ná | negative interrogative |

- c. cé a chonaic Seoirse?
 who rel-part see-past George
 'Who saw George?'
 'Who did George see?'
- d. chonaic Seán Seoirse agus chonaic Maire Seile
 see-past John George and see-past Mary Sheila
 'John saw George and Mary saw Sheila'

- (4) a. ní fhaca Seán Seoirse dependent
 neg saw John George
 'John didn't see George'
- b. an bhfaca Seán Seoirse?
 Q saw John George
 'Did John see George?'
- c. an fear a bhfaca a mhac Seán, tháinig sé
 the man rel-part saw his son John, came he
 'The man whose son saw John came'
- d. tá a fhios agam go bhfaca Seán Seoirse
 is its knowledge to-me that saw John George
 'I know that John saw George'

The origins of the absolute/dependent distinction lay in the pre-Old Irish period. Pre-verbal particles, including relational words, which in other sentential positions developed into prepositions, various object pronouns, negative and interrogative particles, and conjunctions, attached themselves as prefixes to the verb. For example, the verb berid in (5):

- (5) berid
 'bears'

can take on various prefixes, as we note in (6):

- (6) a. do-bear
 to-bear
 'brings/gives'
- b. ní-ta-bair
 neg-to-bear
 'does not bring/give'
- c. as-beir
 out of-bear
 'says'
- d. ní-beir
 neg-bear
 'doesn't bear'
- e. fu-a-ta-barr
 under-which-to-bear-pass
 'under which is brought'
- f. ma-ni-ta-bair

- if-neg-to-bear
 'if ___ does not bring'
 g. ní-tha-bair
 neg it-to-bear
 'does not give it'

The morphological effect of the prefixes is two-fold: First, when prefixes are added to the verb, a special inflection is used, the so-called 'conjunct' flexion. Second, and most important for our purposes, the stress may shift.

The rules for stressing verbs in Old Irish have a number of peculiarities, but in essence are as follows: The first syllable of the verb is stressed if there is no prefix or if there is only one prefix. If there is more than one prefix, the second prefix receives stress. So, again looking at the verb berid when the prefix is added as in (6a), the inflection changes--note the final -id of (5) is lacking in (6a)--but the stress remains on the first syllable. When two prefixes are added, as in (6b), the stress shifts onto the second prefix. The position of the stress is summarized in (7); the underlined vowel receives stress:

- (7) a. berid (=5)
 b. do-beir (=6a)
 c. ní-ta-bair (=6b)

When stress shifts off the verb, a number of phonological changes occur, the cumulative effect of which may be quite large. With the exception of the copular verbs, all the absolute/dependent pairs listed in (2) derived from the same historical root and were differentiated by means of these stress shifts and accompanying phonological adjustments.

The forms given in (2) are survivors of a much larger set. In fact, even the most conservative dialect in Modern Irish does not preserve all the absolute/dependent distinctions noted in (2). While the loss of such a distinction is not surprising--it is a morphologically idiosyncratic distinction with a low, or better yet, negligible functional yield--the direction of the change is somewhat surprising. For the surviving absolute/dependent pairs presented in (2) only one verb has generalized the absolute; the rest have generalized the dependent stem.

Consider, for example, the verb meaning 'to see'. The Classical Modern Irish distribution of these forms is given in (8). Only third singular forms are listed:

| | | | |
|-----|--|-----------------|------------------|
| (8) | | <u>absolute</u> | <u>dependent</u> |
| | present | do-chí | feiceann |
| | past imperfective/ past subjunctive | do-chíodh | feiceadh |
| | future | do-chífidh | feicfidh |
| | conditional | do-chífeadh | feicfeadh |
| | past perfective | do-chonnaic | faca |
| | present subjunctive | -- | feicidh |
| | imperative | -- | feiceadh |

The (moribund) present subjunctive and the imperative did not distinguish absolute and dependent form; in Old Irish the imperative had a special stress pattern that resulted in a form like the dependent. Furthermore the verbal noun and participle resembled the dependent:

| | | |
|-----|-------------|---------|
| (9) | verbal noun | feicsin |
| | participle | feicthe |

Many of the modern dialects preserve the distinction only in one tense (usually the past perfective). When leveling occurs, with one exception, it is always in favor of the dependent:

| | | | |
|------|--|-----------------|------------------------|
| (10) | West Muskerry (Munster) | | (O'Cuív 1944) |
| | | <u>absolute</u> | <u>dependent</u> |
| | present | chíonn | feiceann |
| | past imperf. | chíodh | feicfeadh |
| | future | chífidh | feicfidh |
| | conditional | chífeadh | feicfeadh |
| | past perf. | chonaic | faca |
| (11) | Teilinn (Donegal) | | (Wagner 1959) |
| | present | tchíonn | feiceann |
| | past imperf. | tchíodh | feicfeadh |
| | future | tchífidh | feicfidh |
| | conditional | tchífeadh | feicfeadh |
| | past perf. | chonnaic | faca/feaca |
| (12) | Cois Fhairrge (Connemarra) (de Bhaldraithe 1953) | | |
| | present | feiceann | feiceann |
| | past imperf. | feiceadh | feiceadh |
| | future | feicfidh | feicfidh |
| | conditional | feicfeadh | feicfeadh |
| | past perf. | chonaic | faca |
| (13) | Erris (Connaught) | | (Mac an Fhailigh 1968) |
| | present | feiceann | feiceann |
| | past imperf. | feiceadh | feiceadh |

| | | |
|-------------|-----------|-----------|
| future | feicfidh | feicfidh |
| conditional | feicfeadh | feicfeadh |
| past perf. | chonaic | faca |

The Connaught and Connemarra dialects represented above preserve the distinction only in the past perfective. In other forms only the dependent survives.

The reason this development might seem surprising is that the absolute form occurs in environments that are usually considered 'unmarked' relative to the environments where the dependent is found. That main, declarative, affirmative sentences and the syntax and morphology that characterize them should be considered as the unmarked type seems to follow regardless of which of the applicable approaches to markedness one accepts. In perhaps the simplest of these approaches, the morpheme-counting approach, dependent contexts typically have an additional morpheme (e.g. the negative or interrogative) and are therefore 'marked' in the literal sense. In the frequency approach to markedness absolute contexts are more frequent both absolutely (73% to 27%) and specifically for verbs showing absolute/dependent contrasts (e.g. for táim 'I am' 68% to 32%) and are therefore unmarked.³ In the discourse presupposition approach suggested recently by Givón (1979) main, declarative, affirmative sentences have a smaller degree of presupposed background than other sentence types and are therefore unmarked relative to dependent contexts.

It has frequently been assumed that unmarked structures serve as models in cases of paradigmatic leveling. Given that this is generally correct, it is surprising that the marked dependent forms should serve as models for the leveling observed in the case of the Irish paradigm.

Owing to the suppletive nature of the absolute/dependent distinction in the synchronic system, the direction of the morphological leveling may not have been a factor of the sentence types in which the absolute/dependent forms occurred, but rather of lexical properties of the verbal forms themselves. Zager (1978) has formulated a theory based on the properties of individual words. He proposes that diachronic change is a function of the degree of autonomy of a particular form.⁴ Autonomy can be defined as the extent to which a word is likely to be represented in the speaker's lexicon as a whole and independent unit. Bybee and Brewer (1980) have proposed that the degree of autonomy of a given set of forms is the factor which determines the basic-derived relationship and therefore the direction of

leveling.⁵ Three factors contribute to the degree of autonomy of a particular lexical item: semantic simplicity, morphophonemic regularity and word frequency in discourse. The absolute dependent stem forms in Irish can not be differentiated on the basis of the first two criteria; neither stem bears more overt semantic marking and neither can be said to be more irregular. The only factor differentiating the verbal forms is frequency. As we have stated, the absolute forms are more frequent than the dependent. For adults, then, the absolute forms should be more autonomous and yet they are not generalized. If, however, we consider the frequency in the linguistic input to children, the results are more consistent with the direction of leveling.

A number of differences exist between the linguistic data base of the child and that of the adult. This is due in a large part to the difference in interaction styles found in speech among adults and speech between adults and children. One such difference is the frequency of occurrence of particular sentence types in general discourse. Newport et al. (1977), in a study of fifteen English-speaking caretaker-child dyads, found the following results:

| | <u>Mother-Child</u> | <u>Mother-Experiment</u> | |
|--------------|---------------------|--------------------------|---------------------------------------|
| Declaratives | 30% | 87% | difference |
| Questions | 44% | 9% | } 11% significant at $p < .001$ |
| Imperatives | 18% | 2% | |

The majority of utterances directed toward the child took the form of a question or an imperative. Speech directed toward adults most frequently took the form of a declarative. In the linguistic input the percentage of questions and imperatives decreases and the percentage of declaratives increases from childhood to adulthood. Similar trends have been found in a variety of languages, including Luo and Samoan (Blount 1977), Kokwet (Harkness 1977) and Hawaiian Creole (Scollon 1976).⁶ In Irish these imperative and question forms would be expressed with a dependent verbal form. In the Irish child's linguistic input the dependent form would be most frequent and therefore the most autonomous.

The absolute/dependent distinction exhibits exactly the properties which would lead us to expect the child to simplify the system: First, since there is no one-to-one correspondence between the surface forms and semantic elements, the alternation will be acquired later. Second, the alternation is based on arbitrary formal criteria; therefore, the child is likely to use one of the stem forms in all environments. The factors

which determine autonomy correspond to those which have been found to determine the form which the child acquires first: semantic and grammatical complexity (Bloom and Lahey 1978, Brown 1973, Slobin 1973) and frequency in input (Bowerman 1973, Van der Geest 1977). Therefore, the form the child selects as basic and generalizes to all environments will be the most autonomous; in this case it is the dependent. Owing to the formal complexity involved in the alternation, this analysis will be tolerated by the speech community and eventually incorporated into the adult system. The forms which maintain the distinction will be those for which the absolute forms occur with a higher frequency thus preventing the child from choosing the dependent as basic.

The unusual direction of leveling in the Irish paradigm has provided a framework for evaluating the role of the child in diachronic change. As a result of suppletion in the absolute and dependent forms, the main factor differentiating the stem forms is frequency. As we have seen, frequency favors the dependent form in the child's linguistic data base, but not in that of the adult. This variation in linguistic input makes it possible to distinguish child initiated changes from adult changes. The conditions for leveling the paradigm in favor of the dependent are met only in childhood. Thus, in the case of the Irish dependent we find evidence that the leveling attested in the adult system is a product of the analysis of the child.

Notes:

¹ Apart from conditioning dependent stems, the particles in (1) have another feature in common, namely that they have past counterparts that include -r, which derives from the Old and Middle Irish perfect particle ro. Compare (a) and (b):

- (a) ní chreideann sé Séan
neg believe-pres he John
'He doesn't believe John'
- (b) níor chreid sé Séan
neg believe-past he John
'He didn't believe John'

Verbs that distinguish absolute from dependent stems, however, use the present form of conjunct particles even when in the past:

- (c) ní fheiceann sé Séan
neg see-pres he John
'He doesn't see John'

- (d) ní fhaca sé Séan
 neg see-past he John
 'He didn't see John'

²Not surprisingly, the distinction is uniformly preserved in the two copular verbs. For some other verbs, the distinction may only be preserved in the past tense.

³Text counts are from the novel Séadna by Peter O'Leary which includes both straight narrative and extensive dialogues.

⁴We choose to discuss the properties of the forms themselves in terms of autonomy rather than markedness because it is more clearly defined and offers the advantage of considering the properties of individual lexical items independent of the paradigm of which they are a part.

⁵Hudson (1974) and Vennemann (1972) have shown that the more basic form is the model for leveling.

⁶In English this interactional tendency results in the child's hearing an uninflected verbal form most frequently, allowing it to be taken as the basic form.

⁷We hope to verify this hypothesis with data from the acquisition of Irish which are currently being collected.

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