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Changes in the explicitness of mothers' directives as children age*

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ABSTRACT

This study investigates the surface forms which mothers use to direct their children's behaviour. It is generally supposed that social factors control a speaker's choice of directive form. However, it is shown that mothers' use of the various forms may be related to a cognitive variable, viz. the degree to which the forms possess the surface properties and, hence, clarity of canonical imperatives. As children get older, mothers' directives lose, in a meaningful order, properties which help to specify their mood and content. It is suggested that the social properties of the context do eventually replace the cognitive demands of the various forms as the primary influence on mother's choices.

INTRODUCTION

Speakers have many syntactic options when choosing how to express a thought. Much of this freedom stems from the fact that the relationship between grammatical form and illocutionary force is not fixed. A given illocutionary act can be performed with a variety of syntactic structures; likewise, the same syntactic structure can serve a variety of illocutionary functions. For instance, if a person wants another person to stop smoking, he is not limited to using overt imperatives such as *Put out that cigarette*, but can choose, as well, from among a variety of

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non-imperative or 'indirect' forms such as *Could you please put out that cigarette, I wish you wouldn't smoke* or *Please, cigarette smoke makes me ill*.

Ervin-Tripp (1976) argues that the syntactic form a speaker selects in order to perform a given illocutionary act is determined largely by the social properties of the context, e.g. his perceived rank relative to his addressee, their familiarity with one another, whether the proposed act is one which the addressee is normally expected to carry out, and so on. These features generally specify an expected form for any given situation. By choosing to use an unexpected form, the speaker can indicate that he questions the validity of the assumptions on which the expected form is based. Thus, a speaker's manipulation of the form, as well as the content, of a message is communicative.

Ervin-Tripp & Miller (1977) propose that the illocutionary force of most types of indirect directives is as clear as the force of conventional imperatives. This is quite likely true for adults well-practised in social discourse. However, the ability to produce and respond appropriately to indirect speech acts rests on a culturally conditioned sensitivity to the ways in which the choice of form modifies (and may even contradict) the information literally encoded. The conventions one uses in designing or interpreting indirect speech acts are not obvious. Information about how and when to use them cannot be found simply in the surface structure of utterances but must be gleaned from the relationship between the locutionary acts performed with the utterances and various aspects of their contexts of delivery. Adults learning second languages generally master the strictly grammatical conventions well before they learn how to produce or interpret indirect speech acts. It is in the mastery of these latter skills that most ultimately fall short of native speakers' communicative competence.

First language-learning children face the same problems as second language-learning adults and more. At least the adults' experience would lead them to expect that syntactic form and illocutionary force are not isomorphically related. From the beginning, then, they could pay particular attention to the way in which one may move from form to force in the new language. Children on the other hand, have none of this experience and must learn that the relationship between form and force lacks rigidity before they can begin to master the art of mapping between them.

In order to explore the possible consequences of this uncertain relationship, we will examine what mothers say when they attempt to direct the behaviour of their children. At some point in language acquisition, a child must learn to distinguish utterances which are intended as directives from utterances intended as declaratives or interrogatives. This would not present much of a problem if directive force were consistently marked by a grammatical morpheme such as a verb affix whose form remained invariant over changes in verb tense, number, and so on. Unfortunately for children, there is no such marker. It follows, then, that the alternative syntactic forms which may be used directly convey this force

differently and, most likely, in ways which are not equally salient. Some forms should be less obviously directive than others and, indeed, this seems intuitively clear.

It also follows that these differences might affect the difficulty which a listener has in recognizing that the alternative forms share a common force. In all likelihood, these differences are, in most cases, inconsequential for adult native speakers, as Ervin-Tripp & Miller propose. However, they may make the directive force of some of the forms opaque to an inexperienced listener. If so, they may also influence some of the encoding decisions made by a speaker addressing such a person. If mothers change the kinds of directives they use as their children get older, it may be that these changes are due, at least in part, to the relative difficulty which they feel the children to have in recognizing that the forms are equivalent in force.

In order to demonstrate the plausibility of this claim, it is necessary, first, to establish that the various forms which mothers use differ in how obviously directive they are and, second, to show empirically that differences in the frequencies with which mothers use the forms can be predicted from these differences.

METHOD

Surface forms of mothers' directives and a proposal regarding their interrelatedness

The following are the forms in which mothers encode directive messages for their 1 to 5-year-old children (Bellinger 1977).

(1) CONVENTIONAL IMPERATIVE. This type consists of directives which possess imperative syntax (e.g. *Put the rest of those blocks away*) and includes, as well, those in which the mother explicitly proposes that the child be the agent (e.g. *You put the rest of those blocks away*).

Types 2-5 are 'indirect' directives.

(2) INTERMEDIATE INTERROGATIVE. This type combines the syntactic simplicity of the conventional imperative with the rising intonation of polar interrogatives (e.g. *Put the rest of those blocks away?*).

(3) FULL INTERROGATIVE. This type of directive is fully interrogative in surface form. Its content is embedded in a question which, literally interpreted, might request, for instance, substantive information about the task at hand (e.g. *Where should you put the rest of those blocks?*) or the child's assessment of either his ability to perform the task (e.g. *Can you put the rest of those blocks away?*) or his grasp of the requisite knowledge (e.g. *Do you know how to put those blocks away?*). Note that all directives of this type make explicit reference to the act which the mother wishes the child to perform, though the mood of the utterance is interrogative rather than directive. What the child must understand is that the mother wants him to perform the act, not provide the information apparently requested.

(4) **DECLARATIVE.** This type of directive also names the act the mother would like to see carried out. However, it does not explicitly request or demand that it be the child who do so. Mothers avoid this by passivising the conventional imperative and dropping the agent *by* phrase. Instead of saying *You must put the rest of those blocks away*, they say *The rest of those blocks must be put away*. Because the range of its possible pragmatic implications is greater than that of the conventional imperative, the declarative is not merely a stylistic variant. The form of the conventional imperative identifies the child as the proposed agent of the act. Therefore, it inevitably serves a directive function. Because the declarative lacks this *by* phrase, it can be used for non-directive purposes. For instance, the mother could produce this truncated passive form while picking up the blocks herself, intending to comment on her own activities rather than direct her child's. When this form is used directly, its force arises out of the interaction between the expressed content, contemporaneous nonlinguistic events, and the social features discussed by Ervin-Tripp.

(5) **IMPLIED.** In this type of directive, the surface form encodes an argument why a particular act should or should not be performed, but fails to state explicitly what the act is. Moreover, like the declarative directive, it does not have any of the syntactic or intonational properties which might inform the child that he has been nominated to be the agent of the act. For example, to a child who is trying to pull a firmly riveted bell from a toy, the mother might simply say *It's attached*, leaving the child to deduce both the content and force of the implied information. In effect, the mother's observation is the minor premise of an enthymemic inference from which both the major premise and the conclusion have been deleted. The major premise is something to the effect of 'things which are attached cannot easily be removed'. From the overt minor premise and this covert major premise, the child must infer the conclusion 'therefore, the bell cannot easily be removed from that toy'. This is equivalent to a declarative directive. The difference between an implied and declarative directive is the fact that the content of the directive must be deduced in the former. Because of this, the force of implied directives is derived differently as well. It is not the simple relationship between expressed content and its context of delivery that specifies the force, but rather the relationship between the deduced content and the context in which the expressed content is delivered.

Because of the formal structure of inference, the mother could have implied the same directive conclusion by verbalizing the major premise rather than the minor. In fact, however, mothers show a marked preference for using the minor premises as implied directives, i.e. those premises which specify the class membership of a particular element in the context. They generally leave to the children the task of supplying the major term within whose domain the element falls as a consequence of that class membership. For instance, in response to the question

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Where does this piece go?, asked by a child working on a puzzle, a mother would be more likely to say *It has straight edges* than *Pieces with straight edges go around the edge of the puzzle* (Bellinger 1977).

These, then, are the five classes of directives which mothers use in addressing their language-learning children. One gets the sense that they are ordered in terms of the difficulty an immature listener would have in understanding them. Table 1 presents one possible basis for this intuition. The four types of indirect

TABLE 1. *Cumulative relationships among directive classes*^a

	Imperative syntax	Response-demanding	Explicit statement of act
(2) Intermediate interrogative	X	X	X
(3) Full interrogative		X	X
(4) Declarative			X
(5) Implied			

^a An X indicates that the surface forms of the directive class possess that property.

directives (i.e. classes 2-5) possess different combinations of the following three properties of conventional imperatives: (a) imperative syntax, (b) a response-demanding quality (even if not explicitly imperative), and (c) an explicit statement of the act desired of the child. Moreover, the classes are cumulatively related in terms of the particular combinations of properties they possess: intermediate interrogatives retain all three properties, full interrogatives only (b) and (c) above, declaratives only (c) above, and implied directives none at all.

Note that this cumulative ordering does not characterize the directive forms exchanged among adults, since some commonly used forms such as *Got a match?* fail to identify the desired act but are, nevertheless, response-demanding. In fact, this is true of most of the forms which Ervin-Tripp (1976) calls 'question-directives'. The mothers in the present sample did issue such directives as *Where does this piece go?* which, under strict application of the criteria, would not fit into the cumulative schema since they are response-demanding but do not name the desired act. However, these were considered 'full interrogatives' in the analyses reported because they generally occurred in stereotyped sequences in which the desired act was specified quite clearly, albeit non-linguistically. For example, a mother might hand her child puzzle piece after puzzle piece, each time asking *Where does this piece go?* The recent history of the interaction would thus specify both the desired act and the child as proposed agent in a way that the interactional contexts of implied directives such as *It's cold in here* and *You make a better door than window* generally do not. To interpret these, a child must rely more heavily on his own powers of conversational inference. For the same reason,

utterances such as *No* and *Stop* were considered conventional imperatives despite the fact that neither the act nor the proposed agent is explicitly identified linguistically.

It should be clear that these three properties do not mark directive force in the same way that the morphemes *ing* and *ed* mark verb tense. It is not the fact that an utterance is, for example, response-demanding that makes it directive, since the indirect forms acquire their force more from context of use than discrete surface markers. The cumulative ordering outlined above reflects, instead, the degree to which the various indirect forms simply resemble conventional imperatives in terms of certain surface properties. The following assumptions underlie the use of this cumulative ordering to investigate changes in the way mothers express their directive intentions: (1) the conventional imperative is the most 'basic' form of directive, so that learning to recognize it is one of the earliest acquisitions in pragmatic development, and (2) the likelihood that a young child will interpret an utterance as having the same force as a conventional imperative depends on the degree to which its surface structure contains the same modal and propositional information as conventional imperatives. As far as I know, there is no direct evidence to confirm or disconfirm either assumption (although Shatz' 1978 study suggests that young children respond similarly to sentences which have some propositional information in common).

Considering the classes in terms of these properties creates internal structure in the simple list presented earlier. We need not be content simply with the isolated frequencies with which mothers use the individual classes. By summing the appropriate class frequencies, we can assess the frequency with which mother's directives are, for example, response-demanding or the frequency with which they state the desired act. Patterns which are obscured when the class frequencies are examined separately may become clear when we view the data in this way.

This study addresses the following questions:

- (1) Does the explicitness of mothers' directives change as children get older?
- (2) If so, is the pattern of variation in the class frequencies across children's age related to the cumulative pragmatic relationships among the classes?

If the answer to (2) is affirmative, we may surmise that the 'directness' of the various forms influences the manner in which mothers express their directive intentions. The cumulative pragmatic relationships would lead us to predict the following pattern of change in the surface properties of mothers' directives. The first indirect directives mothers use will closely resemble conventional imperatives. One by one, the properties responsible for this resemblance will disappear. The first property to go will be imperative syntax, the second will be response-demandingness, and the last will be explicit reference to the act which the child is to carry out.

Subjects

A cross-sectional sample of 40 mother-child pairs participated in this study. The sample was divided into four groups of 10 pairs each on the basis of the child's age: 1;0 ($\bar{X}=12.30$, $\sigma=0.63$), 1;8 ($\bar{X}=20.00$, $\sigma=0.79$), 2;3 ($\bar{X}=27.00$; $\sigma=2.32$), and 5;0 ($\bar{X}=60.10$, $\sigma=3.46$). The female:male ratio in the four age groups was 7:3, 6:4, 8:2 and 4:6 respectively. All pairs were white and members of either the Cornell University academic community or the local professional community.

Procedure

Each mother-child pair was observed under semi-structured conditions in a laboratory 'playroom' setting. The mother was asked to involve her child in several specified tasks. In order to increase the frequency of mothers' directives, these tasks were ones known from pre-test or normative data to be too difficult for the average child of that age to complete without aid. The mother was told that an observer behind a one-way mirror would be tape-recording her interaction with the child. She was not told until the end of the session that mothers' verbal behaviour was the focus of the study.

The observation session lasted 30-60 minutes depending on the child's endurance. Two-channel audiotapes were made of each session. The output of the four wall microphones in the playroom were mixed and fed into one channel of the tape recorder while the observer's running description of the interaction was fed into the second channel. A narration which focuses on the non-linguistic aspects of the interaction and context is often helpful when one later tries to determine a speaker's intent in producing a particular utterance. At the time the interaction was recorded, the output of a tape which marked the passage of each 15-second interval was fed into both channels. This facilitated the task of matching up the verbal interaction with the corresponding narrative stretch.

The data to be reported are part of a larger analysis which examined many aspects of maternal speech (Bellinger 1977). Because of the wide scope of the complete set of analyses, only 100 utterances per mother were analysed. These were sampled in a standardised fashion: they were the first 100 codable utterances which occurred following the three minute mark of the session. The illocutionary force of each utterance was determined. Those judged to be directives were then assigned to one of the five form classes.

Reliability

A recoding of the 100 utterance samples for 30% of the mothers (three mothers randomly chosen from among the 10 in each of the four age groups) yielded the following estimates of the reliability with which the presence and form of mothers'

directives can be coded. Of the utterances judged to be directive in either the original or the recoding, 85.3% were considered directive on both occasions. This percentage was 93.1, 85.7, 84.2, and 78.0 for the speech addressed to the children at 1;0, 1;8, 2;3 and 5;0 respectively. The decrease in reliability over age is due to a concurrent increase in the relative frequency of declarative and implied directives. As Ervin-Tripp (1976) notes, there is often much ambiguity as to whether such utterances are intended directly or not. The addressees themselves sometimes interpret as directives utterances which were meant to be taken as declaratives or interrogatives and vice versa. That uncertainty is experienced even more strongly by a coder who lacks familiarity with the participants in the interactions and the history of the relationship between them.

Of those utterances considered directives upon both coding and recoding, 98.7% were assigned to the same form class (i.e. conventional imperative, intermediate interrogative, etc.). By age group, this percentage was 99.5, 99.3, 98.7 and 97.4. Clearly, the major source of error lies, quite predictably, in deciding whether a mother intended a particular utterance as a directive. Assigning a putative directive to a form class was mechanical.

RESULTS

Frequency of directives

In the sample as a whole, approximately one-third of the mothers' utterances were judged to be directive. However, this percentage varied with the children's age, decreasing significantly over the range examined: 48.4, 38.6, 23.6 and 23.7 ($F = 13.78$, d.f. = 3, 36, $P < 0.001$). Post-hoc comparisons (Tukey-HSD, $\alpha = 0.05$) show that the number of directives addressed to the children at 1;0 and 1;8 did not differ significantly, while both differed significantly from the mean numbers addressed to the children at 2;3 and 5;0. These latter means were not significantly different. Hence, mothers' production of directives tended to decrease significantly when their children were about two years old.

Distribution of directive totals among the form classes

As well as issuing fewer directives as the children got older, the mothers also changed the way in which they phrased them. Table 2 indicates the frequency with which their directives assumed the various forms. Because the five data points for each age group are not independent, the legitimacy of statistical tests on the percentages in each column is problematical. However, for lack of a suitable alternative, the results of one-way analyses of variance performed on these column percentages are presented as the best estimate of the reliability of the group differences. The results of post-hoc comparisons are presented in the table. For 'conventional imperatives', $F(3, 36) = 5.02$, $P < 0.005$; for 'intermediate interrogatives', $F(3, 36) = 3.15$, $P < 0.036$; for 'full interrogatives', $F(3, 36) = 7.59$,

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$P < 0.001$; for 'declaratives', $F(3, 36) = 7.90$, $P < 0.001$; and for 'implied' directives, $F(3, 36) = 10.37$, $P < 0.001$.

The age trends in the frequencies suggest the following pattern. The frequencies of both conventional imperatives and intermediate interrogatives generally decreased as the children got older. The frequencies of both declarative and implied directives increased over the same period. Finally, the frequency of full interrogatives changed non-monotonically, first increasing, then decreasing. As the age of the children they were addressing increased, mothers relied more and more on forms which are less obviously directive.

TABLE 2. *Percentage of directives in the form classes^a*

Age	Conventional imperative	Inter-mediate interrogative	Full interrogative	Declarative	Implied
1;0	67.4*	7.0*	19.6†	5.6*	0.4*
1;8	42.8†	4.4*,†	45.1*	5.4*	2.3*
2;3	49.6*,†	1.3†	25.8†	19.5†	3.8*
5;0	46.8†	1.7*,†	14.3†	26.2†	11.0†

^a Those percentages in each column which have the same superscript did not differ significantly from one another in the post-hoc comparisons (Tukey-HSD, $\alpha = 0.05$).

Let us now see whether anything is gained by expressing this pattern of change in terms of changes in the frequency with which mothers' directives possessed imperative syntax, were response-demanding, and explicitly stated the desired act. Fig. 1 presents four cumulative histograms, one for each age group. As indicated, the first four columns of each histogram refer, in order, to the percentage of directives which were conventional imperatives (i.e. class 1), the percentage which had at least imperative syntax (i.e. the sum of the frequencies of class 1 and class 2), the percentage which were at least response-demanding (i.e. the sum of the separate frequencies of classes 1-3), and the percentage which at least identified the desired act (i.e. the sum of the separate frequencies of classes 1-4). The fifth column brings the cumulative percentage to 100 by adding the percentage accounted for by implied directives, i.e. those which lacked all three properties. To indicate the relative size of this percentage across age, the amount by which column 5 exceeds column 4 is cross-hatched.

The most relevant feature of these histograms is the degree of negative skew. An early rise in the cumulative percentage means that most of the directives produced by that group of mothers were either conventional imperatives or those indirect types which retain most of the pragmatic properties considered. A later rise means that the mothers more frequently used those types of directives which lack most or all of these properties.

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Clearly, the older the children, the more slowly the cumulative percentage approaches 100. For example, by the time we include in the cumulative percentage those directives which are at least response-demanding, we have accounted for well over 90% of the directives addressed to the children at 1;0 and 1;8. Consequently, the cumulative percentage rises only slightly, 6.0 and 7.7 respectively, when we take into account those directives which, at most, name the desired act and those which possess none of the properties. As a result, the heights of columns

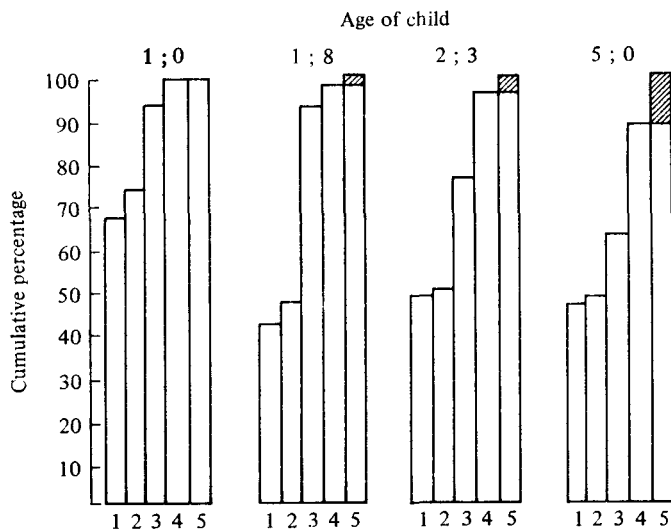


Fig. 1. Pragmatic marking of directives. Columns: (1) conventional imperative; (2) imperative verbal form; (3) response-demanding; (4) explicit statement of desired act.

3, 4, and 5 are very similar to one another in the histograms for both the 1;0 and 1;8 groups. In contrast, after including all the directives which are at least response-demanding, we still have not accounted for 23.3 and 37.2% of the directives produced by the mothers of the children at 2;3 and 5;0 respectively. Consequently, the heights of columns 3, 4, and 5 differ considerably in the histograms of both groups.

Let us put the data in a form which makes it easier to examine the hypothesis that the order in which mothers' directives begin to lack the three properties is: imperative syntax, response-demandingness, and explicit statement of the act to be carried out. Table 3 presents the percentage of indirect directives (i.e. classes 2-5) which possessed each property. One should keep in mind the fact that the three percentages presented for each group are, like those presented in Table 2, dependent on one another and, hence, pose the same difficulties for adequate statistical analysis. Nevertheless, one-way analyses of variance and post-hoc

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comparisons were performed on the percentages in each column. For 'imperative syntax', $F(3, 36)=7.32$, $P<0.001$; for 'response-demandingness', $F(3, 36)=14.26$, $P<0.001$; and for 'explicit statement of the desired act', $F(3, 36)=7.45$, $P<0.001$.

TABLE 3. *Percentage of indirect directives which possess the pragmatic properties**

Age	Imperative syntax	Response-demanding	Explicit statement of act
1;0	21.0*	82.3*	98.3*
1;8	8.7*†	84.4*	95.6*
2;3	1.9†	53.2†	91.8*
5;0	2.5†	32.9†	76.9†

* Those percentages in each column which have the same superscript did not differ significantly from one another in the post-hoc comparisons (Tukey-HSD, $\alpha = 0.05$).

These data are consistent with the hypothesis. In relative terms, the frequency with which mothers' directives retained at least imperative syntax decreased when the children were between 1;0 and 1;8 and remained relatively stable thereafter. The frequency with which they were at least response-demanding was stable between 1;0 and 1;8, decreased between 1;8 and 2;3 and continued to decline between 2;3 and 5;0. Finally, only after the children reached 2;3 did mothers' directives fail, with substantial frequency, to state the desired act. Hence, the order in which the properties began to disappear from mothers' directives was as predicted.

DISCUSSION

As children get older, mothers' directives resemble conventional imperatives less and less in terms of certain properties of surface structure. The frequency with which they possess each of the properties decreased over the age range. However, the decreases were staggered in time, with most of the decrease for any single property localized in one particular interval. The major decrease in the frequency of imperative syntax occurred when the children were between 1;0 and 1;8; for response-demandingness, it was between 1;8 and 2;3; and for explicit statement of the act, the decrease occurred when the children were between 2;3 and 5;0. Hence, mothers' first efforts at producing indirect directives tend to result in forms which lack only the pragmatically simple imperative syntactic form. These directives continue to be response-demanding and to name the desired act. The next change is the loss of explicit response-demanding markers altogether, leaving only a declarative which, nevertheless, describes the desired act. The

final stage noted is mothers' elimination of even this information, leaving the children the task of deducing both the mood and content of the directives.

We cannot draw the more interesting conclusion that mothers assume that children are able to determine the mood before they can infer the content of a directive. In order to say this, we would have to demonstrate that mothers do not produce directives which lack only a statement of the desired act until after they have been producing directives which lack only mood markers. However, the mothers in this sample did not produce directives of the former sort. All directives which did not name the desired act lacked explicit mood markers as well (except those, mentioned earlier, for which the desired act was clearly specified nonlinguistically). If the mothers had produced directives lacking only an explicit statement (or nonlinguistic specification) of the desired act, the relationship among directive classes would not have been cumulative, at least in terms of the properties of conventional imperatives considered here.

The hypothesis that the salience of directive marking is the primary influence on mothers' choice of surface form may well explain why mothers did not use the more indirect forms in addressing the youngest groups of children. However, it does not explain why the mothers of the older children did. The argument that they did so because the children could understand them is unsatisfying. If speakers' encoding decisions were governed by the principle that, if two or more alternative forms meet some criterion of intelligibility for the listener, one should choose the more indirect form, we would expect that implied directives would account for almost all of the directives exchanged among adults. This is clearly not the case. It seems more reasonable to assume that the fact that children can understand these more indirect forms gives mothers the option of using them if appropriate conditions prevail, but imposes no obligation on them to do so. By the time the children reach this level of receptive ability, the mothers' choice of directive surface form will be influenced primarily by the social factors which structure the interaction. Prior to that time, the cognitive factors outweigh the social in influencing this decision so that, in the interests of communicative effectiveness, mothers tend to use those forms which are most closely related to conventional imperatives, regardless of the social properties of the situation. This suggests that the cumulative pragmatic relationships among forms will influence speakers' encoding decisions only when the listeners are children still learning that the alternatives are equivalent in basic force. We should not expect that these cumulative relationships will help us to predict the distribution of directive forms addressed to listeners who have acquired this sensitivity.

So far no attention has been directed to the way in which language-learning children deal with directives of the different classes. Mothers appear to choose systematically from among the alternatives as a function of the children's age. But is this consideration necessary? That is, do children really have an easier time understanding some forms than others? Unfortunately, little is known about

how children develop the ability to determine the mood of indirect directives or to derive unexpressed conclusions. Skill in understanding certain types of indirect speech acts must not be long in developing, for Ackerman (1978) has shown that 6-year-olds are quite adept at specifying the intended meaning of what, in the present study, were called 'implied' directives. Furthermore, Garvey (1975) found that children as young as 3;6 to 4;7 can convey and refuse requests indirectly by referring to various preconditions for valid requests. However, pinpointing the age by which children understand form-force discrepancies is difficult since they appear to employ a variety of interpretive heuristics which save them performing the complex acts of reasoning attributed to listeners by language philosophers (e.g. Searle 1975, Gordon & Lakoff 1971). For example, Bates (1976) and Ervin-Tripp & Miller (1977) suggest that children treat certain commonly used forms (e.g. *Can you...*) as idioms. As a result, they can respond appropriately to them without having to infer their force on the basis of 'conversational postulates' or other types of arcane presuppositions. Shatz (1978) reports on a heuristic which permits very young children to behave as though they are perfectly capable interpreters of some indirect directives. In her study, children 1;7 to 2;10 responded with contextually appropriate actions to imperatives and a variety of declarative and interrogative forms which, under certain circumstances, can convey directive force. Surprisingly, the syntactic form of the stimulus sentence did not influence its ability to elicit relevant behaviour from the children. However, these data do not indicate that children master the complexities of the relationship between sentence mood and context of delivery before they reach two or three years of age. Shatz concludes that, at this age, children design responses to adult verbalizations using an action-based strategy which stipulates that one 'respond with action A or with an action on some object O, where A and O are members of the set whose elements consist of actions or objects identifiable from the speech stream' (1978: 275). This strategy makes an action response prepotent, regardless of either the syntactic form or illocutionary force of the adult utterance. The similarity of the child's response to direct and indirect directives has nothing to do with the fact that they share the same force. Rather, it results from the apparent tendency of young children to ignore those syntactic and intonational elements which differentiate these forms. Instead, they focus on the fact that the forms share a common proposition, or perhaps only a nominal or verbal group, which can be related to some aspect of the immediate nonlinguistic context. This tells us more about children's interactional strategies than their intuitions about form-force relationships.

The cumulative relationships among the directive classes included in this study provide one possible way to assess the relative importance, for the child, of the three properties of conventional imperatives as carriers of pragmatic information. That is, these relationships can form the basis for a set of initial hypotheses about the relative difficulty which children have in recognizing the

force of the various types of directives. For instance, one might hypothesize that the pragmatic relationships among classes are isomorphic with the relationships among classes in terms of performative difficulty or complexity. The pragmatic scale has interval properties in that movement from one class to the next involves the deletion of exactly one more property of conventional imperatives. In terms of pragmatic structure, thus defined, the classes are evenly spaced. But does deleting these properties from a directive, one by one, produce equal increments in the difficulty which children have in recognizing the directive force? In other words, is the increase in performative difficulty equal for all pairs of adjacent classes, or is the performative scale merely ordinal (if that)? It could well be that the three properties of conventional imperatives are not equally important in identifying an utterance as a possible directive. If so, the pragmatic relationships would not have strict performative counterparts and the interval scale no psychological reality.

The final section of this paper will identify several aspects of mothers' behaviour which may help children to master the vagaries of the relationship between surface syntax and illocutionary force. First, Watson & Donahue (1976) report changes over time in the degree to which mothers ensure that children have access to contextual information which clarifies the force and content of their directives. They found that mothers frequently present children of 1;0-1;2 with what were termed 'proto-directives'. These resemble true directives in form but not in function, since the mothers do not act as though they mean them 'sincerely', i.e. they do not wait for the children to comply, nor in all likelihood do they expect compliance. Instead, they physically guide the children through the requested act, suggest that the children perform acts which they are already doing, or suggest an act which they then carry out themselves. Watson & Donahue also noted that as a child gets older, a mother gradually increases her interpretive demands by, for example, requesting the child to perform an act which he is only ABOUT to do or to act on an object which is already the focus of the child's attention. Later still, a mother will request an act which the child is not obviously about to perform, but will cue the appropriate response by anticipatory gestures (e.g. while pointing to a ball, she may direct the child to *Go get the ball*). Later, even these helpful gestures are dropped.

Watson & Donahue do not report whether mothers encode 'proto-directives' in both direct and indirect surface forms. If they do, and this seems likely, the children would have an early opportunity to learn that the class of utterances to which a behavioural response is appropriate does not correspond exactly to the class of utterances which possess imperative syntax.

Second, when mothers do perform indirect speech acts, they apparently do not expose children to the full range of form-force variation. Shatz (1977) found that mothers addressing children between 1;6 and 2;10 show some tendency to use particular indirect forms to express particular functions. For example, over 60%

of the question-directives used by the mothers in her sample took one of the following forms: (1) *Can you [do X]?*, (2) *(Do) you wanna [do X]?*, or (3) *How about [X]?* Moreover, the mothers did not often use these forms, which Shatz calls 'paradigmatic question frames', in the service of other, non-directive functions. She also found that the more linguistically sophisticated children in her study responded more appropriately to directives encoded in paradigmatic rather than non-paradigmatic frames. Mothers' consistent use of certain indirect forms would help children to recognize that the surface mood of an utterance is not necessarily a reliable clue to its illocutionary force. At the same time, this very selective and controlled introduction to form-force discrepancy would prevent them from becoming hopelessly confused by the details of this relationship.

Third, when children fail to respond to an indirect directive, mothers often rephrase the command in a more direct form. The following sequences illustrate this:

(1) *Why don't you lay the board down?*

(child does not comply)

Lay the board down.

(2) *You're going to hurt someone.*

(child continues to wave scissors)

Put that down.

This shift may be motivated either by the mother's loss of patience or by her judgement that the indirect form may be too subtle for the child. Mothers sometimes reverse the sequence, as well, replacing an unheeded direct request with an indirect one. This shift appears to result from the mother's judgement that the child's noncompliance is due more to contrariness than to noncomprehension and that she might 'catch more flies with honey than vinegar'. In terms of cognitive strain, the rephrased form in the direct-indirect sequence is marked as a directive less clearly than the original. The force of the rephrased form in the indirect-direct sequence is marked more clearly than the force of the indirect form it follows. Hence, one would expect the indirect-direct shift to be more instructive than the direct-indirect shift to the child trying to sort out the relationship between form and force.

There is some tentative evidence that if a mother who is addressing the youngest children considered here alters the pragmatic structure of an unheeded directive, the change is equally likely to involve either a direct-indirect or an indirect-direct shift. In the speech to the older children, however, the shift is much more likely to be from direct to indirect (Bellinger 1977). Hence, on those relatively infrequent occasions when mothers addressing the youngest children phrase a directive indirectly, their subsequent verbal behaviour tends to clarify how they wanted the children to interpret the indirect form.

Finally, mothers may help their children learn how to understand and perform

indirect speech acts by responding to them as though they are already skilled in doing so. Young children commonly produce utterances such as *No spoon* and *Door open* which, regardless of how the children may intend them to be taken, correspond in their respective surface forms to the utterance which a diner who lacks the proper utensil might direct to a waiter (i.e. *I have no spoon*) and the utterance which a chilly gentleman might direct to his butler (i.e. *The door is open*). The adult speakers clearly intend these apparent descriptions to be interpreted as requests for action. The mother who responds in the same fashion as the waiter and butler should will teach her child that one can elicit action from others without issuing an overt imperative.

This study demonstrates a potentially useful approach to the investigation of certain pragmatic aspects of conversation. A considerable body of literature details the relationship between speakers' use of surface form alternatives and extralinguistic variables, particularly those related to the social status of the participants. This study focused, instead, on the question of whether the linguistic choices made by a particular group of speakers (viz. mothers addressing their children) could be understood in terms of the degree to which the alternative forms available specify the content and illocutionary force of the intended message. As it turned out, these choices did appear to be linked to the differences among forms. As suggested, however, these differences may be significant influences on a speaker's linguistic decision-making only under special circumstances such as when the listener is inexperienced in interpreting the occasional discrepancy between form and force.

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