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ABSTRACT

Piaget has suggested that a child's language reflects the degree to which he is able to take into account the point of view of his listener. His inability to do so results in what Piaget calls egocentric speech whereas what Piaget calls socialized speech indicates that the child actually adopts his listener's viewpoint and engages in an exchange of ideas. The present study was an initial effort to explore the potential of conversational rhythms as another criterion for distinguishing between egocentric and sociocentric orientations. Forty children were assembled into 20 same-sex pairs on the basis of age. The children in 10 of the pairs were between 5 and 6 years of age; the other 10, between 6 and 7 years old. Each pair engaged in a 20-minute conversation on each of two occasions. The 40 conversations were electronically analyzed in terms of pauses (silences within the utterances of a single speaker) and switching pauses (silences between the utterances of two speakers). The results indicated that the average duration of pauses and switching pauses were consistent within conversation and from conversation to conversation both for the younger and older pairs. (Author)

Conversational Congruence as a Criterion of Socialization  
in Children<sup>1</sup>

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Piaget (1955) has suggested that a child's language reflects the degree to which he is able to take into account the point of view of his listener. His inability to do so results in what Piaget calls ego-centric speech, whereas what Piaget calls socialized speech indicates that the child actually adopts his listener's viewpoint and engages in an exchange of ideas. Piaget viewed the two types of speech as representing a developmental progression in which socialized speech characterizes the later stage. His distinction is in terms of semantic content. Sunshine & Horowitz (1968), on the other hand, discussed language as ego-centric and socio-centric in terms of a balance between word repetition and diversity. Their distinction suggests that ego-centric speech is the more repetitious, with the implication that in ego-centric speech each of the often-used words covers many meanings and is, therefore, less communicative. Although Sunshine & Horowitz were not concerned with children's speech, an unpublished study by Feldstein & Jaffe<sup>2</sup> found that in children's speech

<sup>1</sup>Read at the annual meeting of the American Psychological Association, New Orleans, August 1974.

<sup>2</sup>S. Feldstein & J. Jaffe, The vocabulary diversity of parent-child interactions. Unpublished manuscript, 1967.

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vocabulary diversity is positively related to age, i.e., the number of different words children use in their interactions with others increases as they grow older.

The distinctions proposed by Piaget and by Sunshine and Horowitz essentially characterize differences in degree of socialization. Thus, their criteria reflect differences in the extent to which a speaker takes his listener into account or, if you will, the extent to which speech reflects interpersonal influence. The present study was an initial effort to explore the potential of conversational rhythm as another criterion for distinguishing between ego-centric and socio-centric orientations.

Much of the research that has to do with the nonlexical aspects of speech has focussed upon its sounds and silences as they relate to grammatical structure or to the personality and cognition of the speaker. Martin (1972), for example, has proposed a simple but intriguing model to describe the sound-silence sequences, i.e., the rhythmic pattern of speech segments, and has discussed its consequences for both grammatical structure and cognitive behavior. Boomer and Dittmann (1962) used pauses to examine the viability of the phonemic clause as a perceptual unit in speech. Mahl (1956) tended to view silences in speech as disruptive phenomena. A report by Siegman and Pope (1965) suggested that speech silences increase in frequency under the impact of stress. Levin, Silverman and Ford (1967) found the frequency of silences in children's speech to be positively related to level of task difficulty. Pause duration, however, was

found by Preston and Gardner (1968) to be positively related to need for approval.

The research relating personality and simultaneous speech that Feldstein and his associates are presenting at this symposium in part reflects the same focus as those studies just cited. In its attention, however, to the influence of one speaker's personality on the speech behavior of the other speaker, it also shares the focus of those investigations which recognize that spontaneous speech is most often uttered within the context of a dialogue. Such recognition suggests that the temporal, or rhythmic structure of an individual's speech should be viewed as part of the structure of the dialogue within which it occurred. One description of the time patterns of dialogue has been offered by Matarazzo and his colleagues (Matarazzo & Wiens, 1972). The present study, however, used the description proposed by Jaffe and Feldstein (1970) which classifies the sound-silence patterns of a conversation in terms of five parameters: Pauses, switching pauses, vocalizations, speaking turns, and simultaneous speech. For the purposes of the present study, only the first three parameters need be defined. A vocalization is a segment of interrupted, i.e., continuous, sound (speech) uttered by the speaker who has the floor. A pause is an interval of joint silence bounded by the vocalization of the speaker who has the floor, and it is credited to him. A switching pause is an interval of joint silence that occurs between a vocalizations of one speaker and a vocalization of the other speaker. It is, in other words, a silence terminated by a change of speakers. Since it occurs within

the turn of the speaker who relinquishes the floor, it is credited to him.

Research has demonstrated that the rhythmic patterns with which individuals engage in conversation, as indexed by the parameters just described, are both stable and idiosyncratic. Put another way, the parameter values reliably characterize individuals, but are capable of being modified by a number of contexts and conditions. In addition, the silence parameters, pauses and switching pauses, have been shown to be susceptible to interpersonal, or interspeaker, influence. Specifically, the average durations of the pauses and switching pauses of each participant in a dialogue tend to become similar to those of the other participant during the course of the dialogue. This type of interspeaker influence, this matching by the dialogue participants of their silence durations, has been called congruence (Feldstein, 1972).

Thus far, research indicates that the degree to which conversational participants achieve congruence appears to be related to the extent to which they are field dependent (Marcus, Welkowitz, Feldstein, & Jaffe, 1970), and to whether or not they mutually perceive their personalities to be similar (Welkowitz & Feldstein, 1969, 1970). Welkowitz and Kue (1973) have suggested that the achievement of congruence might be viewed as a form of empathic behavior. In their study of the conversations of adult peers, switching pause congruence was significantly related to independent

ratings of the warmth communicated by the conversational participants. Another study (Weikowitz, Rothstein, & Feldstein, 1974) of psychotherapeutic dialogues provided some evidence that the pause congruence achieved by the patient-therapist pairs was related to the degree to which (a) the therapist perceived himself as being effective, (b) the therapist perceived the emotional distress of the patient, and (c) the patient perceived that progress had been made during the session.

Given such research, it does not seem unwarranted to infer that the achievement of temporal congruence is dependent upon certain interactional, but nonverbal, characteristics of the dialogue participants. If so, temporal congruence implies at least some ability on the parts of the participants to recognize each other's characteristics and to communicate such recognition. If the development of that ability to, so to speak, take another person into account is viewed as part of the socialization process, then it might be expected that the emergence of congruence in children's conversations parallels the progression ego-centric to socio-centric speech.

Forty children, from New York City public elementary schools, were assembled into 20 same-sex pairs on the basis of age. The children in 10 pairs were from 5.4 to 6.1 years old, in the other 10, from 6.4 to 7.2 years old. Each pair engaged in a 20-minute conversation on each of two occasions spaced one week apart. The dyads were all composed of subjects who did not know each other prior to the experiment. The subjects were told, in simple terms,

that the experimenter was interested in listening to children talking to each other. The subjects sat at a table facing each other but were not restricted to their seats (Head microphones were used in conjunction with cords which could extend to describe a circle with a twelve-foot radius). The experimenter turned on the microphone and withdrew to a corner of the room to read a book. The 40 conversations were electronically analyzed in terms of the average durations of pauses and switching pauses. Inasmuch as previous research has shown that average durations of vocalizations tend not to reflect interspeaker influence, they were not subjected to analysis in the present study.

The results indicate that the average durations of pauses were consistent within each occasion for both the 5 1/2- and 6 1/2-year-old groups. The average durations of switching pauses yielded significant reliability estimates for both groups on the second occasion, but only for the older group on the first occasion. It might be noted, however, that the reliability estimates of both groups were higher for the second occasion. A comparison of the parameter values obtained on the first occasion with those obtained on the second occasion --- in other words, the stability of the average durations of pauses and switching pauses from conversation to conversation --- yielded coefficients that were all significant but were consistently higher for the older group.

Degree of congruence was estimated by using intraclass correlations that compared the average pause and switching

pause durations obtained by one member of a conversational pair with those of the other member, over pairs. The resulting coefficients suggest that the pause and switching pause durations of the older group reflect significant interspeaker influence on both occasions whereas only the switching pause durations of the younger group do.

The results support the general hypothesis. It is particularly interesting --- and in a certain sense provides additional support for the hypothesis --- that switching pauses, which may be considered inter-personal silences, reflect interspeaker influence earlier than the intra-personal silences called pauses. The next step, now in progress, involves comparisons of the rhythmic patterns of the younger and older children's conversations with their levels of vocabulary diversity.

Two recently completed studies are relevant to the results of the present one. Garvey and Ben-Debba (in press), in their examination of children's interactions, found that (a) speakers and their partners tended to use similar numbers of utterances in their conversations, and (b) the differences between the numbers of utterances of the speakers and their partners were significantly and negatively related to the age of the conversational pairs. Another study by Shatz and Gelman (1973) appeared to show that four years olds could adjust their utterance length to listeners younger than they but not to listeners who were older. Direct comparison between these studies and the present one is difficult



because the definition of "utterance" is, in the first study, ambiguous and in the second study, vague. Nevertheless, the results of the three studies tend to enhance the possibility that simply the way children pattern their verbal interactions in time may provide an index of the degree to which they are considered to be socialized.

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