Selected studies that examine social interaction variables which affect the language young children use in social play are reviewed. Interaction variables discussed in major sections of the paper are (1) the nature of social play; (2) egocentrism and its impact on verbal communication; (3) language as a functional behavior; (4) adaptation of language to environmental demands; and (5) social play training for language production. Findings discussed are summarized at the end of each section. Studies selected for review are taken as representative of contemporary research and not as inclusive. It is concluded that the language of social play is a rich, viable and rapidly expanding area for investigation. The theoretical notion of linking social, language, and play behaviors through their common intersect—imaging—will result, it is believed, in an increasing amount of research knowledge regarding children's social play and related factors affecting the quality and quantity of communicative interaction in children's environments. (Author/RH)
THE LANGUAGE OF SOCIAL PLAY IN YOUNG CHILDREN

by

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Sponsor: The United States Department of Education supported, in part, the development and writing of this manuscript. The senior researcher acknowledges its support and the views expressed in this document are those of the authors and do not represent this funding department.
The Language of Social Play in Young Children

Introduction

Investigating the child's language used in social play settings has only recently become a topic of interest in the cognitive study of young children. (Garvey, 1974). In a review of research in the social cognition, Shantz (1975) states that as early as a decade ago very little was known about children's understanding of their social world and the use of language and cognition in social contexts. Griffiths (1935) and Pulaski (1974), as examples, link social, linguistic and play actions through their common cognitive intersect - imaging. Imaging is the cognitive capacity to project and use action schemes in representation (Pulaski). As a result of linking social, language and play behaviors, an increasing amount of evidence is surfacing in regard to the nature of the child's social interaction with his environment.

In contrasting views of the environment relative to the ontogeny of pretend play, Fein (1981) explains the sources of language and social play and the linking processes of imaging. From one perspective, the environment is conceptualized as stimulation arising from outside of the organism and imposing a directing force on behavior independent of internal influences. From another perspective, the environment is conceptualized as being under the control of the organism and subject to arousal levels and motivating forces. As such the child is capable of exerting moderating influences on environmental antecedents. The youngster is capable of creating his own stimulation through pretend play modes. The latter perspective stresses the experiential history of the child, and intentional and interactive variables. The manner in which the child relates to and evokes the physical and social world is thus seen as being dependent on the interaction of variables arising from within and outside of the child.

In mentally evoking and using the physical and social worlds, Nicolich (1981) suggests that language and symbolic play could well reflect parallel development of
symbolic ability in young children. Correspondences can be seen in the representational nature of speech in regard to objects and events in the real world, and similar qualities observed in the gestural and play themes of children. Both involve the sharing of information with others and performing symbolic transformations in the process of testing hypotheses and mastering their environment. Results of correlational studies support a general play-language relationship. For example, the results of Whybark & Quay's (1971) and Rosenblatt's (1977) research show that youngsters who exhibit high levels of symbolic play are also those who show more complex language use. Evidence also exists for the co-occurrence of first words and pretend play behaviors (Bates, Camaioni, & Volterra, 1975; Volterra, Bates, Benigni, Bretherton & Camaioni, 1979; Warner & Kaplan, 1963). In addition, language and symbolic play proceed in linear fashion from single units to combinations of representational units. Later developing combinations become ruled-based and less tied to contextual restraints. Such standardizations of language form permits generalization, organization, and appropriate utilization of symbolic behavior more efficiently and according to the prevailing coding system (McCall, Eichorn & Hagarty, 1977; Muma, 1975).

From this point of departure, selected studies that examine salient interactional variables that impact the language of social play in the young child will be reviewed. More specifically, the interactional variables examined in the following sections of the paper are: (a) the nature of social play; (b) egocentricism and its impact on verbal communication; (c) language as a functional behavior; (d) adaptation of language to environmental demands; and (e) social play language growth.

The Nature of Social Play

Underlying the nature of social play are the commonalities between play in its various forms and language acquisition, production and elaboration. As described by Ratner & Bruner (1978), there are three basic commonalities between
play and language. And, these three commonalities also point to the value of early games and the importance of adult-child interaction. Underlying the social nature of play, the first commonality is that play and language both provide a restricted activity framework or "semantic" domain. Play and language in the form of social exchange provide activity and semantic frameworks for the child's actions. Examples include adult-child games like peekaboo and child-child play such as hide-and-seek.

The second commonality focuses on the task structure between language and play. This attribute of task structure refers to the ordering of events in communication and play which have a clearly marked beginning, middle and ending. This common characteristic permits some quantitative and qualitative degree of prediction of the children's actions. The third commonality is reversible roles. Both language and play impose a clearly demarcated role structure between individuals as observed through their verbal and/or motoric movements. Theoretically, this role structure among the players is reversible as children repeat the same and different play transpositions. In playing "house" for example, the children may repeat the episode. And, the youngest who plays mother now pretends he is the baby in the family. Theoretically, the older the child the more likely he is able to demonstrate reversibility of role structure. These three commonalities help explain the nature of social play and clearly point to interrelationships between play and language. Children and adults derive satisfaction from controlling their environments and behaviors of others around them. In play children set the rules, create, improvize and rearrange the play settings with great flexibility and freedom. Through language production, elaboration and function, children show that they are highly skilled in social behaviors and actions and are capable of extensive, complex, and diversified communication and group interaction.

Three studies that represent explorations of and provide further knowledge about the nature of social play are those conducted by Garvey (1974), Ratner &
Brunner (1978) and Sachs, Goldman & Chaille (1982). In investigating the properties of social play, Garvey (1974) comments that few studies have examined play in a social context. Her purpose was to describe the structure of spontaneous dyadic play episodes and to suggest basic competencies which underlie social play activity.

Garvey distinguishes four possible states that may exist when two children are together in a play setting: social nonplay (e.g., both youngsters may collaborate to repair a broken toy); nonsocial nonplay (e.g., one or both may independently explore an object); nonsocial play (e.g., one or both may engage in an independent imaginative activity); and social Garvey's play (e.g., one's behavior becomes modified by another's nonliteral and sequential behaviors which occur in sequences and revolve around a theme). In operationalizing these states, the observer must carefully and accurately distinguish play or nonliteral from literal or nonplay acts. Playful exaggeration of gestures and the existence of laughter, giggles and smiles are used in making such distinctions in studies by Bateson (1956) and Lieberman (1977).

In Garvey's study, children were accompanied by their nursery school teacher, to a laboratory play setting. They formed three groups of 12 dyads each: a younger age group (i.e., 3 1/2 to 4 1/3 years); a middle age group (i.e., 4 1/2 to 5 years); and an older group (i.e., 5 to 5 1/2 years). A total of 36 play sessions were videotaped and the results showed that focused interaction or mutual engagement occurred an average of .66% in each session. Speech occurred at the rate of one utterance every four seconds. Garvey's results demonstrate that the youngster and his partner recognized when a state play existed and developed rules for interaction which were mutually binding. Second, content of the play themes were subject to modification by both individuals in the dyad. These modifications were based on reciprocity and taking turns. Third, the children in the dyads showed greater person-centered rather than object-centered concerns. Person-centering is necessary for the flexible and rapid development of play themes. Fourth, ob-
servational, evidence revealed that the play participants often checked or made active efforts in evaluating the status play by announcing the intent to pretend or designating explicit role assignments.

Ratner & Bruner (1978) conducted a longitudinal study on the social nature of play and language. It involved two children whose play and language behaviors were observed in social-exchange games such as peekaboo with their mothers. The first child was observed over a period of five months; the second was monitored for nine months. This study also shows the interrelated effects of mother-child social play and development of potential communication skills in very young children. The results of the study show that early games and play actions between mother and child can assist the youngster's mastery of forms of native language. First, the social context of play with parent provides an accepting and supportive setting whereby the child is free to initiate variations without erring. Second, the results indicate that social play permits the development of reversible role relationships between mother and child. These role reversals mean that actions between mother and child are reciprocal and fluid. This reversible role relationship also reinforces the verbal and/or motoric actions of both mother and child. Third, the results demonstrated that social exchange play and game activities with mother and child provide predictable social and language task structures that are recognizable and functional.

Sachs, Goldman & Chaille (1982) focused on nature of social play and explored the use of language in developing a narrative line during social pretend play. Of the 36 children, 18 were boys and 18 were girls; they were videotaped in same sex and same-age dyads in spontaneous pretend play having the theme of doctor. The first 16 minutes of videotape from each play session across dyads were analyzed for speech changes in planning, framing and negotiating during these pretend episodes. For the four 2 year old dyads, the results show that no real reciprocal
role play occurred between the children of same age and sex. No actual plots were observed but the dyads did show joint uses of objects in these pretend transpositions. For the six 3 1/2 year old dyads, the results indicate that real reciprocal role play occurred between the two children at this age. No actual plots or coherent narrative lines were observed between individuals in the dyads but simple joint uses of play objects were noted. For the eight 5 year old dyads, the results indicate that real reciprocal role play and coherent narrative lines did occur. However, Sachs, Goldman & Chaille note that the narrative lines observed in the 5 year old dyads were limited by their lack of shared or mutual experiences and understandings and their relating and subsuming plot to object vis-a-vis object to plot.

In sum, results of the studies selected for discussion build a foundation for the nature of social play. First, the results of Garvey, Ratner & Bruner and Sachs, Goldman & Chaille all show that play states and their subsequent actions and activities are recognizable by the individuals in the transpositions. Each of these individuals in the interaction, at minimum, possessed the cognitive competencies to create and develop the play and the language abilities to communicate and exchange their thoughts between them. Second, the results of the studies show the necessity for reciprocal role reversals that ultimately define the nature of social play. Child and adult exchange roles in social play. These reciprocal role exchanges between individuals can be both motoric such as using and shaking a rattle and/or verbal, for example uttering and expanding on similar words or phrases in the play interaction.

Communicative Egocentrism

The view of the child as primarily egocentric in his orientation to the world (Piaget, 1926) is significant in regard to the interactional nature of social play and communication. In a discussion of social speech and social interaction,
Garvey & Hogan (1973) argue that children are sociocentric from birth and lack only the skills and talents to interact in a more social manner. Escalona (1973) describes some attainments necessary for more effective functioning in social contexts. Occurring primarily in the first two years of life, these crucial attainments include the ability to recognize strangers and familiar others; communicate wishes as well as aversions; and establish reciprocity through gestures and words.

Reciprocity and its various forms would require social awareness and the ability to adapt communication to situational and person related variables. Accordingly reciprocity is related to communicative egocentrism which rests on the assumption that children's speech is initially egocentric or self oriented and lacks social intent, and a private quality (Piaget, 1926; Vygotsky, 1962). Through the passage of time and as a result of social experience and cognitive development, the child's actions become increasingly social so that messages are modified to take into account the informational needs of the "other." Rubin (1976) states that egocentric speech has always been measured in highly controlled experimental settings (Glucksberg & Krauss, 1967; Maratsos, 1973). Such studies may therefore be only tapping the verbal repertoire of the child rather than true perspective taking skills. Using 34 children with a mean age of 56 months, Rubin explored communicative egocentrism with a classmate and a familiar, but minimally responsive adult, in separate 20-minute play sessions. Egoceanic speech was calculated according to Piagetian categories: repetition; monologue; and collective monologue. There were two social interaction categories: AI was the active interchange of frequency of responses in which the child is actively involved in play with another child and SCF meant the frequency of friendly responses another child makes to another individual. The results indicate that the children who use less egocentric speech were those who were most likely to engage in social interaction as measured in the play setting. In other words, a negative correlation was shown between ego-
centric speech and the frequency of peer interaction. Second, children who use egocentered speech are more likely to be interacted with by other children inferring the potential for peer popularity. Of the speech used in the play setting, 63% was identified as being social in nature, and 37% was found to be nonsocial.

In addition to egocentrism and reciprocity, the relationships between egocentricity and peer popularity were examined. Studies by Rubin (1972) and Deutsch (1976) explored peer popularity as a possible outcome of the ability to take another's point of view. Both of these investigations used a similar sociometric measure to evaluate the child's choices of whom they would like to play with most among their classmates. Rubin's results indicate that communicative egocentrism and the sociometric measure of peer popularity correlated significantly for 5 and 6-year-old children in kindergarten and second grade. With 60 girls, 3 to 5 years old, Deutsch's results show that communicative egocentrism was not related significantly to the verbal sociometric popularity measure. However, in conducting the study, she added a behavior observation measure to her study. Here, the results indicate that communicative egocentrism and the observational measure which identified who the children actually played with were, in fact, correlated significantly.

Although the question of whether relationships exist between communicative egocentrism and peer popularity is far from resolution, acceptance of each other in play settings could influence the nature and content of communicative interaction among children. Fillmore (1979) observed young Hispanic children characterized as showing limited English proficiency (LEP) and explored their abilities to adapt their communication to the functional requirements of the group. The results of the study show that LEP children adapted their communication abilities to the operational limitations of the group. Perhaps a similar communicative adaptive function might occur in the language of children who don't feel accepted or socially competent in play settings. Irwin, Baker-Flynn & Bloom (1976) conducted a study
on the use of expressive play therapy with emotionally and communicatively impaired children. Their purpose was to explore the effect of pretend play in establishing more functional peer relationships and personal adjustment. The results indicate that awareness of others through shared communications in a play setting was a central strategy in bringing about behavioral changes (Irwin, et al.). Second, the results show that social interaction was enhanced and communication patterns between group members were altered and modified through play.

In sum, the interactional variables of egocentricity impacts the language of social play. First, as children establish reciprocity among themselves through gestures and words, they are able to function more effectively in social contexts. As reciprocity increases, communicative egocentrism appears to decrease and the more likely children are to engage in social interaction as measured in a play setting. Second, relationships may exist between communicative egocentrism and peer popularity as a possible outcome measure of the ability to take another's perspective. The strength and the direction of the relationship may rest on differences between the use of the types of dependent measures (i.e., verbal versus observational) in determining peer popularity. Third, communicative egocentrism may be influenced by acceptance of each other in play groups, personal perceptions of self competence in social groups and by adult guidance and shared communication in play settings.

Functional Nature of Language

The functional nature of language refers to its use as a tool for the child in interacting in and responding to his environment based on his particular life's experiences (Nelson, 1974). Children attend to dynamic events that are functional for them in their social and physical worlds from which evolve speech forms and concepts commensurate with these interactive stimulus events. In examining the functional nature of language, selected studies (e.g., Mueller, 1972; Bruner,
1975; Nelson, 1974) show the results of and significant findings for language as a tool.

Mueller (1972) noted historically that the focus, in regard to the child's social speech, was on content rather than function or use of such verbal communication. Further, the focus on content has implied that children talk primarily to themselves and that verbal messages are poorly adapted to the listener's perspective (Mueller). He proposed to examine the maintenance of verbal exchanges between 24 pairs of children 3 1/2 to 5 1/2 years of age. These same sexed pairs were introduced to each other outside of a playroom. It was equipped with a variety of toys and games and they were told to do whatever they liked with the tangibles. These dyadic play sessions were recorded on videotape and analyzed by a coder. Mueller's results show that utterances occurred at the rate of one every nine seconds and that 62% of these utterances received a definite response, while 23% attracted the listener's attention. Mueller, in discussing these results pointed out that they did not support previous findings of great amounts of communicative failure in the spontaneous speech of 4-year-old children. Such discrepancies are reflective of the manner in which children respond in unstructured naturalistic settings (Mueller). Previous work (e.g., Glucksberg & Krauss, 1967) focused on a structured environment and specified precise communication tasks for the children to complete. And, success in solving the communication tasks in these previous studies did not improve with age. Mueller's results show that processes found to be important in the maintenance of verbal exchanges may emerge at younger ages than previously thought.

In agreement with Mueller's orientation on use vis-a-vis content of communicative exchanges, Garvey & Hogan (1973) suggest that the uses and forms of social speech must be put into perspective in regard to the child's social development. In order to operationalize this perspective, it is necessary initially to deter-
mine how frequently and extensively speech occurs in the child's interactions with others.

Bruner (1975) hypothesizes that the elements of "joint attention" and "joint activity" are the processes or elements by which the child acquires language as an instrument for furthering social interaction and learning. Similar to Mueller, Bruner's concern focuses on the functional aspects of language rather than its formal structure of syntax. In addition, listener attention and context in which verbal communication occurs, the two most powerful predictors of success in verbal communication in Mueller's study, are very similar to Bruner's elements of "joint attention and activity." In Bruner's scheme, "joint attention" refers to the attending of both parties (e.g., adult and child) to the same object or topic. "Joint action" refers to the listener's understanding of the speaker's meaning and the resultant perception of language by the child as being useful in attainment of goals and pleasurable experiences.

Nelson (1974) views "learning to talk" as a continuous process with no clear starting point. She describes speech as first used primarily in an expressive way through games, greetings, and other ritually useful forms. Such speech is described as formulaic in character with its function being reflected in its form. The use of expressive language formulas appears to be consistent with an imitative approach to language learning as well as with social contexts related to language use (Nelson, 1981). Through the language learning process, some children come to specialize in referential speech forms (i.e., those that name people, objects, actions, attributes, and relations). Of these forms a large number of children gravitate to those referents that have a dynamic quality, in that they move or change in some way, such as food, people, or animals. Out of the child's interactions with people and objects, concepts emerge. These concepts are described as cognitive organizations of information about the world that change with experience and development. Concept formation becomes somewhat language dependent as
semantic structure emerge that fit the child's experiences (Neldon, 1974).

In sum, the interactional variables of the functional nature of language impacts the language of social play. First, the function or use of communicative exchanges and its subsequent exploration assume an interactive setting between individuals and that communicative messages are adaptive to another's perspective. Second, the processes of "joint activity" and "joint attention" are significant elements in the maintenance of verbal exchanges between individuals in play settings. Third, function or use of communicative exchanges and maintenance of communicative exchanges emerge initially out of interactions with people, objects, and situations and at younger ages than previously thought.

Adaptation of Language to Environmental Demands

Basic to the language of social play in young children is another interactional variable to "adaptation of language to environmental demands (Fillmore, 1979; Sacks & Devin, 1976. This variable refers to modifications made on verbal and nonverbal communication strategies in group settings by various factors such as mutual activities in which children are engaged peer-peer relations, social play objects, characters which are role played and personal felt needs. Selected studies reviewed in this section which focus on language adaptation and environmental demands include: Fillmore, (1979); Garvey & Hogan (1976); Shatz & Gelman (1973); and Sacks & Devin (1976).

Fillmore (1979), in focusing on language, adaptation and environmental demands, investigated this variable in second language learners (i.e., Spanish to English). Children between the ages of 5- and 7-years-old were observed using formulaic language in order to join a group of English speaking children in a play setting. Expressive strategies recorded were: "whose turn is it"; "lemme see"; "gimme"; "I don't care"; "whaddya wanna do"; and "I'm gonna tell on you."
The results show that these expressive forms were more useful to and used a greater number of times by young second language learners in social groups compared than referential strategies. Fillmore notes that the conventional view of language learning rests on the sensorimotor period as outlined by Piaget (1926), but that the child is also capable of perceiving and adapting to social demand at an early age. The results point out that social interaction, therefore, can be said to dictate the function and content of speech supporting the view of language as a socially salient behavior that can be adapted by the child according to need.

Garvey & Hogan (1976) recruited 18 child dyads 3 1/2 to 5-years-old from local nursery schools. The children were videotaped in 15-minute play sessions; behavior was coded in terms of the time spent in mutually focused interaction (i.e., the state in which activities of members of a dyad are interdependent). In the study, social speech, defined as speech strictly adapted to the verbal or nonverbal behavior of the partner, was coded according to its result. Five categories of results were: (a) no apparent consequence; (b) unrelated speech; (c) attending behavior; (d) appropriate nonspeech behavior; and (e) appropriate speech. The results of the study indicate that the overall rate of appropriate speech was twice that reported by Mueller (1972). The greater magnitude of the result might be explained by the fact that these children were acquainted with one another for a longer period of time than Mueller's youngsters. First, the dyads were considered to be "in focus", or mutually engaged an average of 66% in each session. Periods judged "out of focus" were brief, with only one exceeding 2 minutes. Second, the time spent engaged in focused social speech among the older children ranged from 48% to 77% of the utterances coded and 21% to 64% for the younger children. Older dyads tended to produce longer verbal exchanges (i.e., 11 out of 12 of the older dyads produced sequence of six exchanges whereas only 3 out of 6 of the younger
dyads did so). Third, the results indicate that the children spend considerable time in social interaction that is mutually satisfying to both partners and that much of the interaction consisted of social speech. Fourth, results show that genuine social behavior does occur between children in the age range of 3 1/2 to 5 years. The four results taken together reflect the emergence of social understanding beyond that suggested by Piaget (1926). Language then may serve to coordinate and facilitate mutual engagement in play settings. It was also suggested that play activity becomes less important in promoting these mutual relationships as verbal facility increases.

In another study, Shatz & Gelman (1973) found that 4-year-old children, who perform poorly on standard tests of communicative egocentrism, such as those used by Glucksberg & Krauss (1976), were capable of adjusting their speech so that it was more understandable when talking to 2-year-olds. Such speech adjustments did not occur when addressing peers (i.e., other 4-year-olds), or adults. Speech modifications to enhance comprehension were also found to occur in mothers' speech to their young children. In support, Gleason's (1973) results of conversations in five families show that youngsters are quite capable of "switching codes" and talk differently to different people in their family units.

Sacks and Devin (1976) found similar results in four children 3.9 to 5.5-years-old who were recorded talking to different listeners (i.e., adult, peer, baby, and baby doll), and in role-playing a baby just learning to talk. The results show that the speech of children differed on such measures as: (a) preverb length (i.e., mean number of words before the main verb); (b) names (i.e., use of listeners' name for attention-getting); and (c) imperatives (i.e., commands, rules and orders). Second, the children observed did not talk to young listeners in the same manner as they did to their mothers or peers. Third, speech to the baby doll was different from speech to the mother and peers. Fourth, the results show that speech used in role-playing a baby learning to talk reflected that all the children were
aware of phonological and prosodic characteristics associated with babies' speech. Based on these four results, Sacks & Devin suggest that speech cannot be viewed simply from a grammatical point of view and that the characteristics of the person perceiving the communicative event contribute strongly to the nature of speech output in young children.

In sum, examining selected studies focusing on the adaptation of language to environmental demands show several interesting results. First, children who are second language-learners, use more expressive than referential language strategies in joining a social group composed of English dominant youngsters. Here, social interaction, used as a means of joining a group was modified by children in accord with their need to enter this boundary. Second, language may be adapted in quantity of utterances in order to coordinate and facilitate mutual engagement in play settings. The length of time children are acquainted with one another may also be an environmental factor in adapting language. Third, communication may be adapted depending on whether the listener is an adult, and similar or different age peer. Language modifications also occur when mothers are communicating to their children. Speech used with a baby doll as a play object, was different in quality and quantity from speech to mother and peer. Relative to adaptation of language to environmental demands, it appears that the essence of social play resides in the way it is done rather than what is done and that behavioral-affective systems, at least partly, evolve out of the quality of interactional social play.

Social Play Training for Language Production

Related to the previous variables of "adaptation of language to environmental demands" and "communication egocentrism," the variable of "social play training for language production" focuses on language of social play in young children. From the perspective of social play training for language growth, the environment and adult guidance of children qualitatively and quantitatively play greater roles in
group play than in the previous variables of environmental language adaptation and communicative egocentrism (Fein, 1981; Yawkey & Fox, 1981). From a research perspective, Saltz & Johnson (1974) has called this variable, orientation, and growing body of knowledge - "evaluative intervention research." Briefly, it uses social play as a vehicle for encouraging and fostering language production and growth in young children. And, it assumes that: (a) social play actions and activities can be constructively reinforced, shaped, and trained in varying degrees, and (b) social play is performed overtly and covertly and its overt manifestations can be observed and interpreted in young children through verbal and/or motoric modes of communication (Yawkey & Fox). A description of the major theoretical principles and basic psychological assumptions underlying evaluative intervention research for language (and cognitive) growth in young children are explained in detail elsewhere (Yawkey & Fox, 1981; Saltz & Johnson, 1974; Saltz, Dixon & Johnson, 1977).

From Fein's (1981) and Saltz & Johnson's perspectives, social play training for language production provides an additional thrust in and mainstream for understanding the interactive elements basic to language of social play in young children. Several studies that represent this variable are those conducted by Smilansky (1968); Saltz, Dixon & Johnson (1977); and Yawkey & Trostle (1982).

The focus of the now-classic study conducted by Smilansky (1968) was to determine whether social play, in sociodramatic form, could serve as a vehicle to effect performance changes in language production and growth. She worked with children from low and high socioeconomic status (S.E.S.) groups and trained low S.E.S. participants on social play behaviors reflective of high S.E.S. ones. With various control and experimental treatments, the findings showed that social play has the potential to effect growth of children's language. The results indicated that low S.E.S. children in the adult-guided play who received training on social play
behaviors reflective of the high S.E.S. ones, and those who received additional life experiences to extend the training, changed their social play behaviors relative to high S.E.S. subjects. Second, youngsters in the social play groups also significantly improved on mean frequencies of words used in oral sentences and of novel contextual words employed in social play exchanges. Third, children in the experimental treatment significantly increased their quantity of nonrepeated words compared to baseline language samples recorded prior to the treatment conditions.

Saltz, Dixon & Johnson (1977) in a three year study, worked with preschool children from low-income populations and trained them on forms of social group play consisting of either of: (a) thematic play; (b) sociodramatic play; or (c) fantasy discussion. The participants in the control treatment groups performed paste and cut and other kinds of art's and craft's activities. The children in the experimental social play and those in the control groups received contact with adults in the classroom while they participated in the various conditions. All the children were pre-tested in the beginning and post-tested six to seven months later across each of the three years of the project. The communication measure used across the study was a receptive language assessment, the Peabody Picture Vocabulary-Test which was replaced by the French Picture Test of Intelligence. First, the results indicated that children in the social play groups yielded significantly higher receptive language scores on the Peabody and French measures than those in the control groups on post-test assessments. Second, this significant effect occurred for children with higher Peabody and French receptive language scores prior to the onset of training.

Yawkey, Trostle & Aronin (1982) examined the effects of social group play and sex differences on language and imaginative production in young children. Pulled from middle income populations, there were a total of 96 children five years of
age participating in the study; they were randomly assigned to experimental and control treatment groups. And, there were an equal number of girls and boys across groups. The children in the experimental treatment group participated in the sociodramatic form of social play. In groups of 4 and 5, these children decided on general and broad actions for their forthcoming play episode. Using improvisation, the participants planned and then executed social play using content themes experienced in daily experiences. These themes included: (a) "A Bus Trip" using their recollections from a field trip to the country; (b) "A Birthday Party" based on a classmate's celebration; and, (c) "At the Zoo" using the children's ideas gathered from a trip to the zoo. In groups of 4 and 5, youngsters in the control treatment group performed activities for equal amounts of time and interacted with project staff in equal durations. The types of activities in the control groups were using toys, fingerpaints, construction paper, crayons and paste.

All the children were pre-tested before the study began and then post-tested at the end. The treatment across experimental and control groups lasted seven consecutive months. The language based dependent measures were: (a) Peabody Picture Vocabulary Test; (b) Gates-MacGinitie-Reading Readiness Test; and, (c) the Singer Imaginativeness Inventory. There were a number of interesting results. First, the results from the Peabody given as pre-test assessments indicate that children assigned to the groups across treatment and gender did not significantly differ; the participants assigned randomly to the groups were relatively homogeneous relative to receptive language development. Second, on the language-reading readiness measure, the youngsters in the social play group yielded significantly higher mean scores than those in the control and girls significantly outperformed boys. Third, on oral measures of imaginativeness, the participants in the social play group yielded significantly higher mean scores than those in the control groups and girls outperformed boys. Fourth, on oral measures of imaginativeness the girls
in the social play group performed significantly better than boys in the control treatment condition.

In sum, social play and its various forms can be used as an independent research variable in training studies. Overall, the results from studies on social play training for language production show that social play can significantly impact selected verbal and written types of language discourse in young children. First, the results of Smilansky's research show that social play relative to control group activity has the potential to improve oral language; the results of Yawkey, Trostle & Aronin show that social play can facilitate oral imaginative language as well as readiness capacities for understanding written discourse. Second, the findings from the Saltz, Dixon & Johnson's study indicate that social play compared to control group activities can significantly nurture higher levels of receptive language and this was particularly characteristic of children with higher initial language scores and prior to the onset of training.

Conclusions

The language of social play in young children is a contemporary area of empirical investigation. The precursors to this line of current research rest largely with the view of the human organism as active and dynamic who exerts moderating influences on environmental antecedents and in turn is affected by them in varying qualitative and quantitative ways (Fein, 1981; Yawkey, 1982).

Selected studies concerning language of social play in young children are identified and categorized into groups. The similar research studies form groups by salient variables which are factors related to or those that impact social play. The studies selected for review are only representative of contemporary research and not inclusive of the area or groups by variable. These studies simply illustrate the continued viability of research investigations in each of the variables and in the field of language of social play in young children. The five main variables are: (a) the nature of social play; (b) communicative
egocentrism; (c) language as a functional behavior; (d) adaptation of language to environmental demands; and (e) social play training for language growth.

First, in the nature of social play, results of research show that players recognize when the state of social play exists in the group. One characteristic of these states of social play is reciprocal role reversals whose overt manifestations can either be motoric and/or verbal communication. Second, and with the variable of communicative egocentrism, research results indicate that as communicative egocentrism decreases qualitative social interaction increases between children in play group settings. Communicative egocentrism is also influenced by qualitative variables within social play such as peer and group acceptance, perceptions of self, and shared communication.

Third, results of research studies provide additional and interesting insight into the variable of the functional nature of language which also impacts social play. Important elements of "joint activity" and "joint attention" evolve from group interaction and play significant roles in maintaining verbal communication between individuals in social play. Fourth, and in regard to the adaptation of language to environmental demands, results of investigations show that language is adaptative in quantity of utterances to and used in coordinating mutual engagements in play settings. Language is also adapted in group play depending on whether the listener is an adult or a peer and whether the peer is similar or different in age to the speaker. Fifth, the variables of social play training for language production represent another mainstream of investigation within social play. This variable stresses more of an impact of environmental factors on language production and examines the training effects of social play, as independent variables, on communicative growth in young children. Results of investigations in this area suggest that social play relative to their respective control groups have the potential to facilitate and increase oral communication and readiness forms of written discourse. And, social play compared to control groups can signifi-
significantly nurture receptive language production in young relative to the Peabody and French picture intelligence test.

The language of social play is a rich, viable and rapidly expanding area for investigation. The theoretical notion of linking social, language and play behaviors through their common intersect -- imaging -- will result in an increasing amount of research knowledge regarding the child's social play and related factors effecting the quantity and quality of communicative interaction in his environment.
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