
Talking It Up

Play, Language Development, and the Role of Adult Support

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Play helps children learn language, the authors claim, and they review the evidence for it. They suggest that play benefits children's language development because it incorporates many of the socially interactive and cognitive elements known to enhance language skills. Although much of this evidence proves correlational, they point to a series of recent intervention studies that offer evidence of a key variable linking play and language: adult support. In particular, guided play during which adults scaffold child-initiated learning seems ideal for developing language skills. Based on this evidence, they argue that understanding the efficacy of play for learning requires paying careful attention to the type of play involved and to its results. **Key words:** guided play; language skills; play and language development; scaffolding; sociodramatic play; symbolic play

Play as a Context for Language Development

LANGUAGE IS THE currency of social interaction and school achievement, so it is hardly surprising that thousands of pages have been devoted to understanding and encouraging optimal language acquisition in children (Clark 2003; Clark and Clark 1977; Dickinson et al. 2012; Frank, Goodman, and Tenenbaum 2009; Golinkoff and Hirsh-Pasek 1999; Golinkoff et al. 2000; Harris, Golinkoff, and Hirsh-Pasek 2011; Hoff and Naigles 2002; Hollich, Hirsh-Pasek, and Golinkoff 2000). Many of these investigations find that language thrives when children are interacting with adults and peers in a playful manner (Hirsh-Pasek and Golinkoff 2003; Smith 2010; Vygotsky 1967; Zigler and Bishop-Josef 2004),

suggesting that play can make important contributions to the learning of language. Evaluating just how play influences language, however, is a relatively new enterprise.

In a recent and influential paper, Lillard, Lerner, Hopkins, Dore, Smith, and Palmquist (2013) describe three categories of potential links between pretend play and other cognitive or social skills, based on Smith (2010). The strongest link one could posit is that play constitutes a unique and crucial component in the development of cognitive or social skills, which would not develop without it. This causal view holds that children cannot achieve, say, a kind of self-control if they do not engage in play; this skill would be impossible to acquire otherwise. Another claim suggests the link between play and learning is one of equifinality: play has a causal effect on the development of such skills but is only one of many activities that do so. In this case, play would help children gain self-control, but other activities would, too, and equally well. The third—and weakest—claim holds that play has no role at all in such development but is merely an epiphenomenon or a byproduct of learning the skills. This means that children's development of self-control involves play but not because of anything intrinsic to play itself. Rather, something connected to the play situation—such as increased social interaction—aids the development.

Although the categories Lillard and her colleagues present clearly delineate several relationships that play could have with cognition and, in particular, with language development, phrasing the options in such stark terms may inadvertently lead researchers to discount the more complex relationship that exists between language and play. Put simply, asking whether play causes language development may be the wrong question. Instead, we rephrase the question to ask: "What aspects of play might promote language development?" In answering this question, it becomes clear that play contains many of the ingredients necessary for optimal language development even though there may be no single element of play that does the majority of the work. Although this means we must accept the view Lillard and her colleagues call equifinality, it does not make play's role in language development unimportant. To the contrary, even if no single aspect of play is a necessary or sufficient condition for developing a particular language skill, various aspects of play—when taken in the aggregate—link play and language.

In the next section, we review the evidence connecting play to children's language development. We find this evidence suggests that play contributes to developing language skills.

An Issue of Definitions

To begin a review of the links between language and play, we need to define these two constructs. We begin by describing the kind of language on which we will focus, then we turn to defining play.

Languages are communicative systems that encode meaning through combinations of arbitrary symbols. Children acquire the rudiments of language by the age of three. At this time, they can converse with strangers, make their desires and opinions clear, ask questions, and discuss the past and the future. There are many different aspects of language that we could discuss, but here we wish to concentrate on the development of vocabulary and grammar. We do not explore the role of play in learning smaller linguistic structures, such as phonemes, or larger structures, such as narratives (Nicolopoulou and Ilgaz 2013). Children who establish the fundamentals of their vocabularies and syntactic skills in their early years are well equipped to enter school and to succeed socially and academically. Those who do not, such as a disproportionate number of children from lower socioeconomic brackets, often fall behind (Dickinson and McCabe 2003; Gershoff 2003; Hart and Risley 1995).

While linguists have provided relatively clear definitions of the characteristics of language, those who study play—which has blurry edges and takes many forms—wrestle with how best to define it.

Play can refer to just about any activity children do that meets a number of criteria. It can range from wordplay (e.g., crib speech, children's spontaneous riffing on phrases, and making rhymes; Nelson 2006; Weir 1962) to world play (e.g., paracosms, elaborate and extended imaginary worlds created by a single child or group of children; Root-Bernstein 2013). In line with previous research (Burghardt 2011; Fisher et al. 2011; Garvey 1990; Hirsh-Pasek et al. 2009; Hirsh-Pasek and Golinkoff 2003; Johnson, Christie, and Yawkey 1999; Pellegrini 2009; Sutton-Smith 2001), our definition of play emphasizes features that distinguish play from other activities. First, play has no specific purpose, and it is not linked to survival. Second, playful activities are often exaggerated—a pretend action often takes longer or involves a wider range of motion than a similar real action. Finally, play is joyful and voluntary.

Since we are concerned here with language development, we focus on the types of play for which we can observe an impact on language development. Specifically, we will consider the play of the early years, up to around age six. Although both play and language continue to develop after this age (Roskos

and Christie 2001), play likely has its greatest effect when children learn the fundamentals of language. Also we will consider only instances of play that involve some degree of socializing, because children are particularly likely to use language in social settings.

Finally, we emphasize that play is child led. While it is notoriously difficult to distinguish play from other kinds of activities, one way to distinguish it involves looking at who enjoys the locus of control. In play, children's interests—not those of adults—determine how an interaction moves forward. This marks a crucially distinctive aspect of play, one of the main features that researchers use to determine whether a given interaction qualifies as play or as merely playful. This is also one of the features that characterizes guided play, a form of play in which adults scaffold children's active exploration in service of a learning goal (Fisher et al. 2011; Hirsh-Pasek et al. 2009; Weisberg, Hirsh-Pasek, and Golinkoff 2013b). In such situations, children are free to play and interact however they like, but a sensitive adult prepares the environment and joins subtly in the play to help children focus on specific elements. This situation still counts as play because the adults follow the children's lead. When the adults are in control, the activities resemble work dressed up in play clothes—what Bruckman (1999) termed “chocolate-covered broccoli.” Such activities might be playful, and even fun, but they are not technically play.

Our definitions in place, we next ask: Do play contexts offer important support for language growth?

The Role of Play in Early Language Development

Four characteristics of play potentially link play and language skills. First, many forms of play enlist symbolic thinking. In object-substitution pretense, for example, props serve as symbols for real objects, as in the classic banana-as-telephone scenario. This relationship between a prop and the object it represents resembles the relationship of a word to its referent. Because both play and linguistic communication share a representational character, play provides children with opportunities to practice forming symbolic relationships (McCune 1995; Miller and Almon 2009; Piaget 1962; Vygotsky 1967). Indeed, Tamis-LeMonda and Bornstein (1994) found that the frequency of symbolic play related to children's language comprehension at thirteen months and to the diversity of a child's speech at twenty months. In a similar investigation, Laasko and others (1999)

observed solo symbolic play in fourteen-month-olds and found that children's level of language comprehension was associated with their symbolic-play competence at eighteen months, as measured by a version of the Symbolic Play Test (SPT; Lowe and Costello 1976). It could be, however, that children who played more gained better language skills or that children who had better language skills played more. Future studies should aim at unraveling the direction of these correlations. In addition, children can learn generic knowledge about animals from a symbolic, pretend context. For example, when presented with a pretend scenario that illustrated the behavior of an animal new to them, children readily generalized the behavior to instances of the animal in real life (Sutherland and Friedman 2012 and forthcoming). These studies suggest that the connection between play and language development may rely on the shared symbolic nature of both activities. Creating object-symbol relationships during play may afford children practice in distancing themselves from the here-and-now, preparing them to use words as abstract referential symbols. But this argument remains largely theoretical and would benefit from studies focusing on whether and how play develops children's symbolic understanding.

Second, the social interaction inherent in many types of play may also feed language development. In sociodramatic play, children establish a play frame (e.g., going to the store) and collaborate to create it. Such frames often involve the need to negotiate roles and coordinate actions, which typically recruits the use of mental-state verbs (e.g., want, explain; Pellegrini and Galda 1990). Further, children often switch back and forth between speaking within the play frame (Can you give me some milk?) and providing commentary or stage directions (I'm the baby; you be the mommy; Bretherton 1989). These two activities—taking on roles and negotiating—point to aspects of social play that appear to encourage children to practice more advanced linguistic forms than they would use in other interactions. As Bruner wrote, “the most complicated grammatical and pragmatic forms of language appear first in play activity” (1983, 65). The evidence suggests that children are indeed more likely to use complex language when they play than when they do not (Bergen and Mauer 2000; Christie and Enz 1992; Christie and Roskos 2006; Singer 1998), although future work should more carefully document the contrast.

Third, the sheer amount of language input available in play also contributes to language development. It is well known that the amount of language children hear strongly relates to their overall linguistic skills (Hart and Risley 1995; Hoff 2006; Hoff and Naigles 2002; Hurtado, Marchman, and Fernald 2008;

Tamis-LeMonda and Bornstein 2002). Play with adults and peers bolsters language development because it encourages greater language use. For instance, the amount of time children talk to their peers during play in preschool positively relates to their vocabulary size in kindergarten (Dickinson and Moreton 1991), as well as to measures of early literacy (Roskos and Christie 2013). Additionally, Dickinson and Tabors (2001) examined the relationship between talk during pretend play and language skills among low-SES (socioeconomic status) children from three years of age through kindergarten. Increased time spent talking during play with peers was associated with better comprehension and production. Indeed, a recent clinical report rightly advocates for the importance of play, especially for children of low-SES (Milteer, Ginsburg, and Mulligan 2012).

Finally, play might be important for language development because, when children are in control of an interaction, they are engaged. They speak about and listen to what interests them. When talk refers to those things that concern a child, she does not have to switch attention from her own focus of interest to that of another. Similarly, a child is more likely to learn novel vocabulary items when an adult follows her interest as opposed to making the child follow the adult's interest (Dunham, Dunham, and Curwin 1993). Even toddlers recognize the role of social cues in vocabulary learning. They learn new words only when a speaker clearly labels an object for their benefit and not when a speaker mentions the label outside of the one-on-one interaction (Baldwin et al. 1996). Thus, social play with other children and adults sets a child up to learn new words and sentence structures because she is deeply involved in the play situation. A direct test for this claim should measure both the child's engagement and her degree of learning in play and in other activities.

These are only four reasons why the research literature shows that play relates to language development. The studies we have reviewed (and many others indicating associations between play and advanced language skills or larger vocabularies; Lillard et al. 2013) are, however, largely correlational. It remains unclear whether playing causes children to develop better language skills, whether children with better language skills play more, or whether a third variable is responsible for both better language skills and increased play. Indeed, some researchers have found that children with larger vocabularies are more likely to engage in symbolic play (Smith and Pereira 2009), suggesting the reverse direction of causation from the one we have described. A stronger case for play's contribution to language development comes from intervention studies.

Intervention Studies of Play and Language Development

Lillard and her coauthors noted four intervention studies that directly examine links between play and language: Christakis, Zimmerman, and Garrison (2007); Levy, Schaefer, and Phelps (1986); Lovinger (1974); and Smilansky (1968). There are other studies that address the same issue. In general, these studies increased the amount of play by providing children with more time to play or with some play training and reported subsequent increases in language use. These studies bolster the claim that play serves to facilitate language development. For example, Lovinger (1974) found that a group of four-year-olds who engaged in one hour of pretend play every day for twenty-five weeks showed increases in language use relative to a control group, who received no intervention. A similar study (Bellin and Singer 2006) involved performing a video-based intervention with low-SES preschoolers. Parents, teachers, and other caretakers received engaging video materials that instructed the participants how to guide a “Magic Story Car” through a number of activities to improve emergent literacy skills such as phonemic awareness and letter recognition. A key part of this intervention was that children were not simply passively watching a program on TV. Rather, the video served as a spark to encourage beyond-the-screen activity. Following the video, care givers and children created their own Magic Story Cars and engaged in pretend games about their own adventures. In just two weeks, children in the experimental group showed significant gains in vocabulary and emergent literacy skills compared to a control group.

These studies suggest that the presence of an adult partner in the play environment might be one key to explaining the relationship between language and play. For example, Christakis et al. (2007) distributed sets of plastic blocks and suggestions for how to play with them to families in their intervention group. The intervention explicitly aimed at encouraging playful language interaction to spur children’s language development. A control group of the same demographic did not receive block sets or instructions on play, hence the researchers assumed these families were carrying out their usual activities. Greater vocabulary growth resulted for the children in the intervention group than for the control group, as expected. This study, as well as others cited, provide strong evidence that our third and fourth mechanisms—increased input and child engagement—explains why play is linked to language growth. In addition, the absence of such playful interaction between parents and children might be responsible

for low-SES children's poorer language skills compared to those of children in middle-class families.

Although these studies appear to demonstrate positive effects of play on language, they all suffered from methodological problems, most prominently the lack of proper controls. As Lillard and her coauthors (2013) noted, the experimental (play) group in these studies was nearly always confounded with the presence of more adult attention. Children in the control groups sometimes received no intervention at all, let alone from an attentive adult partner. Adult attention and interactivity in any setting is likely a key variable in boosting children's language skills. But some more recent and more carefully controlled studies show that play *per se* causes specific effects on language development over and above the effects of adult interaction. For example, Han and her colleagues (2010) provided two groups of low-income children with a thirty-minute didactic vocabulary-learning activity. This activity was essentially the same across groups, except that the children engaged in play received a shortened version (twenty minutes) as well as time to play (ten minutes). Unlike the studies we have already reviewed, this intervention group matched the control group in terms of amount of adult contact. Children in both groups made gains in their receptive vocabulary (i.e., words they understood), but only the children who had played made gains in their expressive vocabulary (i.e., words they produced).

Other research also finds that play itself likely boosts language learning, sometimes by providing increased input and sometimes by increasing child engagement. Ferrera and her coauthors (2011) showed that the type of play context matters for how much spatial language children hear, including terms like "around," "through," "on top of," and "under." These researchers compared the amount of spatial language produced when parents and children played with blocks. Both parents and children used more spatial language when they participated in guided play, where parents followed their child's lead while scaffolding the interaction, as compared to free play, where the play was allowed to go wherever the child wanted. This study provides more evidence that interactivity, especially when it is sensitive to a child's own interests, is one of the key elements of play that helps children learn language.

A similar study examined the impact of a play context on children's understanding of the names and properties of geometric shapes. Fisher et al. (forthcoming) studied preschoolers' comprehension of a term like "triangle." Children who learned it in guided play showed increased understanding and retention compared to children who learned it either in free play or didactically. Impor-

tantly, children acquired richer geometric concepts during guided play even though an adult was also present in the didactic teaching sessions, showing that the effect was not due solely to the presence of a social partner. The most dramatic effect of guided play became evident when children taught with this strategy proved much better at accepting unusual triangles (e.g., those with especially wide or narrow internal angles) as triangles.

These results suggest that some characteristics of play may be more beneficial to learning than others. Most notably, guided play seems optimal for achieving learning goals in language development. Crucially, during guided play, adults capitalize on teachable moments to support children's learning. Language development seems to thrive particularly well in such settings because children benefit from having an attentive and sensitive adult partner who talks of the things that interest them. Just as children in the guided play studied by Fisher and her colleagues (2013) learned to extend geometric terms appropriately, perhaps children learning other types of new vocabulary can understand more deeply the meanings of words when they acquire the words through guided play.

A large-scale in-progress intervention study (Dickinson et al. 2013) suggests that this may indeed be the case. In this study, children enrolled in Head Start programs were taught new vocabulary words in the course of reading a book. They then played for ten minutes with two peers, using objects that helped replicate the world of the book (e.g., toy animals and tools accompanied a book about farming). There were three play conditions. In free play, children could do anything they wanted with the toys. In directed play, children reenacted the story of the book, led by a researcher following a script that contained definitions of and comments about the targeted vocabulary. Importantly, the directed-play condition offered the children opportunities to play with the toys (e.g., Let's make the duck bring the cow back from the barn) but very few opportunities to express their preferences; the adult directed all of the play actions. Finally, during guided play, children played with the toys however they wanted, as they had during free play. But, unlike during free play, the adult researcher asked questions intended to support the children's themes and storylines while highlighting the target vocabulary. These questions were designed to take advantage of spontaneous moments during play when the children focused on the meanings of the new words. For example, the experimenter might notice that a child was holding a cooking pot and use that as an opportunity to introduce and emphasize the target word "scrumptious." The directed- and guided-play conditions contained the same number of uses of the new words and the same number of definitions.

Preliminary findings suggest that children learned the words better during directed and guided play than during free play, as assessed by looking at both which words children understood (a receptive task) and which words they were able to define (an expressive task). These results are exciting because they suggest an alternative to mere vocabulary drills. Play settings succeeded in deepening children's understanding of the new words. In addition, these results suggest that adult-supported play works best to focus children's attention when there is a learning goal. Children learned the target vocabulary significantly better than a matched set of words present in the book reading but never defined or included in the play. The adult-supported play affected children's learning above and beyond what could be explained on the basis of simple exposure to the words during the book reading.

This study also discovered an interesting difference in children's levels of learning of the new words depending on their home environments. Although all children came from low-income backgrounds, their mothers' level of education varied. Children whose mothers were one standard deviation below the group mean (i.e., they had less than a high school education on average) learned new words best during directed play. In contrast, children whose mothers were one standard deviation above the group (i.e., they had at least one year of college or trade school) learned new words best during guided play.

Why should guided play, which relies on an adult following the children's lead, result in better learning for those from low-income homes in which mothers had higher levels of education? During the study, children who engaged in guided play had unlimited opportunities to explore and follow their own interests. Perhaps guided play works better for children who have had greater opportunities to initiate story lines, to enjoy joint attention with adults, and to garner adult-supported scaffolding for those story lines. Mothers with a bit more education may engage with their children in this kind of play. In contrast, children who came from homes with lower levels of education benefited from the increased structure and adult oversight available during directed play. Even if our analysis is not entirely correct, these findings nevertheless illustrate that distinct forms of play may be differentially effective at promoting development, depending on who is doing the playing.

This preliminary finding may have important implications for educational practices designed to promote language development. The best possible environment for encouraging language development would involve intervention tailored to the individual needs of each child. However, given the practical barriers to

implementing curricula tailored to individuals, play for learning should occur with groups of children who have similar backgrounds and abilities.

Conclusions

What is the connection between play and language? Although Lillard and her colleagues concluded that play's relationship to language learning could be causal, equifinal, or epiphenomenal, we draw a stronger lesson from the current evidence. Play is highly beneficial to children's language skills and provides a supportive context for language learning. Specifically, play contains a variety of elements that stimulate the kinds of conditions that grow language. These elements are likely not unique to play; rather, play is one of many contexts in which several of these elements converge (Weisberg, Hirsh-Pasek, and Golinkoff 2013a).

This convergence seems to apply especially in the case of adult interaction. Guided play, which incorporates elements of adult scaffolding in service of a learning goal but which primarily follows a child's lead and builds on her interests, provides a particularly effective language-learning environment. Indeed, our definition of play emphasizes the need for the child to lead the activity. Activities like the directed play of the Head Start vocabulary-learning study (Dickinson et al. 2013) do not count as play. In these vocabulary-building activities, an adult provides a script for the play session and asks the children to perform actions within that script—a perfect example of chocolate-covered broccoli. The Head Start study has so far only produced evidence that guided play, which is child directed, leads to as much learning as does this playful (but essentially nonplay) directed activity. Thus, under some circumstances, adult guidance of children's play serves a learning goal as well as adult direction can.

Such a conclusion offers a new goal of early-childhood education. Given that the same outcomes can be achieved during play in which children themselves take the lead and genuinely enjoy learning, we suggest that such play should replace at least some of the more adult-controlled play-like (but nonplay) activities. Our suggestion makes a marked contrast to current educational practice, at least in the United States, which emphasizes drilling and testing over playing and exploring (Miller and Almon 2009). But our review shows that children who engage in play with attentive and responsive adults will improve their language skills. We thus urge that curricula take advantage of this fact and

incorporate spaces where children can feel free to follow their own interests in partnership with teachers.

Future work on this topic should investigate more fully play's role in the development of language skills and other key cognitive abilities. As we do that, we must keep in mind that the relative impact of play may change depending on the type of play and on the learner who is engaged in the play. As the results of the study by Dickinson et al. (2013) on maternal education levels suggest, children become more able to take advantage of opportunities to learn through play as they become more advanced learners and social partners. We believe that these kinds of distinctions will become even more important as we continue to investigate play's role in the development of language skills and other key cognitive abilities. In turn, we may need to refine our notions of what play is and what play can do. Not all play is created equal.

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