Why Is Infant Language Learning Facilitated by Parental Responsiveness?

Catherine S. Tamis-LeMonda¹, Yana Kuchirko¹, and Lulu Song²
¹Department of Applied Psychology, New York University, and ²Department of Early Childhood Education/Art Education, Brooklyn College, City University of New York

Abstract
Parents' responsiveness to infants' exploratory and communicative behaviors predicts infant word learning during early periods of language development. We examine the processes that might explain why this association exists. We suggest that responsiveness supports infants' growing pragmatic understanding that language is a tool that enables intentions to be socially shared. Additionally, several features of responsiveness—namely, its temporal contiguity, contingency, and multimodal and didactic content—facilitate infants' mapping of words to their referents and, in turn, growth in vocabulary. We close by examining the generalizability of these processes to infants from diverse cultural communities.

Keywords
language development, parenting, responsiveness, word learning, infancy

How do infants transition from prelinguistic babblers to relatively skilled consumers and users of words and sentences in a span of 2 short years? We share the view with a history of socio-cultural theorists that language development is a collaborative process in which infants construct meaning out of shared activities with members of their communities, most notably their parents. Infants communicate their interests through gaze, object exploration, gestures, and vocalizations; parents respond to these signals with words and actions; and infants benefit from their parents' responsiveness by learning words for the objects and activities that surround them.

Here, we focus on the role of parental responsiveness in infant language development and thereby contribute to the view that early word learning is an emergent product of cognitive, attentional, and social factors (Hall & Waxman, 2004; Hollich et al., 2000). Our definition of responsiveness emphasizes parents' prompt and contingent replies to infants' exploratory and communicative actions (e.g., Bornstein, Tamis-LeMonda, Hahn, & Haynes, 2008). Responses are "prompt" when they follow infant action within a brief time window, and responses are "contingent" when they are conceptually dependent on infant action. We begin by presenting empirical evidence on the facilitative role of responsiveness for infants' emerging language. We then ask, "Why do infants benefit from responsive language partners?" and offer a process-based understanding of early language development in social context.

Responsiveness and Early Language Development
Parents' responsiveness promotes infants' communicative skills well before infants produce conventional words. For example, researchers have documented real-time changes in the sophistication of infants' babbling following maternal responsiveness. In one study, infants were randomly assigned to a contingent-feedback condition (i.e., mothers were instructed to verbally respond to their infants' babbling) or a noncontingent-feedback condition (i.e., mothers' verbal input was temporally dissociated from their infants' babbling; Goldstein & Schwade, 2008). Infants in the contingent condition modified their babbling to mirror the phonological structure

Corresponding Author:
Catherine S. Tamis-LeMonda, 246 Greene St., Room 410W, New York, NY 10003
E-mail: catherine.tamis-lemonda@nyu.edu
Why is Infant Learning Facilitated by Parental Responsiveness?

**Article Summary**

Infants in the process of learning language are facilitated by parental responsiveness. Why is this? Catherine Tamis-LeMonda, Yana Kuchirko, and Lulu Song delve into this topic and try to explain in the article. Infants communicate through garbled noises, movements and exploration, and the way parents react and respond to their communications plays a vital role in the child’s development. When the parent speaks or adds input to the child’s actions or noises, the child forms its response in a phonologically similar way. When a child is two years of age, they begin to use small words and may even string these words into small choppy sentences. The more the parents respond to this type of language, the more the infant learns learn and can develop a better structured vocabulary. Studies show that the higher responsiveness mothers tend to have infants that reach milestones, such as first word, up to four to six months sooner than mothers who do not respond to their child.

The father’s responsiveness plays a factor as well. Through the ages of two and three, the fathers responsiveness could predict the cognitive and language learning skills of the child later in the child’s development. The benefits the child receives due to the parent’s responsiveness is not just because of genetics. In fact, adopted children tend to show the same results.
Infants apply intersubjectivity to their lives as they get older. This means that they have an intention while speaking, and they expect the listener to comprehend what they are saying. As infants grow older, they begin to show secondary intersubjectivity, which is the appreciation of communication skills and understand the intentions of others. This helps explain why the quicker the parents respond to their kids, the quicker they strive for knowledge. They appreciate and understand what they are being told, and store the information away to apply to other situations later, which is semantic learning.

Responsive behaviors can be categorized into three main sections. The first category being contingent and contingent. This means that the responses are temporally connected and conceptually dependent to the child’s actions. The second section is didactic and embodied, which is where the response is informative to the child and applied while the child is looking or touching the object they are talking about. When parents respond with this type of response, it broadens the infant’s knowledge. The last section is the scaffolding, or supporting the child’s efforts. This allows them to be more skillful than they would if they relied only on their own abilities. For example, parents tend to use less skilled words when the child is younger. But as the child grows older, they begin to use more skilled words, words the child may not yet know, which in turn helps them broaden their vocabulary.

Application to Psych 1100

In Psychology, we have went over Development and Chapter Seven (Learning). As we learned in class, Vygotsky and his interest in cognitive development led to the discovery that parents use a tool called scaffolding in order to help their children learn. Applying this to the article, the parents provided initial help as the child was young, in order to help them set up a
beginning vocabulary. But as the child begins to grow older and their vocabulary expands, the parents take away the simple vocabulary the child may already know and use more complicated words, in order for the child to learn.

The children's talking behaviors are strengthened and improved when the parents respond to them, and although the parents might not even be aware of what they are doing, they are using operant conditioning to help train their child. We learned in class and read in the textbook that operant conditioning is when you associate a certain response and its consequence and increase good behaviors, and decrease bad ones. The parents responding to their child are using positive reinforcement. In other words, they are adding their approval and their help in order to increase the behavior of the child talking.