



Contents lists available at ScienceDirect

Infant Behavior and Development



Socially guided attention influences infants' communicative behavior



Jennifer L. Miller^{a,*}, Julie Gros-Louis^b

^a Department of Psychological and Brain Sciences, Indiana University, United States

^b Department of Psychology, Iowa University, United States

ARTICLE INFO

Article history:

Received 14 January 2013

Received in revised form 30 May 2013

Accepted 28 June 2013

Keywords:

Prelinguistic

Attention

Social

Gestures

Caregiver interaction

Sensitivity

ABSTRACT

For effective prelinguistic communication, infants must be able to direct their attention, vocalizations, and nonverbal gestures in social interactions. The purpose of our study was to examine how different styles of caregiver responses influenced infant attentional and communicative behavior in social interactions, based on prior studies that have shown influences of responsiveness on attention, language and cognitive outcomes. Infants were exposed to redirective and sensitive behavior systematically using an ABA design to examine real-time changes in infants' behavior as a function of caregiver responses. During the two baseline "A" periods, caregivers were instructed to play as they would at home. During the social response "B" period, caregivers were instructed to respond sensitively to infants' behavior on one visit and redirectively on the other visit. Results demonstrated that when caregivers behaved redirectively, infants shifted their attention more frequently and decreased the duration of their visual attention. Caregiver responses also resulted in changes in vocal and gesture production. Infants decreased their production of caregiver-directed vocalizations, gestures, and gesture-vocal combinations during in the redirective condition. Results suggest that caregiver sensitive responding to infants' attentional focus may be one influence on infants' attentional and prelinguistic communicative behavior.

© 2013 Elsevier Inc. All rights reserved.

1. Introduction

Much research has examined the relation between caregiver responsiveness and outcomes in cognitive, attention, social, communicative, and emotional development (Bornstein & Tamis-LeMonda, 1997; De Wolff & van Ijzendoorn, 1997; Stams, Juffer, & van Ijzendoorn, 2002). Caregivers' responses can be classified as sensitive or redirective, with sensitive responses defined as prompt, contingent and appropriate responding (Ainsworth, 1973; Bornstein & Tamis-LeMonda, 1989; "follow-in" Tomasello & Farrar, 1986), whereas redirective responses are unrelated to a child's behavior or attentional focus (Ainsworth, Blehar, Waters, & Wall, 1978; Baumwell, Tamis-LeMonda, & Bornstein, 1997; "directive" Baldwin, Markman, Bill, Desjardins, & Irwin, 1996). Sensitive responsiveness predicts more positive development, whereas redirectiveness is negatively associated, or not related, to outcomes (Baumwell et al., 1997; De Wolff & van Ijzendoorn, 1997; Egeland, Pianta, & O'Brien, 1993; Goldsmith & Alansky, 1987; Landry, Smith, Miller-Loncar, & Swank, 1997; Stams et al., 2002;

* Corresponding author. Present address: Department of Psychology, Illinois Institute of Technology, 3105 S. Dearborn Street, Chicago, IL 60616, United States. Tel.: +312 567 3635.

E-mail address: jmille38@iit.edu (J.L. Miller).

Tamis-LeMonda, Bornstein, & Baumwell, 2001). For example, maternal responses that are sensitive to children's attentional focus can influence language comprehension, production, and social communicative behavior (Baumwell et al., 1997; Paavola, Kunnari, Moilanen, & Lehtihalmes, 2005; Tamis-LeMonda et al., 2001).

Although many studies have demonstrated the long-term developmental consequences of sensitivity, what is lacking is a link between differential caregiver response styles and real-time changes in infant behavior; most studies focus on caregiver behavioral characteristics and outcome variables weeks to months later. Long-term changes must be grounded to immediate changes in behavior to understand the mechanisms of developmental change. Intervention studies suggest that changes in moment-to-moment interactions have effects on developmental trajectories over time. For example, manipulations to increase maternal responsiveness have resulted in an increase in infants' focused and sophisticated toy exploration over the period of the intervention (Riksen-Walraven, 1978; van den Boom, 1997; see also Belsky, Goode, & Most, 1980; Parrinello & Ruff, 1988). The few studies that have examined short-term effects of caregiver sensitivity provide suggestive evidence that style of responsiveness influences infant attention in the moment, which may have cascading effects over time. Short-term experimental manipulations of experimenter behavior revealed that children showed shorter durations of attentional engagement and more attentional shifts when interacting with an experimenter exhibiting redirective behavior (Miller, Ables, King, & West, 2009). Taken together, the intervention and short-term studies suggest that the effects of caregiver responsiveness on object exploration are likely related to effects on infants' attentional engagement.

Previous studies have demonstrated the relationship between infant attention, such as joint engagement, and infant communicative behavior, such as gestures, word production and comprehension (Carpenter, Nagell, Tomasello, Butterworth, & Moore, 1998). The purpose of this study is to examine how caregiver responsiveness affects attention and communicative behavior in real time interactions, as attention toward social partners is a key component of prelinguistic communication (Bates, Camaioni, & Volterra, 1975; Carpenter, Mastergeorge, & Coggins, 1983; Crais, Douglas, & Campbell, 2004; Rochat & Striano, 1999; Seibert, Hogan, & Mundy, 1982; Tamis-LeMonda et al., 2001). Therefore, we aimed to explore real-time effects of caregiver responses that may contribute to long-term communicative outcomes, such as gestures. We manipulated caregiver behavior to systematically expose infants to both sensitive and redirective responses in a short time frame because we wanted to examine how infants would respond to different patterns of social responsiveness of a familiar individual. If infants did respond to different kinds of social responsiveness by a caregiver, it would suggest that infants' behavior is influenced by the immediate interaction rather than being influenced globally by the relationship. We predict that when caregivers are redirective, infants will not only have shorter attention spans as predicted by the Miller et al. (2009) study, but they will also have fewer directed behaviors, such as gestures and vocalizations, as suggested by Carpenter et al. (1998). When caregivers are sensitive, infants will either increase their directed behaviors or maintain similar levels given that previous studies of middle-class caregivers have found they typically respond highly sensitively (e.g. Miller et al., 2009; Dewey and Gros-Louis, submitted for publication).

2. Methods

2.1. Participants

Participants were selected from a database composed of published birth records from Monroe County, IN and maintained by the Department of Psychological and Brain Sciences at Indiana University. A total of twenty-two 13–16-month-old infants (10 females, mean age: 15.4 months, range: 13 months 10 days – 16 months 10 days) participated in the study with one caregiver (20 mothers, 2 fathers). Demographic data was available for all of the caregiver–infant pairs based on voluntary demographic questionnaires given prior to the study. Nineteen caregivers self-reported as white (non-Hispanic), one Hispanic, one Korean, and one Japanese. All of the caregivers had at least a high-school diploma, with 21 caregivers holding a bachelor's degree or higher. Twenty-one of the caregivers reported speaking English as the primary language at home and one spoke English and Japanese. Caregivers reported no known hearing problems for their infant and all infants were born full term. An additional five infants were not included for the following reasons: (1) two caregivers did not follow instructions during the study; (2) one participant did not schedule a second visit; (3) one caregiver did not speak English during the study; (4) equipment malfunction. Participants were given a book or toy as compensation for their participation after the first visit and a gift card after the second visit.

2.2. Apparatus

Caregivers and infants were video recorded playing with a standard set of toys in a 3.9 m × 4.6 m playroom. A large toy box was placed in the corner of the playroom that contained a variety of toys including pop-up toys, soft books, toy blocks, a dump truck, and soft puzzles. The large playroom and toy box allowed infants and caregivers to move around without constraint to engage in interactions with one another. The same toys were available during all infants' visits. To obtain high quality audio recordings, infants wore a pair of overalls with a small wireless microphone and transmitter (Telex Communications FMR-150). Caregivers also wore a small wireless microphone and transmitter. Caregivers and infants were recorded with four wall-mounted camcorders (Sony HDR-HC7) via a digital video mixer (Videonics MX-1 NTSC). The video feed was sent to

Download English Version:

<https://daneshyari.com/en/article/10452715>

Download Persian Version:

<https://daneshyari.com/article/10452715>

[Daneshyari.com](https://daneshyari.com)