



Taking a Closer Look at Gestures: Implications for Intervention with Late Talking Children

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When we send a message to another person, we often use tone of voice, eye contact, and gestures to add meaning to our words. Non-verbal communication is an essential component of language development. In fact, if you think about it, children's earliest communication is through the use of their hands rather than their mouths (Goldin-Meadow, 2015).

As speech-language pathologists, we can learn from the work of experts in the field to help us answer the following questions about gesture use in relation to late-talking children:



- What are the most significant milestones in gesture development?
- Do certain gestures predict language development?
- What is the best way to assess gestures?
- Which gestures should be targeted first in intervention?
- How can I help parents support their child's use of gestures?

Typical Gestural Development

In typical development, children begin to use gestures as early as 8 or 9 months of age. The period between 8 – 18 months marks several important milestones when it comes to gesture development:

- **Deictic gestures emerge at approximately 10 months** (before the onset of spoken language) – these gestures involve drawing attention to an object or event in the child's immediate environment. First *showing* emerges (holding up an object), then *giving* (giving an object to someone), and finally *pointing* (toward a specific object, location, or event) (Mastrogriuseppe, Capirci, Cuva & Venuti, 2015).

- **Ritualized requests emerge between 9-13 months** – these requesting gestures include reaching with an open-and-closed grasping motion, putting an adult’s hand on an object, and pulling an adult’s hand towards a desired item.
- **Play schemes develop at 12 months** – these are actions carried out on an object that demonstrate the object’s function (e.g. drinking out of a toy cup). The way a child uses the objects can give insight into a child’s understanding.
- **Some iconic gestures usually develop before a child has acquired 25 words** – also known as “representational” or “symbolic”, iconic gestures illustrate an aspect of the item or action they represent. Blowing to indicate bubbles or flapping one’s arms to represent a bird are examples of iconic gestures.
- **Gestures and spoken words are almost always mutually exclusive between 12 and 18 months** – i.e. children use either a gesture or a word, not a combination of the two
- **Children begin to produce gesture + speech combinations at around 18 months** – children first produce **complementary gestures**, which contain information that complements the information conveyed via speech (e.g. point to a dog and say “dog”). Soon after, children produce **supplementary gestures**, which provide additional information to that conveyed via speech (e.g. pointing to a dog and saying “big”).

(Capone et al, 2004; Goldin-Meadow, 2015)

Having a good sense of these important milestones helps us effectively assess a child’s gestural communication and gives us a window into his cognitive abilities (Capone et al, 2004). Closely examining a child’s gestures can also help us predict when certain language milestones will emerge.

Gestures Predict the Emergence of Specific Language Milestones

Did you know...

- Children who produce more gestures early on have larger expressive vocabularies later in development
- Parents who are encouraged to model gesture-word pairs in daily interactions with their infants have children who use symbols earlier
- A child who points to an object will likely learn the word for that object within 3 months
- Children produce gesture + word combinations before word + word combinations
- The age at which children first produce a complimentary gesture about a noun (e.g. point to a cup and say “cup”) precedes and predicts the onset of determiner + noun combinations in speech (such as “the cup”)

(Goldin-Meadow, 2015; Capone Singleton et al, 2015)

Assessing Children's Gestures

Tracking early gestures allows us to predict when a child will reach certain language milestones. It can also help determine whether a child is at risk for a language delay. For example, if a child expresses few different meanings via gestures, this may indicate that he is at risk for later vocabulary deficits, or if a child produces few gesture + speech combinations, this might signal later delays in sentence construction (Goldin-Meadow, 2015). Evaluating children's early gesture use promotes early identification since a delay in gestures can be detected even before the onset of speech.

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Assessing children's gestures can be tricky. There are some tools that can help us gather information about gestures, including the Rossetti Infant-Toddler Language Scale (Rossetti, 1990), the Communication and Symbolic Behaviour Scales (Wetherby & Prizant, 2002), and the MacArthur Communicative Development Inventories (Fenson, Dale, Reznick, Thal, Bates & Hartung, 1993) (Capone et al, 2004).

Addressing Gestures in Intervention

Which gestures to target

Pairing gestures with speech promotes language development in children with and without language delay (Capone Singleton & Saks, 2015). Iconic gestures (like blowing to represent bubbles) are of particular importance.

Pairing Iconic gestures with speech is helpful because it:

- **builds comprehension** – when you add an iconic gesture to what you are saying, it creates a link between the word you use and the object it represents. This helps illustrate part of the meaning of that word (for example, when you flap your arms and say “bird,” you are showing a child that birds fly). This is helpful for children with language Impairment, who have weak semantic knowledge.
- **is useful for teaching object names** – typically developing children with early vocabularies dominated by object words demonstrate larger vocabularies overall. Therefore, establishing a rich object vocabulary for late talking children is essential.
- **promotes shape-based word learning** – toddlers learned new words for object labels faster with shape gestures (e.g. making one's hands round like the shape of a ball to model “ball”) than gestures that demonstrate the function of the object (a throwing gesture to demonstrate “ball”), pointing to the object or no gesture at all. The children who were exposed to shape gestures were also able to extend the taught object labels to new examples of the object (e.g. new examples of balls) more easily (Capone and McGregor, 2005; Capone Singleton, 2012).

Clinicians working with late-talking children should:

- ensure speech is paired with gestures to make the link between the word and the object it refers to clear
- teach object names

use iconic gestures to highlight words, especially shape gestures

(Capone Singleton et al, 2015)

Getting parents on board with gesture use

Sometimes parents are reluctant to focus on gestures, thinking that the emphasis on nonverbal communication may discourage speech. Here is some information you can use to explain to parents why they should pair their speech with gestures:

- **research has shown that increasing parents' use of gestures paired with speech results in receptive and expressive language gains for their children** – and this has been shown with both typical children and children with expressive language delay
- **gestures provide a child with a means to produce particular meanings with their hands** at a time when it would be difficult to express those meanings by mouth
- **child gestures elicit speech from listeners** – in this way, the listener can provide the spoken word(s) that match the child's meaning, thereby modeling the spoken word for the child

(Capone Singleton & Saks, 2015; Goldin-Meadow, 2015)

Teaching parents to use gestures

While we at The Hanen Centre encourage parents to use and interpret their child's gestures in all Hanen Parent Programs, gestures get the most attention in the Target Word™ Program. That program is specifically for late talkers who have age-appropriate comprehension, play, and turn-taking abilities. Some of the ways gestures are incorporated into the Target Word™ Program include:

- **parents complete the Target Word "Gesture Survey: A look at how I talk with my child"**, to raise their awareness of messages their child sends that include gestures and how they respond to them
- **interpreting** their child's gestures by giving their child the word that his gesture represents (e.g. If the child flaps his wings, the parent could interpret by saying "bird")
- **learning to use gestures paired with speech** – parents learn to copy their child's gesture and add a word, or add a gesture and the matching word, if their child doesn't yet have a gesture to represent the word.
- **learning to highlight new vocabulary with the "TARGET What You Say" strategy** – the "G" in TARGET stands for "Gesture or show". Parents are encouraged to highlight words by gesturing or holding up objects whenever possible.

When parents use these strategies, they encourage their child to gesture, and then those gestures help the child develop spoken language (Goldin-Meadow, 2015).

Summary

Gestures serve many functions for those of us charged with assessing and encouraging children's language development, because they:

- provide information about a child's symbolic and concept development
- aid in determining the risk of a persistent language impairment
- help us predict the emergence of specific language constructions
- guide goal-setting
- scaffold language learning

(Capone et al, 2004)

With a good understanding of gesture development and of the many ways gesture can support young language learners, we should feel well-equipped to support children's language development via gestures. And by working with parents and encouraging them to increase their use of gestures when they interact with their child, we are supporting the child's receptive and expressive language development.

References

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About The Hanen Centre

Founded in 1975, The Hanen Centre is a Canadian not-for-profit charitable organization with a global reach. Its mission is to provide parents, caregivers, early childhood educators and speech-language pathologists with the knowledge and training they need to help young children develop the best possible language, social and literacy skills. This includes children who have or are at risk for language delays, those with developmental challenges such as autism, and those who are developing typically.

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