

Supplemental Material 1 Behavioral Synchrony Coding Scheme

Synchrony in parent-child interactions occurs when the dyad achieves reciprocal, coordinated engagement through shared attention, topic, and affect. Synchrony is evident when children and adults are turn taking through verbal and non-verbal communication around a common activity. Although one member of the dyad may be supporting the interaction, synchrony requires that both participants are attuned to the other. Exchanges during synchrony may be rich in verbal and non-verbal communicative elements or as simple and brief as eye contact and a smile or a gesture with directed gaze.

Summary of codes

Code	Definition	Examples
S: Synchronous	When a three-turn exchange has occurred, start coding Synchrony. (A-C-A or C-A-C)	<i>Parent and child are playing patty cake</i>
	The adult and child achieve reciprocal engagement such that the child's physical, gestural or verbal responses indicate attention to what the adult is attending to and communicating and similarly the adult's actions, gestures, or verbal responses indicate attention to what the child is attending to and communicating.	<i>Child and parent are taking turns rolling a ball back and forth</i>
	Multiple adult or child turns may occur in a row, but within 3 seconds, each partner should be taking a turn.	<i>Dyad is taking turns in building a tower. The parent crashes the tower the child built, and the child watches and laughs</i>
	Synchrony can occur around a negative interaction, if both partners are responsive to one another (parent acknowledges how the child feels while redirecting, child expresses feelings but follows the redirection)	
A: Asynchronous	Conversational turns may overlap, but if both partners are responsive to the other within 3 seconds, synchrony can still occur	
	When more than 3 seconds has passed since 1 or both communication partners have taken a turn	<i>Child is pressing all the buttons on a toy</i>
	The child is unengaged or engaged in object only play such that the parent is not interacting with the toys or the child is not referencing the adult.	<i>Child is throwing a ball against the wall</i>
	Asynchrony may be coded if all other elements of synchrony are achieved but there is considerable mismatch in affect between the adult and child. This mismatch cannot be coded if one partner has a neutral affect. A mismatch is evident when strong negative and positive facial expressions and voice tones are detected.	<i>Child is turning pages in the book and the adult is watching</i> <i>Child is climbing under the table</i> <i>Child is off camera or turned away from the adult</i>