

The Communication Play Protocol

Technical Report 26

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The Communication Play Protocol

1 Purpose

This Technical Report describes the Communication Play Protocol (CPP), a semi-structured observational context that is designed to display how a young child communicates with an adult. The child and his or her parent, or other primary caregiver, are videotaped during the Communication Play so that observations may be subsequently transcribed and/or coded.

The CPP was initially designed to systematically sample a range of communicative functions including requesting, social interacting, commenting, and narrating using two five-minute scenes for each communicative function. It is intended for use with typically developing toddlers from approximately 12 to 30 months of age and with young children with developmental disorders that affect communication development up until approximately 48 months of age. Subsequently, we extended the CPP to systematically sample a range of communication in a number of settings that focus on internal states, graphic images, and narrating the past and the future for use with children from 3½ to 5½ years of age. We continue to use the CPP in our on-going studies of early joint engagement and communication development in typically developing toddlers and young children with other developmental challenges, including an on-going study of auditory joint engagement (see Technical Report 23, The Communication Play Protocol-Auditory; CPP-A).

In addition, we are working with colleagues to continue to adapt the CPP for use in a range of intervention and developmental studies. Our intention, as reflected in our decision to copyright this Technical Report, is to share the CPP and to allow others to adapt it by selecting scenes from it, adding scenes to it, and building upon the material. But this use must be appropriately attributed so that it is clear that you give appropriate credit and you indicate if changes were made. Furthermore, you may not use the material for commercial purposes. Please contact us (ladamson@gsu.edu and/or bakeman@gsu.edu) if you have questions about the CPP and its use.

Appendix F lists additional Technical Reports that describe data capture procedures for the CPP as well as publications from our laboratory that use the CPP and its variants.

2 Background

In most studies of parent-infant interaction, the primary observational condition is “free play” during which a standard set of toys is provided and parents are asked to “play with your infant as you typically do when you have a few minutes to devote to spontaneous play.” Despite the apparent open-endedness of this request, we have found that when we instruct parents in this way, they typically guide the infant toward object-focused play, often framed as familiar games or routines (Adamson & Bakeman, 1984) and punctuated by positive affect (Adamson & Bakeman, 1985). Moreover, we have found that communication patterns between parents and young children differ as a function of

communicative context (e.g., Jones & Adamson, 1987, for a contrast between “free play” and “book-reading”). Thus, we approached our current study of joint attention after infancy concerned that our previous observational protocol opened too narrow a window given our desire to investigate as full a range of communicative functions as possible. Therefore, we decided it was essential to design an observational protocol that specifically varies the communicative aim of an interaction so that we might study the infusion of symbols as a function of variation in communicative function as children communicate with parents.

The literature contains several examples of how communicative contexts may be structured by a friendly adult partner in ways that foster certain communicative functions. For example, situations have been designed that heighten the likelihood of a specific function being expressed (e.g., Marcos & Chanu’s, 1992, probe of requesting; Butterworth & Grover’s, 1990, procedure for eliciting shared referring). In addition, there are tests comprising a series of effective communication probes (e.g. Wetherby and Prizant’s, 1992, Communication and Symbolic Behavior Scales, an instrument that provides a profile of a child’s mastery of communicative skills related to requesting, referring, and social interacting that typically emerge between 8 and 24 months; Seibert and Hogan’s, 1982, Early Social Communication Scales, that has been used to generate observations by Mundy, Sigman, and colleagues).

We found these various protocols to be a helpful source of ideas about how to structure our observation conditions. However, we still needed to formulate an overarching premise that would let us engage the parent as the child’s partner in these conditions. In the protocol we have designed, we use the metaphor of a play to communicate with the parent about our desire that the parent and child interact in a series of different communicative contexts. From the parent’s perspective, this *Communication Play* consists of a series of 5-minute *Interactive Scenes* during which the parent engages with the child to enact a specified *plot* using *props* that we provide. We do not provide a script but we do give the parent a *cue card* at the beginning of each scene that specifies the plot, props, and directorial suggestions. From our perspective, we have designed two interactive scenes for each of four *Communicative Contexts*: social interacting, requesting, commenting, and narrating. In our subsequent study of development of joint engagement during the preschool years, we added three more *Communicative Contexts* that focused on internal states, graphic images, and narrating the past and the future; these are described in Appendix E of this report. In addition, we have modified the CPP to focus on the emergence of auditory joint engagement; a Technical Manual for this modification is available upon request.

3 The Basic Structure of the CPP

Table 1 lists the *Interactive Scenes* used to provide affordances for the four *Communicative Contexts* of the CPP that we are using in our longitudinal study of joint attention after infancy in typical and atypical toddlers. It also lists the Interactive Scenes used in a follow-up version of the CPP (the CPP-F) that we used with older children. The

Protocol is structured so that not all scenes must be used in all sessions and so that additional scenes, such as joint picture book reading, can be added. The following paragraphs provide details related to the CPP as outlined in Table 1; additional information about the CPP-F is provided in Appendix E.

Table 1. *Contexts and Scenes for the Communication Play Protocol*

Protocol	Communicative Context	Interactive Scene
CPP	Social interacting	Turn Taking Music
	Requesting	'Help Me' play with a toy 'I Want' that toy on the shelf
	Commenting	Visit to the 'Art Gallery' What's in 'The Container'
	Narrating	Discussing 'The Past' Discussing 'The Future'
CPP-F (follow-up)	Internal State	Desire Belief
	Narrating	The Past The Future
	Graphic Production	Printing Drawing

The parent is provided a *cue card* before each scene that specifies the *plot* of the scene, gives information about *props*, and *makes directorial suggestions*.

Cue Cards. Written instructions are given to the parent prior to the Play and before each of the scenes on a 5" x 8" index card. Cue cards for a CPP are reproduced in Appendix A. The cue cards are printed prior to the session using a Microsoft mail merge document that is linked to a Microsoft excel spreadsheet. Variable aspects of the text include the child's name and the scene order.

Plots. Plots are provided to establish the basic premise of a scene. Note that the plots are essentially a short title for the scene.

Props. A different set of props is provided for each scene, although the parent is told explicitly that any object in the room may be used during the scene and that not all the props we provide need to be used. The kinds of props in each set, including the number of items and their properties, are described in Appendix B. So that a child will not be exposed to exactly the same props more than once, we have assembled five variants for each set so that a new collection of props is used, in random order, in each of the five

sessions in our current study. In addition to regular (i.e., readily nameable) props, a novel (i.e., nameable using novel words) prop is available as a substitute when needed.

Directorial suggestions. The cue card contains one or more simple suggestions about how the parent might structure the scene. These written suggestions are often discussed briefly prior to the scene.

4 The Stage

The play takes place in a playroom that is designed for videotaping from adjacent rooms. A diagram of the room is provided in Appendix C. We sought to make the room a neutral space that invites interaction but does not, through its affordances, suggest a particular form of interaction. The participants are able to move safely around the entire space (cabinet doors are locked; electrical sockets are covered; furniture has no sharp edges) and to sit either on the carpeted portion of the floor or at a small table. Both large pillows and small chairs are available.

Two one-way mirror observation windows positioned on opposite walls are used to video record the play. (Two additional observation windows that are not used are covered by shades.) Two small microphones are placed near ceiling height on two opposing walls

Two scenes, “I Want” and “The Art Gallery”, have special staging requirements. A high shelf that can accommodate three toys is required for “I Want.” To prevent the child from climbing up to the high shelf, any shelves under it should be covered. The small chairs and table should be placed away from the high shelf so that they do not invite climbing. For the Art Gallery scene, hooks have been placed above the two open observation windows. In addition, two wooden dowels that swing out from the bookcase are used to hang two pictures. When the dowels are in the out position, the pictures are placed so it is possible to video record a frontal view of people looking at the picture.

5 Ordering scenes and sets of props.

The order of scenes within a play and the order of collection of prop sets across sessions are set for each subject before the first session. Ordering information is kept in each subject’s master file. It is obtained from a Microsoft Excel spreadsheet that was set for up to match subjects with a random order imposed on it for scenes, collection of prop sets, and novel words. Scenes are assigned in random order with the constraint that one scene probing each of the four communicative functions (social interacting, requesting, commenting, and narrating) must occur within the first four scenes of the play. Shortly before a subject’s first visit, the subject’s first name is added to the spreadsheet, the various pieces of information are merged (using Microsoft mail merge), and cue cards are printed.

6 Procedures for directing a Communication Play.

The director should strive to be cordial, calm, and professional. It is the director's job to pace the session so that it moves along in a relaxed yet efficient manner. The director needs to establish a friendly, responsive, low-keyed interaction with the participants so that he or she can repeatedly engage with the dyad briefly without disrupting the flow of the Play. The director also needs to carefully time the scenes, to provide the appropriate cue cards and props for each scene, and to answer the parent's questions about specific procedures.

6.1 Preparing for a Play

1. Request that the parent bring a favorite toy to the session.
2. Determine order of scenes, set of props, and location of novel words and novel objects.
3. Prepare personalized cue cards and, if needed, labels for the novel pictures and objects.
4. Organize props for each scene, being certain that consumable items such as balloons and bubbles are available.
5. Place furniture and initial toys in standard positions (see diagram in Appendix D).
6. Set up the video equipment.
7. Label each tape with subject ID and visit number as well as date of visit.

6.2 Before the Play Begins

The Play should not be introduced until the child and parent are clearly comfortable, informed consent is obtained, questions are answered, extraneous objects such as a stroller are stored, the favorite toy from home and questionnaires filled out before the visit are given to the director, and the overarching structure of the visit (that includes activities in addition to the Play) is explained.

The child and parent are welcomed into the playroom as soon as they arrive. Typically the parent remains in the front end of the room where, either standing or seated and talks about informed with the Play's director. Typically the child, after at most a minute's hesitation, moves towards the toys that are placed at the far end of the room. We have found that children typically settle quickly once it is clear that the parent will not leave the room and they can play with all the toys in the room. This prelude period is typically only a few minutes long after the first visit.

Introduce the play by explaining to the parent that our goal is to gain a "snap shot" of how his/her child is currently communicating and that to do this we would like to observe them communicating while doing several different things. Provide the parent with the cue card that briefly described the basic structure of the Play. Explain that we are interested in all forms of communication including gestures, emotional expressions, vocalizations, and language. Briefly explain why we are using the metaphor of a "play" and how we want the parent to be the supporting actor and the child, the star. Encourage the parent to act in any way that will let us observe the child engaging in the

activity that is the focus of the plot of the scene. Tell the adult that we are video recording from the two open windows so that we can see the child from just about every angle. Also tell the parent that we will keep time of all the scenes, and that we will knock on the door each time before entering. Finally, remind the parent that we will take breaks whenever he or she wishes. Ask if there are any questions at this point. Answer all questions fully.

A five minute period of “free play” is videotaped before the formal Play begins. The director introduces this period by telling the adult to spend the next five minutes playing with the child while we prepare for the Play.

Before the first scene of the Play, ask the parent if there are any additional questions. Since this is not the first time the play is discussed, parents rarely have questions at this point. Some parents do ask for clarification about how to act.

Each scene. A scene lasts 5 minutes which is timed from the moment the door closes at the beginning of the scene until the director knocks on the door before reentering the playroom. The timing of the scene should not be modified based on the subjects’ activities, unless the child becomes upset and appears not to calm (see below).

Between the scenes. The period between scenes typically lasts less than two minutes. The ideal is to make the transition quickly, in less than a minute, so that the flow of play remains smooth and without major interruption. The director should make it clear to the parent and child that she is only there briefly to provide a new plot and appropriate props. The director marks the end of a scene by knocking on the door and then entering, cheerfully saying hello to the parent and child. The director should be sure to address the child by name.

The director should accomplish two tasks between scenes. First, new instructions are provided to the parent. The parent is handed the new cue card. At this point a very brief summary (e.g., “During the next scene, you and X will look at the pictures that I will hang around the room.”) is provided and the presence of novel object is noted, when appropriate. Wait until the parent has looked at the cue card before asking if clarification is needed. It is best not to talk too much during the period between scenes. Interact pleasantly with the child and parent, but do not try to engage in an extended or ‘interesting’ conversation.

Second, the director needs to provide props for the scene and remove props and toys from prior scenes as seems appropriate. This can be done while the parent is reading the new cue card. Except for “I Want”, where objects are placed on a high shelf, and “the Art Gallery,” new props are placed on the floor near the child and parent. Be fairly flexible about removing objects from the room. The basic aim is to limit the number of objects in the room to a manageable number without disrupting the flow of the Play. The director and/or parent may help structure the exchange of props by, for example, having the child help take new props from a carrying tray and place old ones onto it. Ask the parent if there are any objects that should be removed. If there is an object that

seems to be competing with the Play, remove it gently but firmly while indicating that there are more toys.

When appropriate, tell the parent how many more scenes are left in the Play. Also assure the parent that it is fine to take a break between scenes.

The director should say goodbye to the child, by name, when leaving the room. If the child does not respond, repeat the goodbye. Then quickly leave, making sure that the door is completely closed.

After the Play. The director should spend sufficient time at the end of the play to be sure that all the parent's questions are answered. The director should also explicitly ask the parent if the Play has given us a good view of the child's current ways of communicating.

The director should assure that props are cleaned if needed after the play session is over, paying special attention to toys that were mouthed or otherwise soiled. The full prop sets are cleaned at least once a year. Child-safe disinfectant wipes may be used.

Interruptions and Minor Modifications. Breaks are rarely needed. However, the parent may indicate that one is required to check on a sibling, change the child's diaper or go to the bathroom, or provide a snack. The director should try to time breaks before a new scene and its accompanying props are provided.

Scenes rarely are ended before 5 minutes has elapsed. However, if the child becomes fully upset, the director should knock on the door and end the scene.

7 Procedures specific to each scene.

Free Play. Place the toys around the far side of the room with the playhouse or farm (the house for odd numbered sessions; the farm for even numbered)) on the right, the Legos in the middle, and the bus and little people to the left. The insert puzzle is placed on the table.

I Want. Three objects are placed on a high shelf so that they occupy approximately equal space. Randomly vary which object goes where. If the parent does not bring a favorite object from home, select an object that the child seems to enjoy in the room. If a novel object is used, place a label with its novel words beneath its location.

The Container. If a novel object is in the container, quickly tell the parent what it looks like, without providing the label.

The Art Gallery. The six pictures are placed around the room at different heights. One is hung over each of the observation windows; one is placed standing on the table; two are hung from the dowels on the bookcase, and one is hung on the bookcase about half way from the floor. The novel picture is always hung over one of the observation windows where a small label with novel words is placed.

8 Videorecording the Play

In our lab, the Play is recorded from 2 cameras positioned on opposing sides of the playroom behind one way mirrors. The session is recorded both on to a computer hard drive and mini DV tapes in the camera. The digital copy is used as a master and the mini DV tapes are kept as backups. Camera personnel use walkie-talkies to assist in coordinating the taping, especially during those times when one or both of the cameras is unable to get both the child and parent in the picture. We use dollies to facilitate camera movement. Because we are taping through one-way mirrors, we strive to minimize being seen through the glass and having the camera reflected onto the glass. Some steps we have found helpful include darkening the rooms from which videotaping is done; dressing personnel in dark clothes, including gloves; and installing non-reflective, black fabric “back-drops.”


Videorecording begins as soon as the child and parent enter the hallway of the laboratory. This allows us to record the child’s first reaction to the room. We continue to record without breaks throughout the entire sessions for two hours, a period that includes various standardized assessments as well as the CPP. After the play session has concluded, the digital video files are synchronized using Mangold’s INTERACT software so they can be viewed simultaneously.

9 List of Appendices

- A. Cue Cards for Communication Play
- B. Props Used During Communication Play
- C. Diagram of Play Room
- D. Novel objects and Novel Words Used During Communication Play
- E. The Communication Play Protocol – Follow up (CPP-F)
- F. Notes and references about the CPP

Appendix A. Cue Cards for Communication Play

On this and the next two pages are examples of the cue cards that we use. These examples are for a girl (she, her) whose name would appear on the cards (instead of <child>). The order of the scenes is randomized across sessions with the constraint that one scene from each of the four communicative functions (social interacting, requesting, commenting, and narrating) occurs within the first four scenes of the play. The card below is given at the start and is for the six-scene version of the CPP; cards for the eight-scene version would say “This play has eight scenes.”



THE COMMUNICATION PLAY

We want to watch <child> communicate with facial expressions, sounds, and gestures. To encourage her to show us some of the ways she communicates with you, we would like you and her to be actors in a communication play.

This play has six scenes. Each lasts about 5 minutes. We will take a brief break between scenes. Before each scene, we will provide you with a cue card that lists the scene’s basic PLOT and some SUGGESTIONS about how you might act to entice <child> to play her role. For some scenes, we will also list on the cue card special PROPS or some special NONSENSE WORDS we would like you to use.

During the break between scenes, we will bring in new PROPS and take out extra toys. Please let us know if there are toys you want us to remove from the room. And, please feel free to use any objects in the room during any of the scenes.

The cards on the next two pages are ordered as in Table 2. The scene numbers on the cards reflect one possible random ordering.

Table 2. *A Random Order of Scenes for a CPP with Four Contexts*

Context		Scenes
Social interacting	Turn Taking (#7)	Music (#3)
Requesting	‘Help Me’ play with a toy (#2)’	I Want’ that toy on the shelf (#8)
Commenting	Visit to the ‘Art Gallery’ (#4)	What’s in ‘The Container’ (#5)
Narrating	Discussing ‘The Past’ (#6)	Discussing ‘The Future’ (#1)



Scene 7 TAKE TURNS

PLOT: <child> and you engage in a back-and-forth game of turn-taking.

SUGGESTIONS: To encourage <child> to communicate, tease her a bit by pausing before you take some of your turns.

One of the toys we would like you to take turns with is an unusual object called a *sevik*. A *sevik* makes the sound *huffaloo-huf*.



Scene 3 THE MUSIC FESTIVAL

PLOT: <child> and you enjoy music together.

SUGGESTIONS: Sing <child>'s favorite song with her. Play a musical instrument and encourage <child> to sing and dance along.



Scene 2 "HELP ME!"

PLOT: <child> needs your help doing something with a toy.

SUGGESTIONS: Although you know what <child> wants, you wait for her to ask. For example, you might blow up a balloon and then, when you have <child>'s attention, let the air suddenly come out. Then wait and see if <child> will ask you to repeat this show. If she doesn't do so after several seconds, repeat the blow-up and release once more.

Or while you are blowing bubbles, you might put the cap back on the bottle and place it down in front of <child>. Wait a moment to see how she reacts.



Scene 8 "I WANT"

PLOT: <child> notices toys located on a shelf too high to reach. You help her get what she wants, but only after you pretend to misunderstand her desires.

PROPS: Three toys on the bookshelf, two that we provide and one of <child>'s favorites. One of the toys we provide has a nonsense name which is printed on a label on the shelf. It is called a *troder* and makes the sound *pleem-pleem*.

SUGGESTIONS: Readily agree to help. But initially act puzzled about which toy. Then make a mistake, offering her another toy. Finally, go ahead and give her the toy. If <child> doesn't pay much heed to the toys, try to direct her attention to them without indicating a specific one. If she still pays no heed, let her play with one of the toys for a minute and then "put it away" on the shelf and see if she asks for help getting it, or one of the other toys, down.



Scene 4
THE ART GALLERY

PLOT: <child> and you enjoy looking at pictures together.

PROPS: Several pictures all around the room.

SUGGESTIONS: Try to attract <child>'s attention to each of the pictures. After looking at all of the pictures, return to <child>'s favorite picture and to the picture that she seemed to like the least.



Scene 5
HIDDEN OBJECTS

PLOT: <child> and you empty the contents of the container object by object. There are five hidden objects. As each object is taken out, you share it for a while before getting another one.

SUGGESTIONS: Try to name each object and play with it for a while before taking out a new object.

Imitate what <child> does with the object. Try to get <child> to imitate you. The odd hidden object is called a *peri*. When it moves around, it goes *quappy quap*.



Scene 6
REMEMBER WHEN....

PLOT: You and <child> communicate about some event in the immediate or distant **past**.

SUGGESTIONS: Events in the immediate past may include your trip to Georgia State or what you and <child> did yesterday. More distant events may include a visit to a relative's or friend's house, a holiday celebration, or a family trip.

Use the puppets or the toy vehicles in the room to act out an event.

Pretend to call someone <child> talks to on the phone and prompt her to talk about the past event.



Scene 1
WHEN WE LEAVE HERE....

PLOT: You and <child> communicate about some event either in the immediate or distant **future**.

SUGGESTIONS: Events in the immediate future may include what you and <child> will do later in the day or tonight. More distant events may include a visit to a relative's or friend's house, a holiday celebration, or a family trip.

Pretend to call someone <child> talks to on the phone and prompt her to talk about a future event.

Appendix B. Props Used During Communication Play

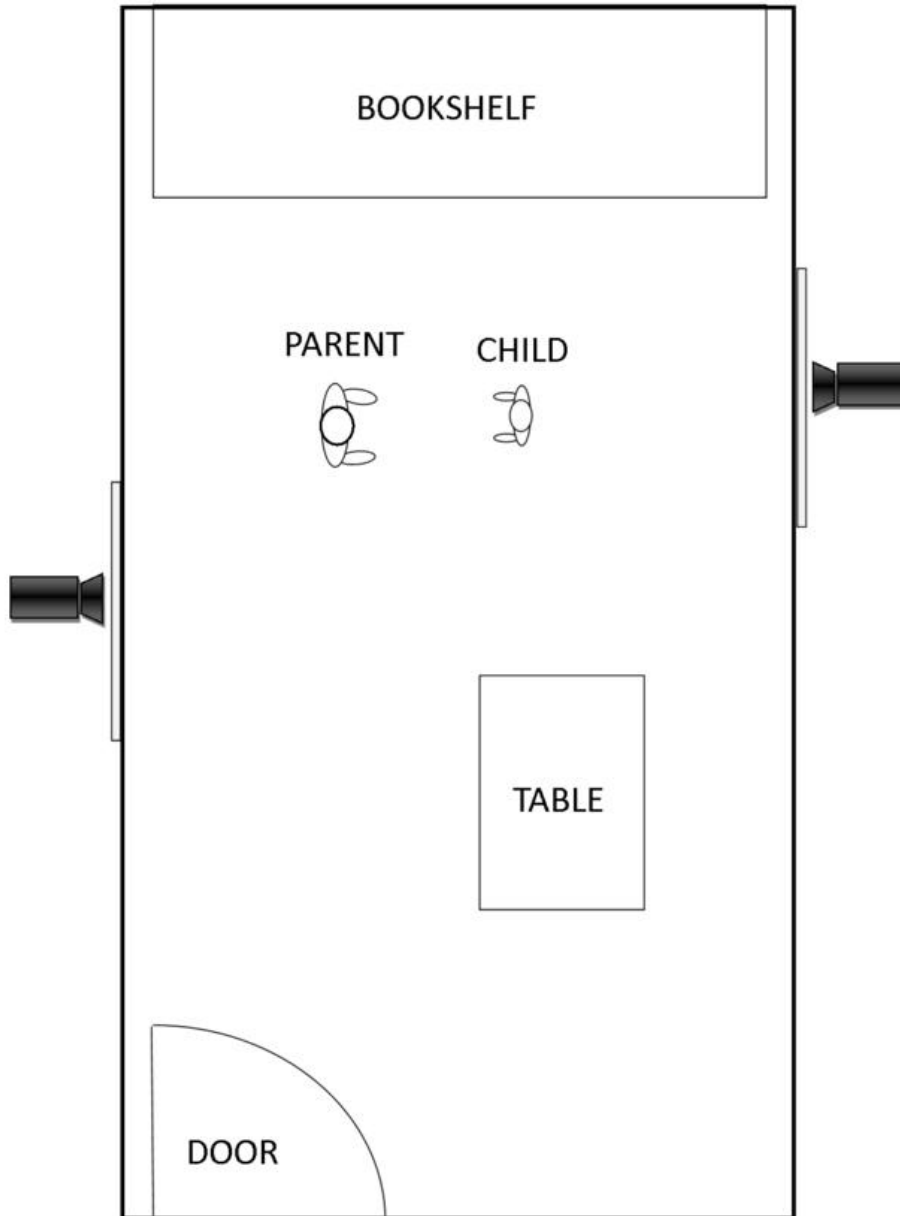
The communication play was repeated five times during our longitudinal study, so we compiled five different versions of the props we used for each scene. These sets are organized into five collections, which are assigned randomly to the five sessions for each child. However, the characteristics of each prop are specified so that each set provides the same affordances. When the protocol specifies that a scene contains a novel object, the novel object used replaces the object in the bin with the same affordances.

Table 3. Props for Different Scenes (CPP)

Scene	Props
Free play	legos, including both blocks, people, animals, and vehicles doll house or farm with accompanying objects school bus with inserting people inset puzzle
Turns	ball or rolling toy stacking toy object that affords repeated action such as sorter
Music	keyboard instrument with song book book that plays music when pressed toy radio
Help Me	bubble blower toy two balloons toy that the child cannot operate by self such as fishing rod
I Want	toy clock plush toy favorite toy brought from home
Art	six framed greeting card size pictures of individual animals, infants, vehicles
Container	five small objects such as stuffed animal, vehicle, pretend food or utensil
Past	4 puppets or dolls that represent man, woman, and two children toy telephone
Future	4 puppets or dolls that represent man, woman, and two children toy telephone

Appendix C. Diagram of Playroom

The playroom is approximately 15' by 10'. An area rug covers most of the floor.



Appendix D. Novel Objects and Novel Words Used During Communication Play

One of the directorial suggestions we have incorporated in some of our studies using the CPP involved novel words. When this is done, the props include a novel object and the cue card provides two novel words, one that is name-like and applies to the object and one that describes how the novel object “goes”. These words were generated with reference to lists of novel words available in the literature and were reviewed by several people who eliminated words that appeared to carry meaning. Pictures of the novel objects are available upon request.

The lists below are alphabetic (Table 4). Each time we introduce a novel object, we pair it with a randomly selected novel word that presents how it “goes” (e.g., this is a lunap. It goes blippity-blip).

Table 4. *Novel Objects and Novel Words*

Novel Objects	Novel Words
bremick	abba-abba
clubob	blippity-blip
felly	brockety-brock
framble	camoosh-camoosh
girfus	craggle-craggle
gobbish	goobly-goo
hampent	huffaloo-huf
hodfern	jib-wib, jib-wib
lunap	loppy-lah
nupa	mooshen-moo
peri	naddle-nad
sevik	ooga-ooga
trober	pleem-pleem
wogger	quappy-quap
zupud	wakety-wak

Appendix E. The Communication Play Protocol – Follow up (CPP-F)

The CPP-F uses the same general procedures as the CPP. Here we describe the procedures specific to each of its 6 scenes.

Free Play. Place the toys around the far side of the room with the play house or farm (vary order randomly across sessions) on the right, a floor puzzle in the middle, and the bus and little people to the left.

Hiding. Three objects are brought into the room. One is placed in the covered box that is located next to the large pillows. One is placed into the center cabinet and the door closed. The third is handed to the child. The experimenter names each object as he/she places it, calling attention to its location. He/she explains that the ones being put away are for later. When the director returns, he/she says that she wants to get the objects and innocently asks the child, where the objects are. The director should pause before orienting toward any one location to see if the child will provide directions. If he or she does, the director should “play along”. If the child does not provide directions, the director should ask, “now where did I put the....?”

Writing and Drawing. The director should indicate that she plans to see what the child and mother have done when he/she returns. Upon return, the director should ask the child to show him/her what was produced and gently probe to encourage the child to display and talk about it.

Past and Future. The director has preselected with the mother before the visit two events that may be discussed in the past scene and two that may be used in the future scene, following procedures used by Robyn Fivush in her studies of early memory. Short phases for these events are presented on the cue card. The director should call the mother’s attention to these phases.

Below and on the next few pages are a sample of the cue cards that might be given to a subject named “Jane”. The order of the scenes is randomized across sessions with the constraint that one scene from each of the three functions (internal states, past/future, and graphic production) occur within the first three scenes of the play.

THE COMMUNICATION PLAY

We want to watch «Name» as he engages in different activities that involve language. Our aim is to see how he typically communicates during these activities, including how he speaks, listens to you, gestures and makes facial expressions.

To encourage him to show us some of the ways he uses language, we would like you and him to be actors in a language play. This play has six scenes, each of which lasts about 5 minutes. We will take brief breaks between scenes.

Before each scene, we will provide you with a cue card that lists the scene’s basic PLOT and some SUGGESTIONS about how you might act to encourage and tempt «Name» to play her role. For some scenes, we will also list on the cue card special PROPS or specify some specific PLOT LINES we would like you to use.

During the break between scenes, we will bring in new PROPS and take out extra toys. Please let us know if there are toys you want us to remove from the room. And, please feel free to use any object in the room during any of the scenes.

Scene «v6belief»: WHERE WILL KIM THINK IT IS?

PLOT: Kim brings three toys into the room. She puts one in the cupboard and one in the container in the corner. She then gives «Name» the third toy to play with. After she leaves, you and «Name» change the location of all three items.

PLOT LINES: Suggest that you and «Name» look at all three objects. Help him retrieve the two toys from their hiding places.

After playing with the objects for a minute or two, suggest to «Name» **“Let’s hide them and see if she can find them.”** Use the same two places that Kim used plus the space behind the pillows.

Ask «Name» which toy should go in which place. **Once the objects are hidden, talk about where he thinks Kim will think that the objects are when she comes back into the room.**

Scene «v6printing»: WRITING

PLOT: «Name» and you write together. You will share the writing with Kim at the end of the scene.

SUGGESTIONS: Let «Name» take the lead in deciding a story to write about. Encourage him to write it down, even if he isn’t really writing yet.

Mix writing with the props that already have printed words.

Have «Name» label pictures or take notes

Scene «v6past»: REMEMBER WHEN...

PLOT: «Name» and you talk about one or two events that took place in the past year.

PLOT LINES: You want to find out what «Name» remembers about two unique events that you shared. During our phone conversation, we selected two events to discuss. One was [Event 1], and the other was [Event 2].

SUGGESTIONS: You may use the telephone, dolls/puppets or any object in the room to help reinstate the events.

Please introduce for discussion only the two events that we agreed upon in advance. However, if «Name» brings up another event in the past, feel free to talk about it.

You may spend the entire scene talking about one event. However, if you finish your discussion of both events before Kim returns, ask if «Name» remembers anything more about the first event you discussed.

Scene «v6future»: PLANS FOR THE FUTURE

PLOT: «Name» and you talk about one or two events that you are planning to do together.

PLOT LINE: You and «Name» plan a future activity. During our phone conversation, we selected two events that you are planning. One of these is [Event 1] & the other is [Event 2].

SUGGESTIONS: You may use the telephone, dolls/puppets or any object in the room to help plan the events.

Please introduce for discussion only the two events that we agreed upon in advance. However, if «Name» brings up another future event, feel free to talk about it.

You may spend the entire scene talking about one event. However, if you finish your discussion of both events before Kim returns, ask «Name» if he has any more plans for the first event you discussed.

Scene «v6drawing»: DRAWING

PLOT: «Name» and you enjoy creating pictures. You will share the pictures with Kim at the end of the scene.

SUGGESTIONS: Encourage «Name» to make a picture to show Kim or someone at home.

You may make drawings of your own, watch «Name» draw, or draw along with him.

Mix drawing with the props that already have pictures.

Scene «v6desire»: DIFFERENT DESIRES

PLOT: «Name» and you discuss why different people have different desires.

PROPS: Several different items of the same type of thing, such as fruit or play activities.

PLOT LINES: Begin by attracting «Name»'s attention to the items and talking about what they each are. Then:

Help «Name» select his favorite. Discuss why he made this choice.

Select an item for yourself. Pick one that you think he would be least likely to want.

Claim that it is your very favorite. Discuss why you each picked different items.

Ask «Name» to guess what another person (Kim, his father, his friend, a doll in the room) might select. Discuss why they might make these choices.

Props Used During Communication Play-Follow-up

The communication play-follow-up is repeated three times during our longitudinal study, so we have three different versions of the props we use for each scene. These sets are organized into three collections, which are assigned randomly to the three sessions for each child. However, the characteristics of each prop are specified so that each set provides the same affordances (see Table 5).

Table 5. Props for Different Scenes (CCP-F)

Scene	Props
Free play	floor puzzle doll house or farm with accompanying objects school bus with inserting people
Desire	set of 7 foods, hats, or pictures of pets
Belief	3 distinct toys that can be hidden in small space and readily named
Past	4 puppets or dolls that represent man, woman, and two children toy telephone
Future	4 puppets or dolls that represent man, woman, and two children toy telephone
Drawing	easel, chalkboard, or magnet board markers or crayons assortment of drawing paper pictures on cards or magnets
Writing	easel, chalkboard, or magnet board colored pencils assortment of writing paper preprinted words on magnets or cards

Appendix F. Notes and References About the CPP

Selecting Scenes

Although we describe 14 scenes for the CPP in this report, not all are needed to address specific research questions. We have used between 3 and 6 scenes for our various studies. Researchers adopting the CPP may wish to use our scenes. Moreover, when observations are to be made in different new contexts such as the home or with children and caregivers who differ substantially in age or culture from our studies, it is important to adapt the scenes. Moreover, new scenes may be added to address new research questions.

Data Capture

Several data capture procedures have been formulated for use with the CPP including coding of the child's engagement states with people, objects, and symbols (Technical Report 9), transcribing mother and child utterances (Technical Report 10), coding maternal utterances (Technical Report 11), coding child communicative acts (Technical Report 12), and rating engagement state, child and caregiver actions, and shared topics (Technical Report 25, the Joint Engagement Rating Inventory, JERI).

Publications Using the CPP (most recent to earlier)

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