Maternal Sensory Signals, Behavior, and Affect Coding Manual

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1. Affect and Behavior Passes

Pass 1 - Affect (Duration) ** ALL codes are to be turned on at the moment when the caregiver shows Affect, even if the emotion is brief. When the experimenter enters the room: use CAN'T TELL codes			
Affect	**Definition**	**Examples**	**Key to Note**
Positive	**<u>Expressing physical affect:</u>** Smiles, joy, warm eye contact, body movement indicating warmth. **<u>Vocal tone:</u>** Warm and happy, sing-song tone. Praises child with energy/warmth/non-robotic (ex: "Good job!")	Happy Vocal Cues: Pitch becomes higher/louder - Laughing, giggling, sing-song humming Happy Facial Cues: Smiling; corners of the mouth are turned up, cheek area rounds. - May be accompanied by wrinkling around eyes. Brows may raise in happy surprise ***Consoling/supporting, kissing child, caressing hair, hugs are positive.**	**Questions naturally elevate pitch. This is not positive.** "mhm" vocalizations. Even if pitch is elevated, it does not mean positive. Pay attention to how **AND** what they are saying **CONTEXT OF INTERACTION IS IMPORTANT**
Neutral	Lacks clear indication of positive or negative affect	Caregiver sits, touches, or holds the child without displaying any particular affect. Common while waiting, while observing the child.	
Negative	Expresses physical or verbal negative affect (distressed, sad, angry, worried).	Criticisms Example: "Why don't you ever clean your room?" Punishing, mocking, laughing at the child. VERY disengaged/boredom. <u>Sad Vocal Cues:</u> Voice lowers, drops off at the end of utterance. <u>Sad Facial Cues:</u> Lip corners pulled down, pouting bottom lip, droopy eyes. <u>Angry Vocal Cues:</u> Loud harsh pitch, contemptuous tone. <u>Angry Facial Cues:</u> Furrowed brows, "hard stare," tightened lips.	Tone of voice can help determine whether a statement can be considered positive or negative. - Example: Voice exasperated, irritated, etc (negative) - Example: Monotone, no elevated pitch, etc (neutral) If the child is doing something "dangerous" (ex: might bump head) and caregiver says "be careful" **THIS IS NOT CONSIDERED WORRY.** **CONTEXT OF INTERACTION IS IMPORTANT**

		Worry Vocal Cues: Strained and shaky voice (sound fearful). Worry Facial Cues: Furrowed brows, wide eyes, retracted lips.	

Pass 2 - Autonomy & Intrusive Behaviors (Duration) ** ALL codes are to be turned on at the moment when the caregiver exhibits signs of these behaviors. When the experimenter enters the room: use CAN'T TELL codes			
Affect	**Definition**	**Examples**	**Key to Note**
Autonomy Support	Caregiver provides help and support when needed, gives useful hints Encouragement & teaching Positive constructive strategies to regulate child behavior or affect.	Instructions, teaching about skills and emotions, redirecting attention to appropriate behavior, distracting from upsetting stimuli: - Example: pointing to puzzle board and asking, "What do you think goes here?" Active listening and eye contact Participating when child asks: - Example: holding a baby toy for the child so they can interact with it - Encouraging "mhm" not just watching Facilitating toy use: - Example: Actively adjusting puzzle position for better engagement. - Example: Child asks for help pushing puzzle piece.	**2-second rule:** If caregiver continues to display Autonomy Support within 2 seconds, leave code EXCEPT if they switch to Intrusiveness. - **Applies when finishing a sentence, then start counting.** Attentively waiting for an answer (interacting/looking at the child) is **AS**. Looking elsewhere is **Neither**. Passively holding the puzzle is **NOT AS.** Answering basic questions about the experimenter: "When is he coming back?" is **NOT AS.** Complex questions about the experimenter: "Did Alex felt bad when he fell down?" is **AS**.
Neither	Behaviors not specifically aimed at controlling or modifying child behavior or affect. Not providing specific structure, or acknowledging on-task behavior.	Monitoring child, waiting to be asked for help or to be done with activity. - Example: watching child the complete puzzle. - Example: pushing puzzle piece while child is doing something else. **Brief verbalizations: "yeah" "uh huh" "mkay"** Repeating what the child is saying is NEITHER.	Observe context to determine if "mhm" is AS or if it is an "automatic" response to observation it is NEITHER. Extra comments **(not needed hints)**: code **NEITHER**. Commenting on child's action is not AS unless the child responds back then code AS. **When the code could go either way, code NEITHER.**

Intrusive	Anything that disrupts or modifies the child's autonomous behavior. Physical aggression, interrupting/leading and aggressive play. Verbal: Caregiver interrupts child, not respecting natural break of conversation. Caregiver frequently sets the pace of the interaction, asking questions, and making the activity about them.	Pushing the toy in the child's face/hand, throwing or taking the toy, moving the hand away from the toy. - Example: interrupting attempt of the child to squish puzzle piece down. Reprimands come out of nowhere (not in response to child behavior). Adamantly wanting a response (watch tone of voice), repetitively asking questions (or in different forms) about the activity. - Asking once is not Intrusive. *Intrusive ends when the child engages again. - Example: answers questions, or engages in conversation	2-second rule: if caregiver continues displaying Intrusiveness within 2 seconds, leave code on EXCEPT if they switch to Autonomy Support. - Applies when finishing a sentence, then start counting. Use NEITHER if on the fence and have considered context. Pointing without wanting to change a child's action is not Intrusive. Questions about the activity when the child is not paying attention are NOT Intrusive unless repetitive AND disturbing the child (watch their reaction). Negative does not mean Intrusiveness.

Note: when the caregiver responds to appropriate, positive, or compliant behavior by the child either verbally (e.g. "good job/hooray/awesome/that"s right/you"re smart/ way to go/all right") or nonverbally (e.g. giving a high-five, smiling/nodding, or pat on the back) code as positive affect AND autonomy support.

Question Types	● Regarding the child's action is AS, if it is a comment in the form of an observation, then it is NEITHER. Code AS for question, after question code NEITHER. ● Trying to correct the child when making a mistake is AS then NEITHER (depends if engages with answer or not). Code NEITHER after question. ● Related to activity and seek to be responded (leaning in, child attempts to respond) is AS without breaking into NEITHER until end of interaction. ● Unrelated to child (changing subject) and insistent is INTRUSIVE then NEITHER (depends on caregiver reaction, if continues to ask it is INTRUSIVE).

2. Getting started with BORIS

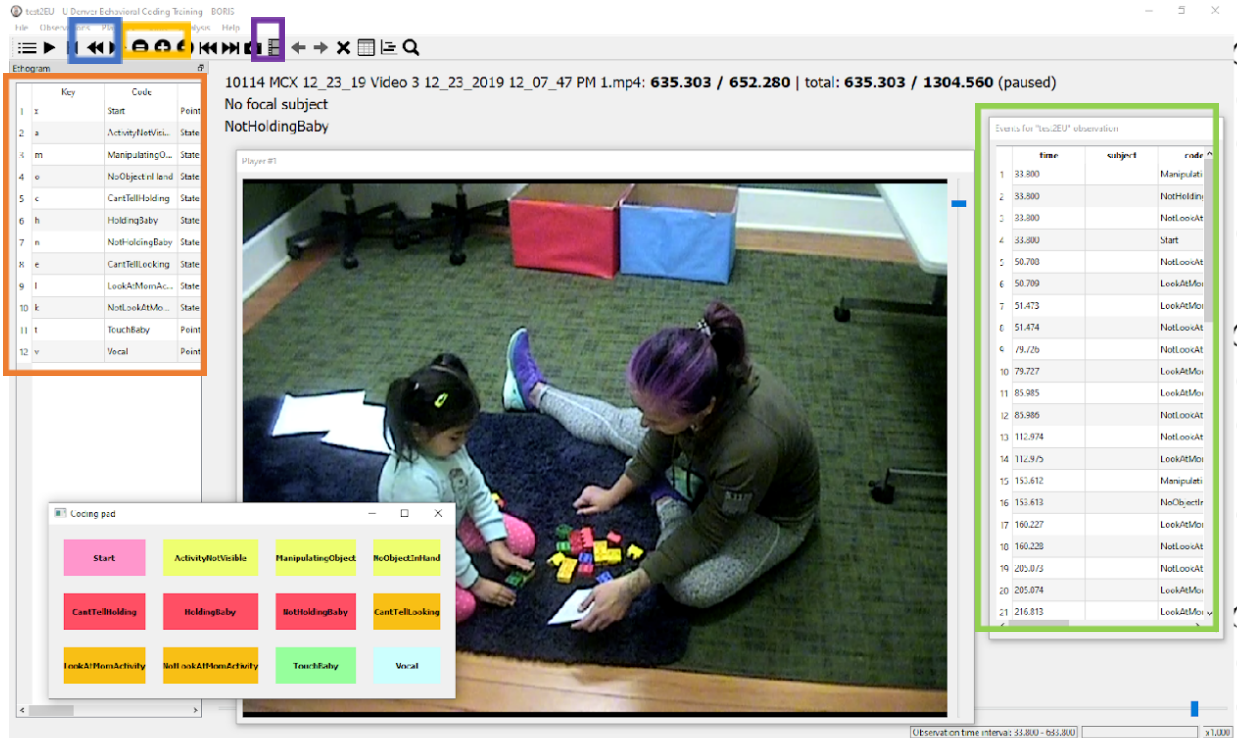
Disclaimer: This coding project used BORIS version 7.13. A new version (8.20) is already available for download here.

Start by checking Preferences

1. Default project time format = seconds
2. Fast forward/backward speed (seconds) = 1

3. Check “Adapt the fast/forward jump to playback speed”
4. Time offset for video/audio reposition (seconds) = 0
5. Playback speed step value = 0.2 (changes in 0.2 increments)
6. Auto-save project every (minutes) = 1
7. Click OK

BORIS: quick tour



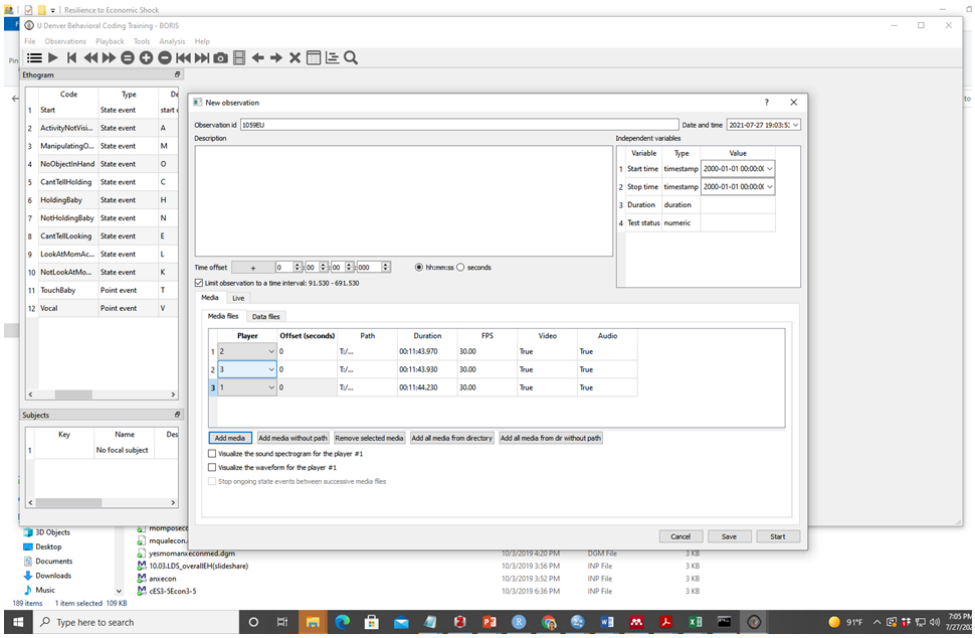
1. Video playback speed buttons
    a. Space bar for play/pause
    b. Jump forward/backward: 1 sec on normal speed
2. Ethogram: Coding scheme codes. Click on tools > coding pad.
3. Running record of codes: Running list of the codes you have marked. The codes show up in order, once finished it will show the complete list (and timings).
4. Delete event: Select the code, right click and press.
5. Switching angles: If you want to change the angle of the video, click on the video you want to see in the smaller sub-panel.
6. Changing video viewer size: drag down video by a corner, or side panel.
7. Video controls: Play, pause, slow down, or speed up the video.
    a. Key: use spacebar for play/pause & 1sec backward button to move slowly.
8. Precision toggle buttons: Frame-by-frame analysis can be done for all codes except vocal codes. Click on the film strip. Hit the spacebar to pause and then you can move in ~.03 seconds by pressing the arrow buttons.

How to code a video (observation) full protocol

1. Open BORIS

2. Open a project – ask the trainer which one
3. Click on observations
4. Click Create a new observation
    - Name the observation using the participant ID followed by your 2 initials capitalized (i.e. 1001 KM). Important.
5. Import the video that you would like to code.
    - Where to find videos: use Synology > Unpredictability Video Coding Project > Montreal Videos > Navigate to video ID (choose all videos)
        - If these instructions are not applicable, simply search within the files on your computer the intended video ID
    - Import all video angles.

Here's a screenshot. In "player", you have to assign orders depending on the length of the videos. The longest video ALWAYS should be player 1, followed by the second-longest that gets player 2, etc. If two videos have the same length, it doesn't matter which one goes first.



6. If you are the first person to code the video, you'll have to trim the video. In Boris, toggle to the point in the video when the researcher closes the door OR if video started when the researcher is already gone, you can simply start the video at 0.00
    a) Write down the time point that you started the video in the trimming log
    b) Add 600/300 seconds. This is your end time. Write this down in the log.
    c) In edit observation, check "Limit observation to a time interval", and start observations at start second and stop observation at start second + 600 (or 300 seconds, depending on project).
    d) Press Ok

7. Before you begin coding, fill out the coders' log (for tracking)
8. Now you are ready to code the video from the beginning.

*** In your codes, click Start (or x in your keyboard) to CODE IN THE LOG BELOW THE VIDEO VIEWER.***

This is the safest way to start at the beginning of the video. Other methods may cause technical issues. Do not alter or delete any of the default 0.00 codes, unless you need to change the state (on/off) of the code itself. Start your coding passes.
Remember to complete post-coding steps when finished coding.

Post-coding steps

9. Save and check your work
    - Scroll through your record of codes – ensure no red errors, blank timepoints, or comments. Delete any you find. Close all your codes. When you hear the "beep", check on all codes that may still be open (eg. Positive affect, Autonomy support) and stop them by clicking the same ones. Your last three codes should say stop for each pass.

10. When finished coding – finish the coding log entry you started earlier. Please fill out the whole row. This is important to ensure efficient and complete data export/ analysis!

11. To export your codes > you must export your codes, as reliability can only be calculated using CSV files.
    - a) Press observations > Export events > aggregated events.
    - b) Choose your observation, click OK
    - c) Select all behaviors.
    - d) Save the file to Unpredictability Video Coding Project > U Denver exported csv files > ID#Initials (eg 1059EU). Save as type: CSV.
    - e) Done

3. Tips

Technical tips

1. Always use the BORIS project with your initials. That way we avoid any sort of double use (thus losing data).

2. Right-click, and press filter events to code each pass separately

3. If need to shift time by less than a second: right-click on event, click on shift time of selected event, enter +/- 0.xxx seconds (useful for vocal or touch). Control F for +1s, control B for -1s, spacebar for inching, frame-by-frame may be useful for codes (behavior: Autonomy Support, Intrusiveness)

4. Save the project as .boris file with name to ensure codes do not get deleted!!
    - 2 people cannot use the same .boris project file at the same time, and codes will get deleted
    - Also check if Synology is online (green circle) so the data syncs

5. Make sure all codes are paired at the end [the last 3 codes should be a STOP code for each state pass]

6. Check for gaps at the end of each video: for the entire 600s, there should be 3 state codes at all times

7. Each time you finish a pass, save your work (file > Save Project), just in case. Preferences show it is in Autosave, but you never know. From time to time, open the finder window and check that the Synology drive (to your left) is green and not red.

8. After you finish a pass, you can also right-click on the event codes (where you have all your codes), click on check events, and check that all state codes are paired. If not, filter for the pass that is not paired and check your work. It is probable that some code got into there. Find where the problem is and fix it either by deleting one event, or changing the time. In my case, I usually find that one code is "leftover" right in the middle. Once you find the mistake and delete it, check on events and see whether problems still continue. Do this every time you finish a pass. Today, for example, I fixed one, continued coding, and then had to fix it again for some reason.

9. At the end, do the checks again. Make sure there are no unpaired codes and gaps without codes. To check for big gaps, go to

- Analysis > Plot > Plot events
- Select the observation > ok
- Select one pass at a time and limit observation to the start to start + 600. (So in the case of 10114 starts at 33, finishes at 633, approx).
- A pretty plot will appear. You can check for big gaps there.

General tips

- Have the coding manual open while coding - it is easy to miss small details and exceptions when going through each pass

- 2-second rule: only applies to turning codes OFF if activity stops for AT LEAST 2 seconds
    - turn code ON even if the activity happens for a very brief moment (less than 2 seconds)
        - ex. The caregiver adjusts the puzzle for the child

- Code for INTENTIONAL activities only
    - ex of intentional activities: providing encouragement, helping when child asks, interrupting child
    - ex of non-intentional activities: the caregiver is resting hand on puzzle, the caregiver's hand accidentally bumps into child when she is clearly reaching for a toy

- 'Can't tell' codes are rarely used, use plausibility rule for most uncertain events (only use can't tell code when activity is completely out of frame)

Coding tips

- Precise timing: you must start and stop codes at the EXACT moment that a relevant event occurs (for example, make sure that you turn on the code the exact moment that the caregiver's displays positive affect, etc). Use the precision toggle buttons so your codes can be exact! One idea is to play the video at a slow speed, pause it when you notice a relevant event, and then use the precision toggle buttons to assign the code at the exact time.

- Double checking a code: If you want to check that your code is accurately timed, you can pause the video and then click on the code in the event list- it will replay for you, so you can confirm whether you put the code in the right place.

- Coding outside the boundaries: You will hear a loud "beep" if you are trying to code outside the boundaries. You can still add codes, but these will all load into the end of the boundary (i.e. beyond 600 seconds).

- Picking up where you left off: If you are unable to finish a video in one sitting, you can always finish later. Simply save it and then open it again and pick up where you left off.

- Comments: If you are unsure of a code, make a note of it (not on the observer software – this will cause problems) simply write down the timestamp and the type of code and discuss it with your trainer.

- "Not sure" codes: For all continuous codes, you have the option to code a "can not tell" option (I.e. can't tell if you cannot see the caregiver's face). The rule for this is – to try to code an on/off code if you can (i.e. if half of the caregiver's face is briefly obscured but you are reasonably sure they are displaying a slight smile). If it is truly impossible (i.e. the caregiver and baby are completely out of frame), then you may code a "can't tell" code.

- Deleting events completely: When you've made a mistake and you want to delete a code, ensure that you delete it completely and that it disappears from the running record of codes below the video – if you don't, this will cause problems with analysis.

Time-saving tips

Behavior and Affect coding can be time-consuming. These tips can help you code more efficiently!

1. Right setup: The key is to ensure you use one hand to stop/ start the video, and the other hand to click around (to toggle video and assign codes)

2. General coding workflow - Remember to SIT:
    - Stop play the video, when you encounter the cue you're looking for (i.e. providing positive constructive strategies), stop the video.
    - Inch While video is paused, use the reverse (one second) button and then play the video slowly using the space bar button (i.e. the moment the caregiver's hand touches the toy)
    - Tag Once you've toggled to the right part of the video, tag the code. Resume video and repeat.

- Listen & watch for affect and behavior codes. Once you have tagged the code, resume the video and double check you have assigned the code in the right place (if you have, the caregiver will display the behavior right when you resume playing the video).

3. How to do Affect and Behavior codes: As described above, play the video at regular speed and stop the video as soon as you hear affect or see a behavior. Reaction time is usually ~.200 ms later. You can either go back (reverse) and click the code and/or you can manually change the timing by using right-click> shift time > -0.2.

4. 2 Second/ 2 Mississippi rule: Whenever you turn a code off a code (i.e. caregiver is neutral), count "1 Mississippi, 2 Mississippi". If the affect or behavior is displayed when you are still counting (i.e. caregiver displays a positive tone), the 2-second rule probably applies. If the code turns 'on' again within 2 seconds, delete the "off" code and simply resume the video and keep going!

4. Appendix: Overview of Sensory Signals

Overview: Sensory Signals

Background

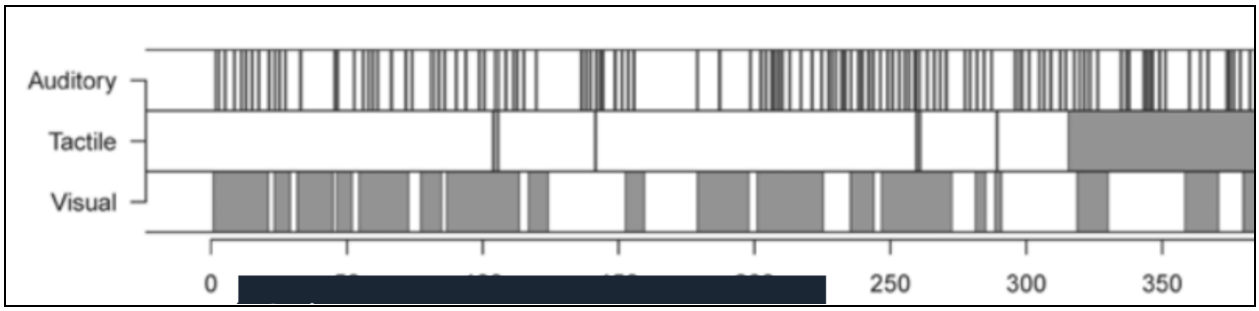
Maternal sensory signals to her infant are characterized in the context of a free-play interaction. Interactions are recorded during study visits and then coded. Tactile, auditory, and visual maternal signals to the infant are coded continuously in real time. Codes are used to calculate an entropy rate for each the caregiver. Entropy rate is a measure of the predictability of maternal sensory signals.

Coding Overview. The caregiver-child interaction video is coded in four passes (the coder watches the video four times and focuses on a specific code/ sensory aspect of the video in each pass).

Pass 1 – the caregiver touching/holding objects (state)
Pass 2 – baby looking at the caregiver (state)
Pass 3 – the caregiver holding child (state) and touch child (event)
Pass 4 – the caregiver's vocalizations (event)

Code types. There are two types of codes used in this scheme: events and states.

- Event: An event is a behavior that occurs instantaneously, at a single point in time (i.e. it lasts just one moment rather than spanning seconds or minutes). For example, a vocalization, (i.e. a single utterance) is considered an event.
- States: States are mutually exclusive continuous behaviors (can be turned on/off) with a duration (i.e. they span a number of seconds/ minutes). For example, at any point in the interaction, the caregiver can either be holding the child (on) or NOT holding the child (off).



5. Appendix: Coding Scheme Sensory Signals: Directions for Passess

Detailed Coding Scheme - Passes

Pass 1 – Object manipulation + pointing		
CODE	DEFINITION / VERSIONS OF CODE	EXAMPLES/ APPLICATIONS
Manipulating object	Manipulating object: Turn on this code at the moment the caregiver's hand makes intentional contact with an object. Must turn on even if the contact is very brief. No Object in Hand: Turn this code on at the moment the caregiver's hand leaves the object (without touching another object for at least 2 seconds; if the caregiver touches another object within 2 seconds of her hand leaving the first object, leave code set to "manipulating object") Activity not visible – turn on during times when the caregiver's hand/ touching activity is out of frame (i.e. the caregiver leaves camera frame)	Examples of manipulating an object • Shaking a rattle • Pressing buttons on toys • Touching objects to count • Adjusting the boppy • Holding a coffee cup • Holding the baby bottle. Does NOT count as manipulating an object • Non- intentional contact with an object (i.e. the caregiver's hand is resting passively on a table, the caregiver is putting hand on mat to support herself)
Point [we do not code this anymore]	Turn on this code when the caregiver points to an object with the intention of directing the child's attention to that object but DOES NOT touch it.	Examples • Pointing to a toy • Pointing to the child's shirt

Pass 2 – Child looking at the caregiver/ the caregiver's activity		
CODE	DEFINITION / VERSIONS OF CODE	EXAMPLES/ APPLICATIONS
Look at the caregiver activity	Look at the caregiver activity- Turn on at the moment the child looks at the caregiver, the object the caregiver is holding or playing with, or an activity the caregiver is engaging in. Even if the look is very brief. It does not matter who initiated the look or the context.	Examples of looking at the caregiver activity • Looking at toy the caregiver is holding • Looking at caregiver's face • Looking at the caregiver's hand while it is rummaging in the toy bin • Baby is looking at/ playing with a toy and then the caregiver also starts playing with it.

	Not look at the caregiver activity – Turn on at the moment the child stops looking at the caregiver or the caregiver's activity for at least 2 seconds. Can't Tell Looking – turn on during times that the child is out of frame or you can not tell if the gaze is directed at the caregiver/ her activity.	Does not count as looking at the caregiver's activity: • The caregiver and baby are playing with/ touching the same object, but it is obvious to you that they are not attending to the same thing/ same activity (i.e. the caregiver and baby are playing with car toy but looking at / playing with complete opposite ends of the toy) Can't tell? • Ask: is it plausible that the baby is looking at the caregiver right now? If so, code it.

Pass 3 – The caregiver holding + touching child		
CODE	DEFINITION / VERSIONS OF CODE	EXAMPLES/ APPLICATIONS
Holding Baby	Holding Baby – Turn on at the moment when the caregiver begins to support the child's weight. Code even if the hold is very brief. Not holding baby - Turn on when the caregiver stops supporting the child's weight. Can't tell holding – turn this on during times that it is impossible to see whether or not the caregiver is holding the baby (I.e. the caregiver and child are out of frame)	Examples of holding baby • Picking up/ carrying child (no need to code additional touch unless there is a noticeably separate touch) • Securing child while sitting on lap • Restraining child • Physically stopping child from crawling/ walking • Non-traditional holds: moving baby's position laterally on mat, sliding baby on floor to bring closer Does NOT count as holding baby • Child is sitting on lap without support Not sure? • Ask: if the caregiver were to remove her hands right now, would the child remain sitting/standing upright on their own? If NO it's a hold • If you were to photoshop out the caregiver, would it look like the baby is levitating? If YES it's a hold
Touch	Touch (event): Code when the caregiver makes tactile contact with the child (other than holding). One touch should be coded for each distinct instance of contact (when the caregiver makes contact and then lifts away hand).	Examples of touch • Running fingers through child's hair (each stroke/ pat should be coded as a distinct instance of contact) • Fixing child's clothes • Running a toy car across child's leg • Kissing child • Adjusting child's position (as long as child weight is not being supported/ shifted). Does not count as touch • When child touches the caregiver

Pass 4 – Vocalizations		
CODE	DEFINITION / VERSIONS OF CODE	EXAMPLES/ APPLICATIONS
Vocal	Code for each intentional distinct utterance or sound effect by the caregiver. Code a new vocal each time there is a break in a sentence, song, phrase, etc).	Examples of vocal ● Speaking, singing ● Laughing ● Sound effects (gasp) (yay!) (wow!) (zoom) Does NOT count as vocal ● Non-intentional sounds (yawning, sneezing, coughing)

Additional guidance for precise coding

Vocal- additional guidance
Here is how to code common instances of vocalizations

* = a new vocal event code

"*This is a giraffe! * They're at the zoo!"
"*Oh! * Look at this!"
"*Gasp * Do you like that?"
"*Twinkle twinkle little star * how I wonder what you are… *" [new code every time there is a change in melody]
"*A B C D * E F G * H I J K * L M N O P * Q R S * T U V * W X Y and Z"
"* Beep * beep * beep!"
Each kissing noise counts as its own utterance

Coding tips

- Precise timing: you must start and stop codes at the EXACT moment that a relevant event occurs (for example, if you are coding *holding object,* make sure that you turn on the code the exact moment that the caregiver's fingers make contact with an object). Use the precision toggle buttons so your codes can be exact! One idea is to play the video at slow speed, pause it when you notice a relevant event, and then use the precision toggle buttons to assign the code at the exact time.
- Double checking a code: If you want to check that your code is accurately timed, you can pause the video and then click on the code in the event list- it will replay for you, so you can confirm whether you put the code in the right place.
- Coding outside the boundaries: You will hear a loud "beep" if you are trying to code outside the boundaries. You can still add codes, but these will all load into the end of the boundary (i.e. beyond 600 seconds).
- Picking up where you left off: If you cannot finish a video in one sitting, you can always finish later. Simply save it and then open it again and pick up where you left off.
- Comments: If you are unsure of a code, make a note of it (not on the observer software – this will cause problems) simply write down the timestamp and the type of code and discuss it with your trainer.

- "Not sure" codes: For all continuous codes, you have the option to code a "can not tell" option (I.e. can't tell if holding). The rule for this is – try to code an on/off code if you can (i.e. if mom's hand briefly is obscured by the boppy but you are reasonably sure she picked up a toy). If it is truly impossible (i.e. mom and baby are completely out of frame), then you may code a "not sure" code.
- Deleting events completely: When you've made a mistake and you want to delete a code, ensure that you delete it completely and that it disappears from the running record of codes below the video – if you don't, this will cause problems with analysis. With duration codes (Looking, manipulating, holding), make sure you erase all the codes that were automatically created.

Specific examples with Final Decisions

Pass 1: Manipulating object

- Only code for when mom is using HANDS to manipulate objects
    - (ex. If mom kicks a toy with her foot, do NOT code)
- If mom moves child with cushion (she makes tactile contact with object, rather than child), count as manipulating object
    - Cushion ONLY counts as manipulating object, NOT hold, even if baby's weight shifts
- If it seems plausible that the mom is manipulating an object, even if it is out of frame, turn on code
- Using tissue to blow CHILD'S nose counts as manipulating object but NOT if the tissue is for blowing MOM'S nose
- Code if mom touches or moves an object that is external (ex. Tissue, phone, cup, chair)
    - Exceptions:
        - do NOT code when mom is opening the door to leave the room or communicate with experimenter
        - If mom is passively holding something without obvious intent, like a tissue, for the majority of or entire video, do NOT code
        - Do NOT code if mom touches CHILD'S clothes, this counts as TOUCH, NOT MANIPULATING
- Do NOT code if mom touches an extension of her own body (ex. Mom's clothes, hair, shoes)
- A specific example: If mom takes the child's boots off the child's feet then carries them away... code touch when she touches each boot WHEN THE CHILD'S FOOT/FEET ARE STILL INSIDE THE BOOT but code manipulating object the whole time she's touching the boot, WHETHER OR WHETHER NOT the child's foot is inside the boot

Pass 2: Baby looking

- If it is PLAUSIBLE that the child is looking at mom, turn on code for looking
    - If it's hard to tell if the child is looking at what they're doing or what the mom is doing but both their hands are super close together/doing the similar task, (ie. trying to push the puzzle piece into the board), assume the child is looking at the mom and TURN ON the code.
- If mom and child are CLEARLY looking at two separate parts of the same toy (ex. a large toy or different parts of the puzzle), do NOT turn on code for looking
- If child is looking at a toy and then the mom takes it, counts as looking

- Child does not necessarily have to be looking at mom's face/making eye contact with mom, can be looking at any part of mom or activity she is doing (ex. looking at mom's arm, looking at toy that mom is playing with)
- If child and caregiver are looking at the same object, but the caregiver is NOT touching the object, it does NOT count as looking
- Child looking at mom through mirror counts as looking

Pass 3: Touch and hold

- Giving toy to baby does NOT count as touch, even if the caregiver and baby are touching the same toy (touch is passive)
- If the caregiver grabs toy from baby and touches baby while grabbing toy, then it counts (intrusive presents intentionality)
- Do not code "intrusive touch" (the caregiver is intending to touch toy, not child)
    - If the caregiver grabs child's hand to help move toy, code as touch
- Every separate/distinct tactile contact counts as a separate touch, even if they happen very fast (ex. the caregiver taps child very fast, or runs toy on child's leg multiple times in a row)
- If the caregiver is holding child (supporting weight), and touches child separately, code the touches as separate events simultaneously with the holding state code
- Touch: Code touch when caregiver touches the child with caregiver's hand in the puppet, either directly to the child or to the child's puppet (hand IN the puppet). Make sure it is intentional and that the caregiver is initiating, not the child. This is specific to puppets (because the hand is inside the puppet). Any other toy on toy should not count.
- Tracing hand with a marker counts as touch every time the marker touches the child's hand

Pass 4: Vocals

- Code breaks where we hear them (AUDIBLE PAUSES), rather than logical breaks in a sentence/phrase
- Gasps between laughs count as a distinct vocal code
- Changes in intonation in sentences/ singing should be coded as separate vocal codes
- Laughs that do not have a distinct break "hahahah" count as just 1 vocal
- If no distinct breaks in mumbling phrases, count as 1 code
- If you cannot hear it, do NOT code (ex. You see mom open her mouth in a gasping motion, but hear no sound)
- May be helpful to count the occurences/ memorize the pattern if there is a sequence of fast of vocals, then go back and code as it happens since our perception may be delayed
- Listen for question marks at the end of a sentence
    - ex. "You want that toy, yea" vs "You want that toy, yea?" at the end of the sentence
    - yea = 1 vocal code
    - yea? = 2 vocal codes
- Differentiate between an exclamation vs. comma in a sentence
    - ex. "You want that toy, yea" vs. "You want that toy! Yea."
    - comma = 1 code
    - exclamation = 2 codes
- If there is absolutely no audible break within a stutter, or after "okay?"- keep it as 1 code
- Blowing counts as vocal if it's audible (for example: blowing a fan in front of the child)

Miscellaneous

- If out of frame for less than 2 secs but by 2-second mark in a frame or beforehand and doing the activity again then DON'T break the code
- If experimenter comes into the room before 300s is up:
    - Turn on Activity not visible and Can't tell baby looking till the end
    - Keep Not holding till the end
    - Do not code any Touch or Vocal