Several categories which were developed to code the social interactions of mothers and children in a twenty minute free play laboratory situation are described. The categories were divided into primary modes, which were subdivided into smaller units of behavior. Frequency categories within a mode and duration categories across modes may usually be scored simultaneously. Mother and child are coded separately. The categories were established to be coded from videotape recording onto an electronic digital recording system. The system used was Electro General's Datamyte. The recorded codes must be processed through a series of three Datamyte programs. The first "cleans" the data. The second merges the records of mother and child. The third program provides a frequency count of the duration and frequency of all codes. The method for using the Datamyte is explained as are very specific coding directions. The categories included Play With Toy, Books Initiation of Activity, and Modification of Behavior. (Author/DWH)
Reciprocal Control
Categories for Scoring
Social Interaction: 36 and 60 month
by Dale Farran and Ron Haskins
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The attached set of categories were developed to code the social interactions of mothers and children in a 20 minute free play laboratory situation. The categories are divided into primary "modes" with each mode being divided into smaller units of behavior. Within each mode the duration categories are mutually exclusive. Frequency categories within a mode and duration categories across modes (except where noted) may be scored simultaneously. Mother and child are coded separately. The categories were established to be coded from videotapes recording onto an electronic digital recording system (Electro general's datamyte). Following coding the recorded codes must be processed through a series of datamyte programs. The first cleans the data. The second merges the records of mother and child (the program automatically adds the prefix "1" to all child codes and "0" to all mother codes). The third program provides a frequency count of the duration and frequency of all codes. For further information on the datamyte software, see Stein, J. Datamyte System Documentation, Frank Porter Graham Center, 1977.
At the beginning of each Mother-Child Interaction Session, an entering code is punched into the Datamyte:

- Date (6 digits)
- Study # (3 digits)
- Study Part # (1 digit)
- Looking-1
- MCX-2
- Mother or child Number (1 digit)
- Mother-0
- Child-1
- Child's ID (3 digits)
- Mother or child Number (1 digit)
- Session Number (1 digit)
- Observers # (2 digits)
- Datamyte # (1 digit)

For instance: 0124780182094101203. Do not punch ENTER.

Then as the Session begins, Punch SKIP SKIP SKIP SKIP ENTER.

After 20 minutes, to end the Session, punch 99 ENTER.

If a session must be interrupted, punch a 97 ENTER. Nothing should be coded then until the Session begins again. Immediately, punch a 98 ENTER and then enter what the mother and child are doing at that time, as though it were the beginning of the Session. This MUST be done, because 97 and 98 terminate all codes.
PLAY WITH TOY

1-1 Non-directed play with toys. Child or mother is touching or holding toy or object (which is not a book), but is not engaged in purposeful play. (He may be walking with toy in hand; getting toys out of toy box, preparing to play with toys, e.g. setting crayons on table). A new 11 is not scored if subject picks up part of the same toy - the teacup and then the saucer, for example. 11 terminates "3" and other "1" codes.

Conventions

a. Always score 11 before going to 12, except at beginning of session if S is already engaged in purposeful play.

b. 11 is used for behaviors which involve materials, not just toys, e.g. playing with the lights, microphone, or digging in a purse.

c. 11's should be scored if subject ceases playing directly with the toy and begins just carrying it around (count 3 seconds before reverting to this).

d. Taking things in and out of the toy box, such as looking for something to do, is the same activity (11) even though the subject is touching new toys. But when the subject takes something from the box and then starts playing with it and ignores the box, then this is a new 11 with the appropriate new 4- code with that toy.

e. Always score the subject's latest activity even if he is still holding parts of the previous activity.

1-2 Directed play with toys. Subject is touching toys and is engaged in purposeful play. Any sequenced, repeated activity with toy will be termed "directed" play. He may be putting toys in and out of the toy box or he may be engaged in clear sequenced activity around a particular toy, i.e., "cooking and serving food" with the kitchen set, coloring with crayons in coloring book. 12 terminates "3" codes and "1" codes.

Conventions

a. Putting crayons in the crayon box is a 12, but when the box is closed and the child is just holding it then score a 11.

b. After child empties the blocks sack, score 12. However, if child then stands there and doesn't begin to play or at least sit down and touch the blocks, go back to 11 after 3 seconds.

1-3 Show/extend toy. Subject holds out his arm which contains a toy in the direction of the other. Also scored when subject points to a toy while looking at or vocalizing to mother. Frequency count only, no duration.
Conventions

a. Show is scored only for a definite gesture toward the other or a gesture which is calling the other's attention to some aspect of an object either verbally or by holding it out toward the other.

b. Score 10 for each separate show or point.

c. To score 10, the other subject must be capable of seeing what (s)he is doing (i.e., in the line of vision) or subject must look at other and point, show, or say "here....".

1-4 Give toy. Subject places toy in other's lap or hand so that the other has physical contact with toy. Frequency count only. If subject ceases to have contact with toy for more than 3 seconds, score "10". (Gives can occur with one placing an object in the other's lap but maintaining contact).

1-5 Mutual Play. Child and mother are both in contact with toy and are engaged in mutually involving play. If mother and child are actively involved in a sequential activity (e.g., hide and seek) which does not involve toys, score 15 (RARE) Terminates "1" and "3" codes. Mutual reading is "33", not "15".

Conventions

a. The 1-5 begins when both have touched the toy. Regardless of how the beginning occurs (join, suggests join, etc.), the 15 is not scored until the other has touched the toy. In the case of a non-toy activity, both must have made a physical gesture indicating involvement, e.g., singing, hiding eyes, etc.

b. The 15 can continue even though both are not still touching the toy or toy part. For this to occur, the partner not touching the toy must: 1) be in close proximity; or 2) not have moved away from the location of activity. When 2) is violated, the 15 ends.

c. If mother and child were in 15, then completed their activity, keep them in 15 as long as they are discussing the previous activity.

d. Both members of the dyad must be actively involved for a 15 to continue to be scored. If a member backs away (for example sits back), then score 4710 for her and 12 or 11 for the other.

1-6 Inappropriate play with toy. The child bangs things with toy or throws toy. Reserved for instances of inappropriate force, coloring on anything but paper, or doing something which the mother has already prohibited. Child must clearly not be "playing" with toy. Usually child's facial expression will indicate anger or frustration. Frequency count only; therefore score each time behavior occurs, e.g., each time crayon is raised from book and a new mark is made.
Convention

a. Going to door with clear intention of trying to escape or being provocative is a 16.

Frequency

1-0. End play with toy. Subject no longer has contact with a toy. Duration of out of contact must be at least 3 seconds before 10 scored to avoid momentary pauses in a sequenced play with toy; i.e., a child searching for another piece of puzzle while no longer holding any pieces would not be scored out of contact until 3 seconds had elapsed. Terminates all "1" or "3" codes.

Conventions

a. If child still visually engaged with toy; e.g., coloring book—when looking at pages first colored, do not score 10. Reserved for times when child's physical activity indicates he has finished an activity.

3 BOOKS

Duration and Frequency

3-1 Contact. Scored whenever subject is in contact with book or magazine, whether opened or closed.

Convention

a. A 31 is scored even if the book or magazine is lying in the person's lap.

3-2 Read Alone. Book is open. Subject is looking at book and reading (or talking about) to self while the other is involved in a different behavior. Terminates all "1" codes as well as "3" codes.

Conventions

a. 4731 Mother looks up and verbalizes to child. Break the 4132 and score 4731. If Mother verbalizes but does not look up, do not break the 4132; even if mother's verbalization is a 51 or 42. If Mother looks up without verbalizing, count to 3, then break the 4132 and score 4731. If look up is less than 3 sec, do not break the 4132.

b. 4132 In going back to 32 from a previous 47, break the 47 as soon as the Mother looks back at the book. However, if Mother is talking to child when returning to look at the book, keep the 47 going until Mother and child stop talking to each other.

3-3 Read together. Both partners are near to and looking at the same book. One may be pointing to pictures or talking about the book or reading the text aloud. Terminates all "1" and "3" codes.

Conventions

a. Both partners must be actively involved to be in 33. If child or mother moves away or backs off, score a 4730.
b. If mother and child were in 33, then completed their activity, keep them in 33 as long as they are discussing the book.

c. A 33 begins when either mother or child touches a book and the other is either touching the book or is actively involved visually.

d. Mother and child must be in close proximity to be in a 33. A mother (or child) reading aloud to a child (or mother) sitting in the chair coloring, for instance, is not a 33. If listening is the child's only activity then it would be a 33.

3-0 Terminate. All involvement (reading or contact) with book ended. If mother or child closes book but continues to hold it or have it in lap, score 31.

4 INITIATION OF ACTIVITY

4-1 Self Initiated. Scored at the beginning of each new activity that has not been verbally or physically suggested by the other. Activity is defined as either 1) play with a different toy from one currently engaged in or 2) play with a toy after a period of no activity or 3) a clearly new activity with the same toy, i.e., putting blocks into bag after a period of building with them, coloring in coloring book after a period of looking through coloring book. 41 always is coded in conjunction with a molecular category unless instance 3 described above occurs, in which case the "1" category would continue to run.

Conventions

a. Wait 3 sec. before changing from 41 to 4010. Also when changing from a 41 to another 41, the new 41 must last at least 3 sec. This convention will avoid disrupting an ongoing 41 (or 15) when child briefly touches another toy.

b. If child is building with blocks; and then builds something different, this is not a new 41. Similarly, if in 4115 with blocks and mother says: "Build me an X", score this a 51 for mother and 52 for child if appropriate, not 42 and 45.

c. After playing with toys, if S begins to put them up, score a new 41 if it is not part of the ongoing activity. Putting toys away is a new activity, score 41.

d. If S is putting away one set of toys, then begins putting away other toys, do not score a new 41 (the major activity is putting away). Similarly, if the other says "Now put away (different toys)", score 51 and not 42. If S does it, score 52, and not 45.

4-2 Suggests New Activity. The child verbally or nonverbally suggests that the other begin an activity different from the one in which he is engaged. Child may vocally suggest the new activity or may bring a toy to the mother as a suggestion. If child has been engaged in activity himself (12) prior to the suggestion, score 43 not 42.
Conventions

a. If child brings something to mother and asks her to fix it or do something to it score 43 for child if he was already in 12 with toy and 45 for mother. If child moves away, watching her, score 47 for child.

b. If S picks up toy and gestures for the other to take the toy, score 41142.

c. A 42 like a 45 and 43 does not have to be verbal, nor does it have to include toys.

4-3 Suggests other to join play. Child engaged in directed play with toy (12) and suggests (verbally or nonverbally) that mother join his activity.

Conventions

a. When a child is indirectly asking for mothers help (e.g., "I can't do this.") score as a 43, for the child unless the verbalization is not directed toward the mother.

b. The difference between a 42 and a 43 is: a 43 is scored when S has a toy (12) and is suggesting the other join. A 42 is scored when S is suggesting that activity for the other to do.

c. If S says "I'll show you" and on his/her own accord brings the object to the other, it is a 43. If S shows object to other and gives it to her then it is a 13 and a 1443.

d. The mother or child has to be in a 12 to request the other to join (43).

4-4 Join. The other is engaged in some activity and the subject enters into the activity by playing with the same material. Subject must actively begin to interact in same activity or with same materials; if subject merely moves closer in order to observe other's activity, she is scored 47 (passive participation).

Conventions

a. If child is doing something and mother says "Let me see that" it is a 51 and a 4415 for mother if child brings it to her (and a 5215 on the child's part).

b. If mother says "would you like me to help you?" and then moves to become involved when child says "yes", score 44 on her part.

4-5 Accept. The other complies with a 43 (suggests join) or a 42 (suggests) beginning a new activity which was suggested.

Conventions

a. A 45 must be a physical response, not merely verbal acquiescence.
b. If S gives part of toy to other and other takes it, it is a 43-45 regardless of length.

c. At the beginning, prior to the start of the Session, if child has initiated activity by bringing to Mother, score 411543 (child) and 4515 (mother).

d. If subject is passively participating (47) and joins or accepts the others activity, a 44 or 45 MUST be scored.

e. If mother suggests several things to do and the child goes over and does them in that order, the first is a 45 and then the rest become 41's.

4-6 Reject. The subject rejects the other suggested activity or invitation to join or command to stop. The refusal must be verbal ("NO"... "I won't"), or actively physical (Hand motion, obvious 16). Ignores do not count.

Convention

a. If child suggests something like "give me some butter" as an invitation to join play, and mother says "No I don't have so and so" it is a 46.

Duration and Frequency

4-7 Passive Participation. The subject observes what the other is doing without participating. Subject must be attending to other's activity: visually oriented, leaning forward, actively aware of other's activity without touching the toy.

Conventions

a. When 40 and 47 are difficult to separate, use vocalizations to other as an index of 47.

b. If child is sitting in front of mother (or standing) talking with her and is not in a 4111 or 12, score child as 47.

c. 47 is coded for both the mother and child if they are engaged in a conversation and the conversation is the sole activity and does not pertain to an activity just completed. A conversation is defined as two or more verbal turn-takings.

Duration and Frequency

4-0 No clear activity. The subject stands or sits without looking at the other or engaging in any manipulation of objects.

Conventions

a. If mother or child is eating and not attending to anything else, score 40.

b. When the mother is smoking and not attending to anything else, score 40(10).

5. MODIFICATION OF BEHAVIOR

All Frequency

5-1 Attempts to modify other's behavior. One verbally or nonverbally indicates a suggestion that the other alter his physical behavior (i.e., "come here").
"Mommy, look.") Does not include verbal interactions which are a request for verbal information (i.e., "what color is that?"---but would include "Point to the red crayon").

Conventions

a. 51 includes suggestions or indirect commands that would require physical responses. i.e., "Wouldn't it be better to put the toast on a plate?"

b. "Where" is only a 51 if the question requires a physical response.

5-2 Complies. One does whatever the other told him/her to do. (Mother does look, etc., when requested.)

Conventions

a. If mother tells child to do something, and child tries to comply, even if unsuccessful the child still gets a 52; e.g., tries to put a puzzle piece in but cannot do it.

b. If child says "Mom, Mom" and mother looks up, score 51 and 52 if the child's voice seemed to be insisting that the mother look. e.g., rising inflection at the end of a utterance.

c. Any verbal response to any question is not 52, regardless of the form of the question. If the other interprets a question to contain a behavioral request, do not score 52. Only score 52 when the question clearly requires a physical response. e.g., not 52's: Responses to where are the crayons? Where does this one go? are 52's: Responses to why don't you turn off the lights? Why don't you come here?

5-3 Rejects. One actively refuses to do whatever has been suggested by either continuing the same behavior if the other has told him/her to stop, verbally refuses, etc. Does not include ignoring requests by other.

Convention

a. 53 can be nonverbal in the following situations: 1) turning head away; 2) kicking and/or staying turned away; 3) or continuing to do what the other has said not to do - each time the prohibited behavior is done following a prohibition, score 5316. Deliberate ignoring, unless this includes continuing a prohibited behavior, is not a 53.

51 or 42

1. When playing with puzzle, if mother does not verbally tell child where to place puzzle piece, but taps the place where it belongs, give mother a 51 and child a 52 if he/she puts the piece where mother tapped.

2. If child has not entered a 12 after touching a toy, and mother says: "Do X", or "You could do X", or "Why don't you do X", then score mother as 42 and child as 45 if he/she complies.
3. If child brings something to mother and asks her to fix it or do something to it, score 43 for child if child is in 12 with toy or 42 if he is in 11, and 45 for mother. If child moves away while watching her, score 47.

4. If S says "Do x" and the other is already doing x, then do not score 51 or 52. For example, if child is bringing blocks to mother and she says "Bring me the blocks", then mother does not get a 51 and child does not get a 52. Nothing is scored. Generally these are more "comments" by mother rather than commands and one can tell by the tone of voice.

5. If S gives two different 51's or 42's at the same time; e.g., "See that paper? You can draw on it", score two 51's (or 42's). Then if the other does both things, give two 52's (or 45's).

6. In scoring the control categories, ignore the form of the utterance and score the content; e.g., mother suggests that child play with blocks by saying, "Would you like to play with the blocks?" or "Play with the blocks". Or "What about the blocks?" or "Those blocks look like fun" or "See those blocks over there?" All of these would be scored 42.

7. If child is in a previous 41 and says "Let's do (a new 41)", give the child a 42 and if mother does it, give mother 45. Also, give child a 41 when the activity begins, even if mother actually begins first.

8. If S says "Do you want me to (perform some activity)?", and the other says "Yes", do not score 51 or 42. However, if the other repeats the 51 (or 42) or modifies or further clarifies the '51 (or 42), then score the other as 51 (or 42), and S as 52 (or 45) if S does it. Example: Mother says, "May I play with the blocks?" while child is playing with blocks. Child says, "Yes, build me a hotel". Then score 42 for child and 45 for mother if she does it.

9. A general admonition such as "Play with the toys" without specifying which toy is a 5-1 not a 4-2.

10. If mother makes suggestions about what to do with the toy that the child is playing with, score them as 5-1's. e.g., Child is playing with the blocks (12) and mothers says, "You gonna build me a house?"

11. If the mothers says something which sounds like a 5-1 but the child is already doing that, then the mother's comment is not a 5-1. e.g., Mother says, "You going to give the baby some milk" while the child is already feeding the doll. These are more of repetitive comments than requests. But when only one person is playing with the toy and invites the other to join her by saying, "You want to feed the baby", then this is a 4-3.

52 or 45.

1. If 5-1 or 4-2 occurs, and the other's response is verbal, do not score 52 or 45. If other does clear behavioral response to 51 or 42, then score 52 or 45 as appropriate. Latency between 51 or 42 and 52 or 45 is not time. For a 52 or 45 to occur it must be the next behavioral response following a 51 or 42 no matter how long the time period is. Otherwise do not score the response even if later the other clearly complies.
2. Any verbal response to any question is not 52, regardless of the form of the question. If the other interprets a question to contain a behavioral request, do not score 52. Only score 52 when the question clearly requires a physical response.

3. If mother tells child to do something, and child tries to comply, even if unsuccessful, the child still gets a 52; e.g., tries to put a puzzle piece in but cannot do it.

4. If S says "Give me x" and the other tries to find x to give, but does not actually give it, score 52 for the other since the other attempted to comply.