

APPENDIX A

Areas of Study

The five major areas of the study as described earlier, were human attachment, prehension, gross motor development, language and object permanence. The present volume is primarily concerned with our findings in four of these five areas.

Since data collection covered virtually all behaviors observed in a single session, other areas of interest to us emerged from the raw data and were given code classifications for later study. These areas were: behavior toward inanimate objects (toys); feeding; sleep; affectivity, conflict and defense; self-stimulating behaviors. Data in these areas are referred to only incidentally in the present volume.

Observational Procedures

Observers

Following the principles described earlier in this chapter, only senior investigators were given the responsibility for observation and recording. In the pairing of teams one or both members were senior investigators.

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Setting

Each baby was visited in his home at twice-monthly intervals for sessions ranging from 1 to 1 1/2 hours. Visits were timed to coincide with a morning or afternoon waking period, and observations were fitted into the normal routine of that period. Nearly all of the data required for our study could be obtained through observing a feeding, a bath, a play time with mother, a diapering or clothes change, and a period of self-occupation with or without toys. A small amount of time in each session was employed for testing procedures in the areas of prehension and object concept.

The observation period began with an informal session with the mother in which we obtained her picture of the baby's development in the two-week interval. The mother's report was recorded in a detailed narrative. Her selection of material to report to us and qualitative aspects of her mothering were noted. During this time, the second observer was recording the baby's activity at a time when mother was not interacting with him.

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Recording

The two observers made continuous notes as they followed the baby in typical routines of his waking period as described above. To insure coverage of all items which had to be gathered for comparative developmental study, the observers memorized our coding schedule with particular reference to the developmental period appropriate to each baby. We did not use a "check list" as such. This would have defeated our objective of observation in natural context. We did not impose any specific order or sequence in data collection except during formal testing procedures.

Film Documentation

At monthly or twice-monthly intervals (depending on the age of the child) we recorded cinema film samples of behavior in the areas of (a) mother-child interaction, (b) feeding or play, (c) prehension, (d) gross motor achievements, (e) self-occupation. We used an Arriflex movie camera, three flood lights on tripods and Plus X film. The photographing did impose a degree of constraint on the observational session and we tried to keep this within the minimum required for useful

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documentation and study (approximately 400-600 feet of 16mm film). We did not film continuously through the hour but obtained samples in the areas under study.

During filming, one of the observers recorded continuous notes. These notes indicated when the camera was off and on, what demonstration was being attempted, what stimuli not caught by the camera might be causing the infant's response (someone across the room calling the infant, an unexpected loud noise outside), what verbal communication was occurring between the adults or between the infant and mother. These notes enabled us to see the film for review with an understanding of the context in which it was made. Since the film was silent and not continuous the notes were essential to supply the complete background.

The film record was reviewed on a variable speed projector at the scheduled case review of each baby with other senior investigators present. The film record proved indispensable for certain areas of our study. In the study of prehension, for example, the patterns of adaptive hand behavior in the blind infant were entirely new to the professional student of child

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development who had been trained in observation of sighted infants. We needed to draw inferences from subtle, fleeting hand and finger movements which could be obtained only through slow-motion study.

The cinema record served data collection in two other ways: first, the film itself was available for repeated study and comparison; second, a recorded narrative of each film was transcribed, and the written protocol that resulted was entered into the baby's record as a separate document and was coded. The transcript was obtained as follows: as the film was reviewed at 1/3 speed, with other staff members present, the senior investigator of the baby's research team recorded on a dictaphone a complete narrative of the film sequence in fine detail. Where there was disagreement among the viewers regarding specific detail, the disputed film sequence was run over again. "Consensus" or no "no consensus" in observation was recorded for the coders. The transcribed narrative of the film became a flexible document which served retrieval of any items of information recorded on film, and as source material for coding and evaluation.

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Our guidance program became a third source of information in following the baby's development. There were typically two or more regularly scheduled guidance visits per month, based upon requirements of the case, varying with the age of the child.

The scheduled guidance visits, or guidance offered in the regular observational session, were recorded in narrative form, following the same method employed in the general research plan. Educational strategies and counsel offered were recorded in explicit detail, "I said . . ." "I suggested . . ." "mother said . . .". In this way our interventions could be examined in relation to other variables in the study. The guidance protocols became a rich source of qualitative data and gave other dimensions to our study. The recording methods, entirely compatible with those employed in the primary investigation, made it possible for us to employ the general coding schedule for retrieval of data from this source.

Evaluation of Data

Data evaluation was conducted on several levels of complexity:

(1) The preliminary indexing and tabulation of data was performed by student assistants under the supervision of senior staff members. A rigorous training in the use of our code schedule was a prerequisite for this work. Frequent cross checks were made to insure reliability.

Assistants read the protocol and classified the data into the major categories of our study by means of tabulation symbols in the margins. In the tabulation of data the categories were further broken down into subdivisions following the code schedule. This, then, enabled us to make comparisons within our sample.

The tabulated data gave us a shorthand summary which served certain purposes of the investigation. At the same time each item tabulated in code had a cross reference by page and line to the original protocol so that the descriptive and qualitative aspects of the behavior studied could be given separate treatment.

(2) The major areas of the study were then divided among senior investigators for intensive mining of

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content, refined sorting, the construction of individual and group profiles and comparisons within the group.

(3) Team and group meetings of senior investigators were instituted to discuss (and argue) criteria, to review problems of judgment and scoring, to credit by consensus. The N of 10 provided its own constraints. If there was no consensus in crediting an item, we discarded the item and moved up the ladder in our protocol sequence until we found an item which was finally credited by consensus.

(4) In final tabulation and write-up, the chief investigators made their own last checks and reviews, consulting the original protocols and films.