DOCUMENT RESUME

ED 065 177 PS 005 697

AUTHOR Horowitz, Frances Degen; And Others
TITLE An "Infant Control" Procedure for Studying Infant Visual Fixations.
PUB DATE 72
NOTE 4p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Attention Span; Data Analysis; *Infant Behavior; Research; *Stimuli; *Testing; Test Results; Time; *Visual Stimuli

ABSTRACT

A study was conducted in which the infants' behavior was allowed to control stimulus duration. A group of five infants were tested once a week from 3 through 14 weeks of age. A second group of five infants were tested once a week from 8 through 14 weeks of age. A third group of 18 infants were tested once at 3, 8, or 14 weeks of age. Once a stimulus was presented to an infant, it remained on until the two observers had simultaneously recorded no looking behavior for a continuous period of two seconds. Each of six checkerboard stimuli and the grey square were shown twice in two different orders. The longest looking time to a single stimulus recorded in this study was 1073 seconds, or over 17 minutes. Looking durations of over 2 minutes were very common. On several occasions, durations of over 8 minutes were recorded. An analysis of the data was performed. The most important result of this study is the length of time an infant will spend looking at a stimulus in an experimental session. This suggests that it is possible to assess infant attentional patterns in chunks of long behavioral episodes. (CK)

AN "INFANT CONTROL" PROCEDURE FOR STUDYING INFANT VISUAL FIXATIONS[1]

Frances Degen Horowitz, Lucile Paden,
Kastoor Bhana, and Patricia Self

The University of Kansas

Infant researchers typically control the duration of stimulus exposures in studies of infant visual fixations. While using a standard 30 second stimulus exposure procedure, it was observed that at the end of the 30 second period the subjects were often still fixating the stimulus. Additionally, subject loss in the study was high due to crying and fussiness. Therefore, a partial replication of the study reported by Horowitz, Paden, Bhana, Aitchison, and Self (1972) was attempted using the same six checkerboard stimuli and a grey square. However, instead of the experimenter controlling the duration of stimulus exposure, the infants' behavior was allowed to control stimulus duration.

A group of five infants were tested once a week from 3 through 14 weeks of age. A second group of five infants were tested once a week from 8 through 14 weeks of age.

A third group of 18 infants were tested once at 3, 8, or 14 weeks of age. Once a stimulus was presented to an infant it remained on until the two observers had simultaneously recorded no looking behavior for a continuous period of two seconds. At the end of that two second period, the next stimulus was shown. Each of the six checkerboard stimuli and the grey square were shown twice in two different random orders.

Infant fixations observed under this procedure were of much greater duration than would normally be expected. Some fixations lasting only a few seconds were recorded before the occurrence of the criterion of 2 seconds of no looking. There were, however, durations of over 150, 200, 300, and 400 seconds, on up to over 1000 seconds of looking time to a single stimulus without 2 seconds of non-looking behavior. The longest looking time to a single stimulus recorded in this study was 1073 seconds, or over 17 minutes. looking durations of over 2 minutes were very common; durations of 3, 4, and 5 minutes were also recorded. On several occasions, durations of over 8 minutes were recorded. Additionally, there was considerably less

fussing and crying observed during the conduct of this study as compared to studies using fixed presentation times. While subject loss in earlier studies using the 30 second duration was around 40%, subject loss in this study was only 28%.

In this study, 93% of the testing sessions were completed compared to 70% in studies using fixed presentation times even though the total duration of the session was considerably lengthened with the infant control procedure.

An analysis of the data obtained by the infant control procedure did not support an age x complexity interaction and no single subject in the longitudinal groups exhibited such a pattern of fixation changes. Thus, the essential results reported by Horowitz, et.al. (1972) were replicated. The more important result, however, is the length of time an infant will spend looking at a stimulus in an experimental session. This suggests that it is possible to assess infant attentional patterns in chunks of long behavioral episodes. The infant control procedure may be more analogous to infant attending behavior in the natural

environment behavior. Additionally, the seemingly increased cooperation of subjects resulted in reduced subject loss and fewer session interruptions.

REFERENCE

Horowitz, F.D., Paden, L., Bhana, K., Aitchison, R. & Self, P. Developmental changes in infant visual fixation to differing complexity levels among cross-sectionally and longitudinally studied infants. Developmental Psychology, 1972.

[1]An extended report of this study may be obtained without charge from Frances D. Horowitz, Department of Human Development, University of Kansas, Lawrence, Kansas 66044