Prevalence and Situational Causes of Stereotyped Behaviors in Blind Infants and Preschoolers

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Parents of 85 blind children aged from 10 months to the 6th year of life were asked regarding the frequency, duration and typical situations of the occurrence of various stereotypic behaviors in their children. The Bielefeld Parents' Questionnaire for Blind and Sighted Infants and Preschoolers was used as the instrument of measurement. All of the children displayed at least one stereotypic behavior; most displayed several stereotypic behaviors according to the parents' reports. Eye poking and body rocking dominated within the prevalence hierarchy. Four typical situations could be identified in which stereotypic behaviors were shown: monotony, arousal, demand, and during feeding or eating. The results suggested that repetitive hand and finger movements, stereotypic manipulation of objects, and making a face(s) mainly occur within arousal situations whereas eye poking, whimpering, and sucking thumbs or fingers especially are linked to monotony.

Stereotyped behaviors (also called stereotypies, stereotypic behavior, mannerisms, self-stimulatory behavior) such as body rocking or eye poking are found not only in blind or partially sighted children (Dumont & Markovits, 1991).
1982; Eichel, 1979; Jan, Freeman, McCormick, Scott, Robertson, & Newman, 1983; Keeler, 1958; Smith, Chethik, & Adelson, 1969) but also in mentally retarded children (e.g., Rojahn, 1986), autistic children (e.g., Hutt & Hutt, 1970), and mentally handicapped adults (e.g., Boice & Kraemer, 1981), as well as in nonhandicapped children (e.g., Thelen, 1979).

Any definition of stereotyped behavior must cover a wide range of movement and behavior patterns as well as the interindividual variability in these patterns. Eichel (1978, p. 126) has defined a stereotyped behavior as "any repetitive or stereotyped movement that is not directed toward the attainment of any observable (obvious) goal." This and other definitions (e.g., Baumeister, 1978; Berkson, 1983) emphasize four major characteristics of the movement: (1) the usually fixed form of its temporal structure that is repeated within a constant time interval; (2) the typographical invariance of pattern; (3) its invariance of environmental influences; and (4) the lack of any recognizable adaptive significance.

This definition may, however, be supplemented. First, it remains open whether self-injurious behaviors (see Bauer, Shea, & Gaines, 1988; Murphy and Wilson, 1985) should be included in the definition. Since they are often comprised of repetitive patterns of movement (e.g., rhythmic banging of the head against a wall, mechanical scratching of the skin), which do not differ from other stereotyped movements in their typography but rather in their injurious effects, they could be viewed as a subgroup of stereotyped behaviors (Jones, 1987). Second, it must be clarified whether stereotypies should be restricted only to movements. In blind children, stereotyped behavior patterns can be observed that are not comprised of movements in the strict sense of the word but still fit the above definition in that they are repetitive, rhythmic, and generally invariant of influences from the environment, and serve no recognizable adaptive function. (e.g., smelling/sniffing, hyperventilation, repetitive noises, and tongue clicking). As long as the etiology and function of stereotypies are not fully understood, it seems preferable not to restrict these behaviors just to movement patterns of the body or external parts of the body.

Theoretical Approaches

Theoretical considerations (see Baumeister, 1978; Baumeister & Forehand, 1973; Berkson, 1973, 1983) focus on two basic questions. The first concerns the etiology of stereotypies and what causes them to become a part of the child's behavioral repertoire. The second concerns the conditions and mechanisms that elicit and maintain them. These questions have been approached from four different points of view: (1) The behaviorist approach sees stereotypies as learned, instrumental behaviors that are acquired and