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Frank J. Symons

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REACTIONS FROM THE FIELD

Early Intervention for Early Aberrant Repetitive Behavior: Possible, Plausible, Probable?

FRANK J. SYMONS

University of North Carolina at Chapel Hill

Berkson and Tupa (2000) provide an important and informative account of the state of our knowledge base about the early development of stereotyped and self-injurious behavior in young children between birth and three years of age. The most consistent point appearing throughout the review is the need for further study. Given the near ubiquity of stereotyped behavior in some form among different developmental disabilities and the serious nature of self-injury among a significant minority of individuals with developmental disabilities, one wonders why we know so little about the origins of such a socially significant class of behavior. Berkson and Tupa argue that if we knew more about it, we could do something about it earlier and prevent the later development of a devastating behavior disorder. Although many models of aberrant repetitive behavior developed over the years are reviewed, they give less detailed attention to why there is a paucity of direct evidence in support of any one model in particular. Because of this, it is difficult to reach consensus about the most empirically defensible position regarding the early development of aberrant repetitive behavior among children with developmental disabilities. There may be several related reasons for this, three of which will be explored in more detail below.

First, on what behavior or class of behavior would we intervene and when? In other words, what would early intervention for early

aberrant repetitive behavior look like? Questions of timing (when?), intensity (how much?), duration (how long?) and specificity (only tissue damaging self-injury?) are central to this issue. The evidence as reviewed by Berkson and Tupa suggest that definitive answers to these basic questions remain unknown. Few studies have been designed to test directly the models of early development of stereotypy or self-injury and even fewer have been developed further as intervention studies. As they mention, it may be that such behaviors among young children are regarded as developmental phenomena that will be outgrown. Although this may be the case for most, it certainly is not so for all.

The second point, then, follows from the first. When is a repetitive movement aberrant? At issue is whether repetitive motor behavior is a continuous or discontinuous phenomenon in relation to normative and atypical early development. Is there any relation between the early rhythmic behavior through which all typically developing infants progress and the more idiosyncratic forms of repetitive behavior observed later in infants and toddlers with delays or disabilities? If one assumes that similar behavioral and developmental mechanisms are operating for children with and without developmental disabilities, then comparative studies should be designed to study variables across appropriately matched groups of very young children. The success of such

a strategy is predicated on selecting groups that are relatively homogeneous, matched appropriately, and for which instances of early repetitive movements can be reliably defined and recorded in a meaningful way. Thelen's (1979) seminal work based on direct observation of infant movement shed light on an apparently general phenomenon of early motor development characterized by a predictable sequence of onset, peak, and offset of rhythmical movements of body parts. Berkson and Tupa insightfully make the point, however, that Thelen's coding scheme may be less suitable to learn about idiosyncratic movements that later evolve into aberrant repetitive behavior such as stereotypy or self-injury.

Finally, the third point concerns the general relation among the early development of adaptive and maladaptive behavior and the focus of early intervention. At issue is whether we should intervene directly or indirectly with early stereotyped or self-injurious behavior. Berkson and Tupa point out there is an inverse relation between the severity of cognitive impairment and the presence of stereotyped and self-injurious behavior. The precise nature of this relationship is poorly understood, however. Presumably, those individuals with more severe cognitive impairments are less socially competent and at increased risk for the initial emergence of aberrant behavior. Identifying the key variables that lead to the initial emergence of stereotyped or self-injurious behavior would be of paramount importance for early intervention because of the potential to prevent its later occurrence. To date, however, we know only a little about the variables that determine whether emitted social behavior will be maintained in a child's behavioral repertoire (i.e., the efficiency of a response in controlling its environment, the effectiveness of a response in controlling its environment, the effort required to emit the response, etc.). When maladaptive behavior is more efficient, more effective, and requires less effort than adaptive behavior, it increases the probability of future occurrences of different topographies of problem behavior.

Early intervention efforts that specifically target adaptive behavior by making it more efficient, more effective, and less effortful

than maladaptive behavior are likely to produce positive indirect effects by reducing future occurrences of maladaptive behavior. Although this reasoning has a sound logical and theoretical base, there is little empirical evidence specific to stereotyped or self-injurious behavior to support or refute it. Rather, most of the empirical evidence is based on studies designed to reduce aberrant behavior *already in the repertoire*. To get around this dilemma, prospective studies of early intervention for children with significant developmental disabilities could incorporate measures of repetitive behavior problems to track their emergence or the lack thereof in comparison to appropriately matched controls.

In sum, the notion of early intervention for stereotyped and self-injurious behavior is certainly possible. Our current knowledge base suggests it may be plausible, although little direct evidence exists about the behavioral and developmental mechanisms specific to young children with developmental disabilities. Finally, the limits of this current knowledge suggest that far greater attention to the details of study design is required if prevention is going to be probable. On the other hand, effective early intervention for children with developmental disabilities that targets adaptive behavior may indirectly result in preventing the emergence of stereotyped and self-injurious behavior. To assess this assertion accurately, studies of the incidence of stereotyped and self-injurious behavior are needed. Further research awaits.

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Address all correspondence to Frank Symons, Ph.D., Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill, CB# 8180 105 Smith Level Road, Chapel Hill, NC 27599-8180.