SPECIAL ARTICLE

A NOTE ON THE EFFECTS OF SAYING GRACE ON THE
BEHAVIOR OF AN OPPOSITIONAL RETARDED BOY¹

Through the centuries, mankind has addressed countless pleas, requests, and petitions to some form of the Ultimate Being. Despite many assertions (*e.g.*, King James, 1611) of the positive effects of praying both on the individuals prayed about and on the person praying, behavioral psychologists have been slow to take up the challenge of an analysis of its behavioral effects. Since such a behavioral analysis would certainly have profound social implications, it was decided to determine the effects of the saying of grace on the desirable and undesirable dinner behaviors of a young retarded boy.

Allen was a 6-yr-old, moderately retarded boy who was extremely oppositional and exhibited severe conduct problems in his home. Dinner was a particular problem. Allen's behavior at dinner was recorded by noting whether or not each of the following two categories of behavior occurred during a 10-sec interval (Allen, Hart, Buell, Harris, and Wolf, 1964): (1) disruptions, *i.e.*, crying, head banging, throwing, demanding, slamming chairs, undressing, touching forbidden objects, spilling food, *etc.*; and (2) appropriate table behaviors, *i.e.*, holding and using utensils and napkins correctly, making polite requests for assistance or food, cleaning the table, and stacking dishes. During dinner grace, appropriate behavior was scored if Allen sat quietly with hands folded and head bowed. Reliability of the recording of these behaviors was obtained by independent observers during the course of a larger study on 15 occasions before and after the 15 days of data presented here. Reliability estimates were obtained by interval comparisons of the occurrences of each behavior and by dividing the number of agreements by the sum of the agreements and disagreements. Agreements on the nonoccurrences of these behaviors were not counted as agreements. The mean of these estimates for disruptions was 89.3%; for appropriate dinner behavior, it was 88.0%.

The parents were requested to omit saying grace on alternate days, except for dinners nine through 12 where two consecutive grace and no-grace dinners

occurred. Grace consisted of a 10 to 15 sec prayer thanking God for His blessings. On no-grace days, the father simply started eating without saying anything. Approximately 25 min later dinner ended, when the mother finished clearing the table. For all dinners, the parents were requested to ignore disruptions and praise proper eating.

Figure 1 presents the percentages of 10-sec intervals of disruptions and appropriate dinner behavior for the first 5 min of dinner. For the eight days when dinner began with grace, the median of disruptions was 63%, while for the seven days of no-grace dinners, it fell to 15%. Conversely, the median for ap-

Fig. 1. Percentage of 10-sec intervals in which disruptions and appropriate dinner behaviors were scored during the first 5 min of dinner. On grace days, dinner began with a short prayer. On no-grace days, this prayer was omitted.

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appropriate dinner behavior for dinners started with grace was 28%; on no-grace days, it rose to 67%. Over the entire 25-min dinner period, these differences between grace and no-grace dinners tended to disappear, although disruptions were still somewhat more frequent and appropriate dinner behavior slightly less frequent for dinners started with grace. Virtually no disruptive behaviors were given attention by the parents either on grace or no-grace days, while approximately 25 to 40% of appropriate behaviors were praised.

Grace is intended to be a period of humble thanking of God for His blessings. One would suppose that the starting of the dinner with such a quiet period would have, at least, a temporary calming effect. However, it is clear that the saying of grace had quite the opposite effect on Allen during the first 5 min of dinner. It may well be that the saying of grace was a discriminative stimulus (Bijou and Baer, 1961): disruptive behavior would be followed by parental attention and appropriate behavior would be ignored. This assumes that parental attention was a positive reinforcer and that the parents did attend differentially to disruptions. Extensive qualitative observation just before these data were collected, strongly suggested that these assumptions were correct. If a period of prayer can serve as a discriminative stimulus for another person's behavior, it may well have other stimulus functions. In certain situations, it may serve as a punishing or as a reinforcing

event. Subjectively, compulsory religious services seem quite punishing for some individuals. Conversely, Ayllon and Azrin (1968) utilized the opportunity to attend religious services to enhance the effectiveness of tokens as positive reinforcers for institutionalized adults. Prayer, then, may well have multiple behavioral effects and could be an important tool for the behavior modifier.

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