“Visions of sugar plums” is but one of many descriptors featuring sweets used when describing this season of the year. Believe it or not, there is a connection between such visions and the history of behavior analysis. Gumdrops, along with raisins, currants, and “party mints,” served as reinforcers in some of the earliest learning experiments with children as subjects (Bijou & Sturges, 1959). The sweet I wish to feature during this season of the year, however, is the familiar one that “melts in your mouth and not on your hand.” Yes, that’s it: the M & M, perhaps the most prominent candy in the history of our science.

In a comprehensive and influential review of “operant methods in child behavior and development,” Bijou and Baer (1966) discussed the use of M & Ms as reinforcers with children second, right after money. They noted the M & M slogan (see above) as a positive arguing for their use, but also several drawbacks, namely, concerns of parents with tooth decay resulting from too many sweets and the fact that “it is generally known that children will eat candy when they will not eat other food, candy is not insensitive to satiation” (p. 753). Despite these drawbacks, M & Ms became associated with operant research with children to the point that at least one behavioral research equipment manufacturer (the Ralph Gerbrands Company) advertised a pellet dispenser that could be adapted for dispensing M & Ms. (see Figure 1).

Using M & Ms as reinforcers may have started at the University of Washington soon after their 1956 introduction on the American culinary scene. Bijou was on the psychology faculty there, where he had an active research program focusing on the study of operant behavior of children. Bijou and Sturges (1959) described a discrimination learning experiment conducted with children conducted by Brackbill and O’Hara (1957) in which the reinforcers were M & Ms. Long before this, however, Warren and Brown (1943) used as reinforcers “candy pellets, approximately hemispherical in shape, … made of sugar, corn syrup, and gelatin … “ (p. 186). These pellets were the direct ancestor of M & Ms, but that history takes us too far from the topic of this brief piece.

The combination of a decline in operant laboratory research with children, general health concerns with candy for children, and the rise of the technology of Functional Analysis for general use by applied behavior analysts to identify functional reinforcers led to the demise of M & Ms (as well as other more structurally defined reinforcers) in research and practice. Visions of M & Ms, however, still dance in the heads of an older generation of behavior analysts.
References


