The Precision Teaching of Food Acceptance to a Child with Cerebral Palsy

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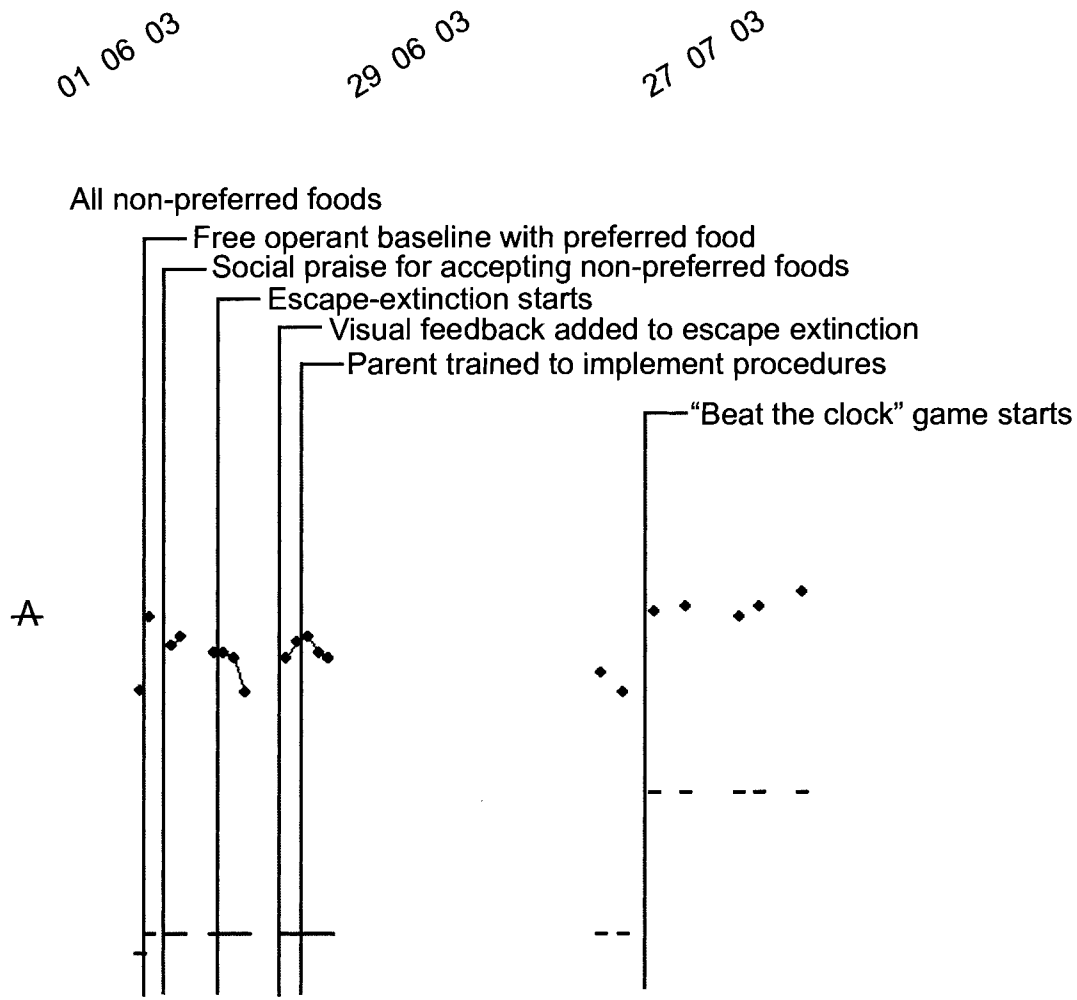
In the summer of 2003, the first author began her internship at the Child Study Center of Ft. Worth under the supervision of Duy Le. She chose the Child Study Center for the chance to develop skills in treating children with food selectivity. Her first client was Al, a talkative 6 year old with a diet of French fries and chicken nuggets. Al's only diagnosis was cerebral palsy, which did not interfere with his eating; otherwise, he was a very bright and verbose little boy. It seemed Al's food selectivity was reinforced primarily by escaping unwanted foods and secondarily by the attention he garnered while he sat at the table talking instead of eating (he absolutely loved to talk).

The first and second authors utilized a combination of escape extinction and positive reinforcement for acceptance of new foods in an attempt to increase the rate at which Al accepted new foods. Although this intervention increased Al's acceptance of new foods while refusals and other inappropriate behaviors (such as vomiting, gagging) decreased to zero, Al's rate of eating was still 2/3 that of his free operant acceptance rate of 2.0 bites per minute with preferred foods alone. This lower rate of food acceptance meant that mealtime was taking too long for the behavior change to likely maintain in Al's home, within his family's normal daily routine. During this same summer, the first author enrolled in a graduate course on the behavior analytic treatment of autism at the University of North Texas. One of the final projects for the summer course was to conduct and present a clinical intervention project charting a learner's performance data on the Standard Celeration Chart. This chart share is the culmination of that final project.

During Al's first session at the Center, he ate the four available non-preferred foods at a rate of 0.7 bites per minute. The first ten minutes of Al's second session at the Center, the same four foods were available as well as potato chips (a highly preferred food). Al was free to eat whatever he chose, and he chose to eat potato chips at a rate of 2.0 bites per minute, and this rate became the frequency aim used for eating non-preferred foods later in treatment. Three sessions followed in which the first author provided Al with social praise when he accepted non-preferred foods. Acceptance of non-preferred foods increased slightly until Al began refusing bites and food refusal was followed by escape from the target food. Immediately, food refusal increased and his overall eating rate dropped to 1.2 bites per minute of only preferred foods. It became apparent that praise alone was an insufficient treatment option.

On the sixth day of treatment, the first and second authors added an escape-extinction procedure to Al's intervention. This procedure included reinforcement for acceptance as well as a re-presentation of bites that Al refused to eat or that he vomited after accepting. If Al refused verbally ("I don't want it"), the same bite was presented and was not removed until he accepted the bite. If he vomited, a new bite of the same food was presented again and was not removed until he accepted and swallowed it without vomiting. The escape-extinction procedure increased Al's acceptance of non-preferred foods to 98-100% of bites presented although his rate of acceptance decreased to 0.8 bites per minute. On the ninth day of treatment, a visual feedback system was used to show Al when food was accepted within 15 seconds of an instruction to do so in an effort to decrease the latency of Al's acceptance of non-preferred foods. Acceptance of non-preferred bites stayed at a high percentage while the rate only increased to 1.4 bites per minute.

The next five sessions were spent training Al's mother to implement the escape-extinction procedure and the visual feedback system. During these training sessions, rates increased slightly and then slowly began to decrease. After Al's three-and-a-half-week vacation, his rate of accepting non-preferred foods dropped to 0.9 and then 0.7 bites per minute, although the percentage of bites that he accepted remained high. On the16th day of treatment, the authors began a rate-based intervention they called the "beat the clock game" with Al. Seven bites of food were available (four bites from non-preferred foods and three bites from preferred foods) and Al was told to eat as fast as he could in six minutes. What was left of the six minutes was what Al could spend as "talk time." The last four sessions of "beat the clock" showed rates of eating at between 2.0 and 2.75 bites per minute. Percent acceptance remained above 94%. Three new foods were introduced within the last five sessions of "beat the clock" with no decrease in rate of acceptance. The authors ensured that Al's mother was comfortable introducing new foods and implementing the escape extinction procedure before terminating treatment for Al at the Center.



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