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THE EFFECT OF VARIETY ON THE REINFORCING VALUE AND AMOUNT OF
PHYSICAL ACTIVITY IN CHILDREN, YOUNGER ADULTS, AND OLDER
ADULTS (161 pp.)

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It has been repeatedly demonstrated that increasing the variety of available food and purchasing options reliably increases eating and consumer spending behavior respectively. However, the potential pro-behavioral effect of increasing the variety of exercise equipment options on the amount of exercise individuals perform is very limited. The purpose of this investigation was to compare the amount, enjoyment (liking), and relative reinforcing value (RRV) of resistance training exercise versus a sedentary alternative during a high variety (HV) resistance exercise equipment condition versus a low variety (LV) equipment condition.

During each condition, children (8–12 years), young adults (18–26 years), and older adults (≥ 60 years) had free choice access to both resistance exercise equipment and sedentary activities for a total of 20 minutes. The amount of time allocated to resistance exercise, the total number of repetitions performed, and session liking were measured during each condition. After completing each 20-minute free-choice session, the RRV of exercise versus sedentary activity was assessed by asking participants to perform work, in an operant button pressing computer software task, to earn additional access to either resistance

exercise or sedentary activities. Participants then completed the time earned (maximum of 11 total minutes) for each activity. The amount of work performed and time earned for exercise and sedentary activity during each condition (HV, LV) served as the measures of RRV.

Participants significantly ($p \leq 0.05$ for all) increased: the amount of time allocated for exercise (14.3 ± 6.3 min vs. 12.1 ± 6.5 min) repetitions performed (126.4 ± 71.7 vs. 88.0 ± 48.8) and liking (8.1 ± 1.5 cm vs. 7.1 ± 2.1 cm) during the HV condition relative to the LV condition. RRV of resistance exercise versus a sedentary alternative was not significantly ($p \geq .09$) different from the HV to the LV condition in males but was significantly greater in the HV condition in females ($p \leq .05$). Increasing the variety of resistance training equipment increased the amount and enjoyment of resistance training exercise performed.