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VALIDATION OF DONATING TO CHARITY AS A MEASURE OF CHILDREN'S ALTRUISM[1]

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Summary.—Data are presented on the validity of donating tokens to a charity as a measure of altruism in 45 girls aged 6 to 10 yr. Such measures are shown to relate significantly positively to both teachers' ratings of children's generosity and to sharing candies with a best friend.

A frequently used method of measuring the altruism of children in laboratory studies has been the donating of tokens, won on a game, to a charity. This measure of altruism has been used extensively, for example, in studies of such social learning precursors of altruism as modeling and reinforcement and in studies of such developmental correlates of altruism as age, moral reasoning, and role-taking abilities, (5, 7, 12, 13). The validity of laboratory measures of altruism as indicators of altruism in natural settings has, however, been questioned (2). Krebs suggests, that because the frequency with which children donate to charity outside the psychologists' laboratory is low, that such measures lack "ecological validity." Krebs also suggests that laboratory measures involve the ubiquitous "demand characteristics" and "experimenter-effects" that critics like to invoke.

There are at least two responses that proponents of laboratory measures of children's generosity can make to their critics. The first is to show that the criticisms miss the point. Laboratories are not analogues of reality: they are controlled situations for clarifying essential determinants and processes of phenomena. The advantages of conducting experiments in laboratories are threefold. One, it allows for experimental control over all variables of interest, including extraneous ones. Two, it allows for the systematic exploration of the parameters in which the researcher is interested. Three, it allows for relatively unambiguous inferences about causality to be made. Once principles are discovered in the laboratory they then can be applied to the real world. This has been done for altruism (6, 7).

The second response is to point out that, in fact, the laboratory measures often *are* psychometrically valid indicators of the phenomena they are intended to measure. This is the approach to be adopted here. To some extent there are data already on the reliability and validity of donating to charity. In regard to reliability, control subjects in one study showed test-retest scores over a 2-mo. period of .71 (4). Even experimental subjects whose responses were

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susceptible to regression to the mean phenomenon as treatment effects wore off showed test-retest correlations of .5 over time periods ranging from 2 wk. (8, 9) to 2 mo. (4). In regard to validity, several studies have shown that donating to charity correlates positively with playing cooperatively on a car-racing game (10) and with sharing candies with a friend (8, 9, 10).

In the study reported here, we attempted to validate donating tokens to a charity against a teacher's rating of children's generosity. Using a teacher's rating seemed to be direct. Teachers have had the opportunity to form impressions based on observation of the children's naturally occurring behavior. We reasoned that, if donating tokens to a charity is a reasonable measure, then significant positive correlations should be expected between teacher's ratings of children's generosity, and their actual behavior in the testing situations, i.e., children who give a lot to a charity will also be the ones who are perceived as generous by the teachers. This was a strategy recently adopted by Johnston, DeLuca, Murtaugh, and Diener (1) in the context of laboratory measures of aggression. They demonstrated that striking Bo-Bo dolls correlated highly with both peers' and teachers' ratings of aggression, thereby validating this measure of aggression. In the present study, two other behavioral measures of altruism are employed in addition to donating to charity: a competitive car-racing game and sharing candies with a best friend. Both have been used previously (10, 11).

METHOD

Forty-five girls aged 6 to 10 yr. were chosen randomly from ballet classes held at the Beaches Recreation Center in Toronto, Canada.

A teacher rated the children on a 5-point scale of generosity "compared to the rest of the children in the class." The child raced a toy car against the experimenter's car along a 2-ft. "track" marked off in inches along the floor. The child was told to "see who can get to the end first." The experimenter moved her car at a moderately slow and even speed, making it easy for the child to win or lose the race by a large or small margin. A total of five trials were conducted. A "competitiveness" score was calculated by averaging over trials the number of inches by which the child won the races.

The child was instructed to take 2 tokens for each race she won and place them in a nearby bowl. She was told that the tokens could be exchanged for prizes and the more tokens won, the better the prize would be. When the races were completed, the child's attention was drawn to a poster of a child in a deprived environment. She was given an opportunity to donate some of her tokens to the child in the poster. During this period, the experimenter was out of the room. The generosity score was the number of tokens donated to the charity out of the possible 10.

The experimenter returned to the room with 20 candies and 2 small bags. On one bag the experimenter wrote the child's name, and on the other the name of her best friend. The child was told she had won the candies, and she could place them in her bag. She could also give some candies to her best friend if she wished. The experimenter then left the room. As the child left the room with the two bags, the experimenter suggested she leave the bags until after the class was finished. The generosity score was the number of candies shared with the best friend out of the possible 20.

RESULTS AND DISCUSSION

The Pearson product-moment correlations between each of the three behavioral measures and the teacher's ratings of the children's generosity are shown above the diagonal in Table 1, as are also the correlations with age. Many studies have indicated that children's sharing increases over the age range of 6 to 12 yr. (7, 13). This was found again here. To assess the interrelations between the variables unconfounded by age, the partial correlations are shown below the diagonal in Table 1. As predicted, the rating of the children's altruism was significantly related to the number of tokens the children donated to the charity. Furthermore, the rating of the child's altruism predicted how much the child would share candies with her friend and (marginally) how competitive she would be. How much the child donated to a charity also related to how much she would share with a friend.

TABLE 1

PEARSON PRODUCT-MOMENT CORRELATIONS AMONG AGE, TEACHER'S RATINGS, DONATIONS TO CHARITY, SHARING, AND COMPETITIVENESS IN 45 6- TO 10-YR.-OLD GIRLS

	1	2	3	4	5
1. Age		−.01	.44*	.14	.59*
2. Teacher's rating			.21†	.28‡	−.19
3. Donating to charity		.24‡		.64*	.21†
4. Sharing with friend		.28‡	.65*		−.03
5. Competitiveness		−.23†	−.06	−.14	

Note.—Zero-order correlations above the diagonal; with age partialed out below diagonal. †$p < .10$. ‡$p < .05$. *$p < .001$.

The relationship between the behavioral measures replicate those found by Rutherford and Mussen (11) and Rushton and Wiener (10). The relationship between the ratings and the behavioral measures indicates the validity of measuring altruism in these ways. The coefficients between any two measures are quite small ($M = 0.3$) accounting for, on average, only 9% of the variance. This, however, is the standard size for coefficients found between "items" of behavior. If altruism is conceptualized as a broad personality trait (7, Chap. 4), then it would be expected to occur in many instances over a range of situations. Any two instances would only intercorrelate a lowly .2 or .3 with each other because error and situational variance are associated with any one behavior. A battery of six instances is better because individual error variance is averaged out. A battery of 16 instances would be better still. Naturalistic measures would be better than laboratory to the degree to which they reflected more "instances" or "items." Peers' and teachers' ratings would be preferred too if they were based on many ratings rather than, as in this study, on only one. The main point, however, is that individual laboratory measures

are just as good; perhaps more of them are needed to assess generalizability and durability effects of the experimental treatments. It depends on the purpose of the research.

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