Re-Modeling Expectancy and Value in Physical Activity

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Recent research (Deeter, 1989) evaluated a model of achievement behavior in a physical activity setting. The hypothesized model was based on a cognitive expectancy-value model of achievement behavior (Eccles et al., 1983). It was hypothesized that expectancy related variables and task value related variables would directly predict performance, with no interaction between expectancy and value variables (exogenous correlations notwithstanding). The proposed model was found to be a reasonable fit to the data although it was only somewhat predictive of achievement behaviors. More support was found for the expectancy variables than the task value variables in directly predicting achievement indices. One interpretation of this finding might be that the relationships among expectancy and task value variables may be more complex than those represented by the proposed model.

The current paper reports the results of a post hoc exploratory model-fitting procedure conducted on the original data. The original data were used because the two-sample nature of the original study afforded an opportunity to evaluate the fit of a resultant model across samples, providing a stronger rationale for future evaluation of a respecified model. The purposes of the current procedure were to evaluate consistent relationships that were found among certain variables and were not included in the original model, and to make model modifications correspondent with other theoretical perspectives that allowed more interaction of expectancy and task value variables.

Early evaluation of Eccles et al.'s (1983; Eccles, Adler, & Meece, 1984) model indicated that expectancy and value influence achievement behaviors differently under different situations. In situations wherein one has the freedom to withdraw (or "escape"), such as in an elective or extracurricular activity, performance may be related to perceived task value. However, when one enters a situation involving little chance for withdrawal, such as in a curriculum requiring participation, expectancies are posited to predict performance (Eccles et al., 1984).

An alternative to Eccles' model may be one that better represents the developmental integration of expectancy and task value. Vealey (1986) indicated that individuals' experiences may influence the development of different com-

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petitive orientations. Variables influencing generalized expectancies have been found to be performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977). One’s interpretation of these sources of information (performance outcomes, observations of outcomes, and feelings about outcomes) include the conglomerate of attributions made for outcomes in the past and one’s history of reinforcement: the goal–reward structure (Ames, 1984) or pattern and nature of reinforcements that were or were not received and attributed to the outcome. Thus the first phase of the process may lie with an individual’s history regarding action-outcome experiences, attributions for the outcomes, and history of reinforcement for the outcomes.

The information provided helps one to develop both a normative and a self-referent conception of ability, generalized expectancies for future occurrences, a sense of value of what is most important, and an emotional response. Assuming that both expectancy and value have been developed from the same pool, but different subsets of information, it follows that normative and self-referent conceptions of self-efficacy may have roots in both expectancy and value. However, the type of information utilized in estimating efficacy expectations seems to differ for the two types of self-efficacy.

To the extent that one is competitive or win oriented, that individual may focus on and make use of information regarding past performances in socially comparative situations. In this case the normative self-efficacy estimates are grounded in the same information sources that influenced the development of competitiveness (an individual’s desire to compete and to achieve success in sport) or a win orientation (the desire to surpass others). To the extent that this type of individual is less familiar with self-referent types of activities, these estimates will be correspondingly weak.

To the extent that one is goal oriented, he or she may focus on and make use of information regarding past performances in self-comparative situations. In this case the self-referent self-efficacy estimates are grounded in the same information sources that influenced the development of a goal orientation (the desire to achieve personal performance standards). To the extent that this type of individual is less familiar with normative activities, these estimates will be correspondingly weak. It is therefore possible for both types of competitive orientation to influence one’s expectancy, although differently, depending on one’s past history of activity and information sources available.

Vealey’s (1986) model seems to reflect this developmental perspective better than the hypothesized model in Deeter’s (1989) original study. It involves an interaction between trait sport-confidence (SC-trait) and competitive orientation that predicts situation-specific sport-confidence (SC–state), achievement behaviors, and subjective outcomes. Generalized expectancies and competitive orientation (performance based or outcome based goals) are hypothesized to predict state sport-confidence (SC–state), which in turn is posited to be the most important mediator of behavior.

The aforementioned relationships were revealed by consistent aberrations in two indices of model fit from the original LISREL path analysis. The modification indices (an indicator of the degree to which specification of a given relationship would decrease the chi square value, thus improving the fit of the model to the data) and residual covariance matrices (an indicator of the accuracy of the reproduced relationships) were examined in an attempt to achieve a better understanding of relationships among variables not specified a priori that may be oper-