COMMENTS

Bridging the Research Traditions of Task/Ego Involvement and Intrinsic/Extrinsic Motivation: Comment on Butler (1987)

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In an experiment on the effects of different feedback conditions on motivationally relevant variables, Butler (1987) tested the hypothesis that the effects of feedback on intrinsic motivation would depend on whether that feedback promotes a task-involving or ego-involving orientation. She interpreted the findings as they relate to Nicholls's theory of task/ego involvement and our cognitive evaluation theory (Deci & Ryan, 1985). Although the data were very interesting, Butler failed to review a series of highly relevant studies, she misportrayed cognitive evaluation theory, and she drew conclusions that were not necessarily warranted given her experimental manipulations and data. This article provides a commentary on that research and presents a discussion of the relation between the two theories that Butler claimed to have tested.

In a recent article, Butler (1987) attempted to "bridge the traditions" of research on task/ego involvement and intrinsic/extrinsic motivation and to provide an apparent "critical test" between two current theories relevant to student motivation and performance, namely, Nicholls's (1979, 1984b) theory of ego versus task involvement and Deci and Ryan's (1980, 1985) cognitive evaluation theory.

Unfortunately, the Butler article did not achieve either objective, being neither a new bridge nor an appropriate critical test. First, although unacknowledged in her article, the two areas of task/ego involvement and intrinsic/extrinsic motivation have been bridged for seven years by a series of empirical investigations and theoretical discussions. Second, her presentation has failed to provide a critical test of the theories, in part because she misrepresented cognitive evaluation theory. And third, her conclusions are subject to alternative interpretations given her specific experimental manipulations and results. In this comment, we will elaborate those three points and discuss the comparison of Nicholls's theory and ours.

Butler's Argument

Butler, building on Nicholls's theory, reasoned that when people are task involved they are focused on an activity and its mastery and will therefore find it interesting (i.e., they will have high intrinsic motivation), whereas when they are ego involved they are focused on themselves and on trying to prove that they are better than others, so they will find the task less interesting (i.e., they will have low intrinsic motivation). Furthermore, she said, positive feedback can either promote task involvement or ego involvement, and will accordingly either increase or decrease interest in the activity.

Finally, she suggested, receiving praise or being graded will represent ego-involving feedback (i.e., feedback that focuses attention on the self) and will thus lead to less subsequent interest than receiving "individual comments," which represent task-involving feedback. She then presented an experiment in which she claimed to have shown that receiving grades and praise did promote ego involvement and did lead to comparably low interest and desire to engage further with the activity, relative to receiving task-involving comments. She then concluded that this confirmed her reasoning and supported Nicholls's theory over cognitive evaluation theory. Let us, therefore, consider each aspect of this reasoning.

1. In claiming to have bridged the traditions of ego involvement research and intrinsic motivation research, Butler implied that this had not been done before and argued that the task/ego distinction provides a more satisfactory framework than cognitive evaluation theory. In fact, the task/ego distinction is an explicit part of cognitive evaluation theory (Deci & Ryan, 1985), and the research traditions of task versus ego involvement and of intrinsic motivation have already been bridged in a series of experiments. Ryan (1982), for example, expanded on a discussion by deCharms (1968) and used cognitive evaluation theory to predict that ego involvement (the process of having one's self-esteem hinged to some outcome) would undermine intrinsic motivation relative to task involvement. Ego involvement, he suggested, represents a kind of internal control or pressure that people apply to themselves. Referring to this as internally controlling regulation, he reasoned that being pressured by these internal constraints (viz., *having* to do well to proves one's self-worth) would yield motivational consequences similar to those of being pressured by external constraints. In the experiment, Ryan found that ego-involved subjects displayed less subsequent intrinsic motivation than task-involved subjects, independent of the type of feedback they received. Although Butler cited Ryan's (1982) article, she did not acknowledge its central prediction regarding the effects of ego versus task involvement

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on subsequent interest. Instead she presented her prediction as new.

Subsequent articles by Plant and Ryan (1985) and Koestner, Zuckerman, and Koestner (1987) have also supported the predictions, based on cognitive evaluation theory, that ego involvement would undermine intrinsic motivation relative to task involvement. Thus, Butler's (1987) finding of ego involvement's leading to less subsequent interest than task involvement constitutes a conceptual replication of the studies that have already supported cognitive evaluation theory's prediction regarding the effects of ego versus task involvement on intrinsic motivation, and supports rather than contradicts the theory.

2. Butler, as we mentioned, referred to ego involvement in terms of attention being focused on "the self." It is, however, important to differentiate types of "self-focused attention." To be focused on proving one's self-worth and, similarly, to have public self-focused attention, have been shown to decrease intrinsic motivation. For example, experimental manipulations introduced by Duval and Wicklund (1972) of placing subjects in front of a mirror or a video camera (intended to induce public self-awareness) have been shown to decrease intrinsic motivation (Plant & Ryan, 1985; Ryan & Deci, 1987). In addition, public self-consciousness, as assessed with Fenigstein, Scheier, and Buss's (1975) scale, was found to be negatively correlated with intrinsic motivation (Plant & Ryan, 1985). However, private self-consciousness, another type of "self" focus, was not negatively related to intrinsic motivation. As we have argued elsewhere (Deci & Ryan, 1985, 1987), a focus on the self has deleterious effects on intrinsic motivation only insofar as the focus is evaluative or controlling (i.e., would facilitate the experience of pressure and of an external perceived locus of causality). The relation of ego involvement to self-focus is therefore complex, and some of this complexity has been clearly detailed by cognitive evaluation theory.

3. In her article, Butler highlighted mixed results from studies on the effects of positive feedback on intrinsic motivation, asserting that studies "have not considered whether the positive information provided was task- or ego-involving" (p. 475). She further stated that cognitive evaluation theory would predict that "intrinsic motivation will be maintained after praise" (p. 480). Again, she omitted reference to several important studies and failed to represent the differentiated nature of cognitive evaluation theory's predictions. First, in Ryan's (1982) study, positive feedback for ego-involved subjects led to less subsequent intrinsic motivation than positive feedback for task-involved subjects. More generally, cognitive evaluation theory distinguishes between positive feedback and/or praise that is "informational" (i.e., that serves to enhance one's sense of self-determined competence) and that is "controlling" (i.e., that serves to pressure one to perform in specific ways). According to the theory (Deci & Ryan, 1985) the effects of praise are *not* uniformly positive. Informational praise should enhance or maintain intrinsic motivation, whereas controlling praise should undermine it. Task-involving feedback is an example of informational feedback, whereas ego-involving feedback is an example of controlling feedback.

Studies by Pittman, Davey, Alafat, Wetherill, and Kramer (1980), Ryan (1982), and Ryan, Mims, and Koestner (1983) have shown that praise can be worded so that it will be experienced as either "informational" or "controlling," and that the former type of praise will increase intrinsic motivation relative to the latter type of praise. Thus, for example, controlling positive feedback—that is, positive feedback that is evaluative (Smith, 1974) or that emphasizes how one should perform (Ryan, 1982)—has been clearly shown to decrease (rather than increase) intrinsic motivation, across subjects. Furthermore, individual differences can lead people to interpret the same positive feedback as either informational or controlling, with the former interpretation leading to increased intrinsic motivation and the latter leading to decreased intrinsic motivation (e.g., Boggiano & Barrett, 1985; Deci, Cascio, & Krusell, 1975). In fact, a study by Kast (1983) showed that when feedback is ambiguous—neither clearly controlling nor clearly informational—person factors will play an important role in determining its effects, so the feedback itself would not be predicted either to increase or to decrease intrinsic motivation. By extension, positive feedback that is clearly ego involving would be predicted to decrease intrinsic motivation, positive feedback that is clearly task involving would be predicted to increase intrinsic motivation, and positive feedback that is ambiguous would be predicted to be midway between the two.

4. Finally, Butler predicted that grades (i.e., being tested) would foster ego involvement and decrease intrinsic motivation and that the effects of praise would be the same as the effects of grades. We agree that tests and grades as typically used can decrease intrinsic motivation (and impair conceptual understanding) and our studies (Benware & Deci, 1984; Grolnick & Ryan, 1987) have previously demonstrated this fact. However, from our view, whether the effects of praise will be comparable to the effects of grades will depend on whether the praise is informational (e.g., task involving) or controlling (e.g., ego involving).

Let us now look briefly at what was portrayed to be the critical test of the two theories. Subjects were given one of three types of feedback: comments (e.g., "You thought of quite a few ideas, maybe it is possible to think of more different ideas"); praise ("Very good"); or grades. (In addition, there was a no-feedback group.) Subjects' interest in the activity was subsequently assessed, and they indicated the extent to which they would like to do more of the activity. Butler reported that the comments group differed from the other three groups, taken together, with higher levels of interest and desire to do more.

Now, consider each condition in terms of cognitive evaluation theory. The "comments" that were used combined informational nonevaluative feedback ("You thought of quite a few ideas") with a further challenge (". . . maybe it is possible to think of more different ideas"). According to cognitive evaluation theory (Deci & Ryan, 1985), the informational component should enhance subsequent interest. In addition, we note that the comment group receives additional encouragement to do more that is not controlled for in these comparisons. The statement, "Very good," given to those in the "praise" condition was more ambiguous (i.e., somewhat in-

formational because it conveys competence feedback and somewhat controlling because the two words are rather abrupt and can imply a sense of having been evaluated and lived up to the experimenter's standards). Thus, according to cognitive evaluation theory, because it is neither clearly informational nor clearly controlling, varied individual interpretations would lead to a moderate level of intrinsic interest. The "grades" condition was more clearly evaluative and controlling, so according to the theory it should lead to a lower level of intrinsic motivation for subjects than either the praise or comments conditions.

Butler's results on the dependent measure "interest" were exactly as would be predicted by cognitive evaluation theory. The mean for "interest" in the praise condition was midway between and significantly different from the means for the comments and the grade conditions. Similarly, expressed desire to do more was also greater for the praise group than the grades group (3.38 vs. 4.14), and still greater for the comments group (5.42). Presumably, part of the reason that the comments subjects expressed a very high desire for more is that the comments explicitly encouraged them to try more (e.g., "maybe it is possible to think of more different ideas"). Taken together, then, the data do not support Butler's assertion that praise undermines intrinsic motivation, *just* as grades do. Rather, the data are more easily interpretable in terms of cognitive evaluation theory which says that praise may be informational, controlling, or ambiguous. Here it was relatively ambiguous, but nonetheless resulted in a higher level of intrinsic interest when compared to the more clearly evaluative grades condition.

To summarize the foregoing argument, Butler misrepresented cognitive evaluation theory; her data relevant to intrinsic interest (which she portrayed as the critical data for disconfirming cognitive evaluation theory) were entirely consistent with cognitive evaluation theory; and predictions and findings very similar to hers had appeared in several previous articles that were absent from her research review.

Because Butler's (1987) article contrasted Nicholls's (1984b) theory with ours, we would like to focus the remainder of this commentary on what we believe to be the important points of convergence and divergence between these two approaches.

Synthesis Versus Contradiction of Theories

Nicholls (1984a) argued that the term *ego involvement* applies to states in which a person seeks to demonstrate his or her own ability relative to others. He suggested that in such a state one typically adopts an "external or social self-evaluative perspective" (p. 329). In contrast, task involvement is a mastery-oriented state and involves a less external or evaluative perspective. Furthermore, he has convincingly linked developmental transitions in the differentiation of ability conceptions to one's potential to become ego involved, in this sense of the term *ego involvement*. Among the ramifications of his work are that children's capacity to become ego involved is intertwined and dependent upon their development of a social-comparison-based conception of ability. This would suggest that ego involvement is a motivational state not

typically available until a differentiated conception of ability evolves at some point past the preschool years. His work has great importance for the understanding of attributional development and varied types of achievement motivation.

Our interest in ego versus task involvement, following that of deCharms (1968), relates to the fact that ego involvement can represent a motivational orientation that is based on contingent self-esteem and thus entails pressure to perform in particular ways. deCharms associated ego involvement with extrinsic motivation or "pawn" motivation, because this pressured state is oriented not toward the inherent satisfactions of activity but toward proving one's self-worth. For us, as for deCharms, ego involvement is a form of internal motivation that is "extrinsic" and controlling, and as such is detrimental to interest and task involvement. This, of course, is what has been confirmed by several studies cited previously.

Are these two approaches contradictory? We think not, although they do have somewhat different foci. First, Nicholls has focused on the effects of task versus ego involvement on task-difficulty preferences and performance, whereas our discussions have focused on the effects of task versus ego involvement on intrinsic motivation and interest. Second, Nicholls has placed ego involvement in a developmental perspective by focusing on conceptions of ability. Our developmental analysis (Deci & Ryan, 1985; Ryan, Connell, & Deci, 1985) has focused on processes of internalization, in which ego involvement would be but one of the forms through which cultural values or pressures can be taken on as internal controls. And, third, Nicholls's concept of ego involvement is specifically limited to ability concerns in achievement settings, whereas we believe that the concept of ego involvement is broader than that. People can be ego involved in matters of appearance, wealth, gender-consistent behavior, or any other outcome where failing to meet an internal standard is experienced as a threat to self-esteem. Our primary interest in the type of ego involvement where one's self-worth is on the line (whether because of ability concerns or any other internal controlling standard) has been to show that it is but one of a number of contextual, interpersonal, or intrapersonal conditions that are controlling and can therefore be detrimental to intrinsic motivation, creativity, heuristic problem solving, and, more generally, autonomous regulation (Deci & Ryan, 1987).

The study of ego involvement has a long history in empirical psychology (e.g., Alper, 1942; Sherif & Cantril, 1947). As we have noted elsewhere (Ryan & Deci, 1987), a review of the ego-involvement literature by Greenwald (1982) led to the conclusion that there are at least three types of ego involvement: threats to esteem by others, threats to self-esteem, and personal importance. Discussions by deCharms, by Nicholls, and by us have focused on the second type of ego involvement, namely threats to self-esteem. Other researchers, however, have studied the personal valuing type of ego involvement and have found that it is not detrimental to intrinsic motivation (e.g., Harackiewicz & Manderlink, 1984; Sansone, 1986). It seems therefore that the views of ego involvement espoused by Nicholls and by us are in many ways complementary and that additional efforts toward synthesis (e.g., Deci & Ryan, 1987) could be of great value.

Furthermore, in the realm of education, discussions both by Nicholls (1984a, 1984b) and by us (Deci & Ryan, 1985; Ryan et al., 1985) have emphasized that educational contexts often wittingly or unwittingly facilitate ego involvement through social-comparative, evaluative procedures, and that this ego involvement can be detrimental to the intrinsic motivation, conceptual learning, and self-worth of students. As such, both perspectives would advocate the use of feedback and other procedures that minimize ego involvement and facilitate a fuller, more task-involved engagement with academic endeavors.

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