

NEGATIVE REACTIONS TO PERSONAL CONTROL

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Three experiments were conducted to explain why increases in personal control sometimes have been found to lead to negative reactions, such as lowered self-esteem and increased negative mood. In Experiment 1, subjects either were allowed a choice or had no choice of experimental tasks. Further, subjects had been led to believe that they were either fairly competent or incompetent on the chosen task. Increases in negative mood were found among subjects in the choice conditions, but, contrary to prediction, the level of competence on the task had no effect. In Experiment 2, subjects again were allowed either a choice or no choice of tasks, but half of the subjects were led to believe that their performance on the task would be unknown to the experimenter. Lower self-esteem and increases in negative mood were found only among subjects given a choice of tasks who also believed that the outcome of their performance would be known. In Experiment 3, subjects given a choice of two tasks at which they believed they were competent did not display the increases in negative mood found among subjects given a choice of a task at which they believed themselves to be competent and one at which they believed they were incompetent. It is suggested that impression-management concerns may be responsible for the negative reactions to increased control found in some situations.

One of the most ubiquitous concepts in recent social-psychological theory and research is that of personal control. Numerous experiments have demonstrated that the perception that one has some degree of personal control over events results in a more desirable reaction to those events than does the perception of no control. For example, individuals given a choice of experimental task materials tend to perform better than

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do subjects given no choice (cf. Savage, Perlmutter, & Monty, 1979). Glass and Singer (1972) found that subjects given a button to push that supposedly terminated aversive noise failed to show the negative after-effects of noise exposure (e.g., poorer performances and increased frustration) found in subjects not supplied with a button. An extensive literature on "learned helplessness" (cf. Abramson, Seligman, & Teasdale, 1978; Garber & Seligman, 1980) demonstrates decreases in performance on many different types of tasks and increases in levels of depression following exposure to uncontrollable aversive stimuli. Finally, a series of field studies (Langer & Rodin, 1976; Rodin & Langer, 1977; Schulz, 1976; Schulz & Hanusa, 1978) have illustrated how small increases in personal control for residents of old-age homes result in significant increases in activity level, happiness, and health.

All of these areas of research combine to suggest strongly that the perception of personal control is a very positive commodity. These experimental conclusions are bolstered by several theorists who discuss the important motivational aspects of personal control (cf. Adler, 1930; deCharms, 1968; White, 1959). White (1959), for example, proposes the existence of an "effectance motivation"—an innate motivation satisfied by the feeling of competence derived from successfully manipulating the environment. According to White, we all are motivated to seek out and engage in challenging tasks in an attempt to demonstrate our personal competence and mastery over the environment. DeCharms (1968) maintains that the desire to "be the primary locus of causation for, or origin of" one's behavior is our "primary motivational propensity" (p. 269).

Therefore, it generally has been acknowledged that the more personal control one has over events, the better off one is. However, this conclusion has been challenged recently by a series of studies conducted by Rodin and her colleagues (Rodin, Rennert, & Solomon, 1980). These investigators found that subjects given increased control over a simple laboratory task (e.g., a choice of personality tests to take; permission to ask whatever questions they wished during an interview) reported lower levels of self-esteem on subsequent measures than did subjects given no control over the task. Rodin *et al.* suggest that subjects in the control conditions felt an increase in responsibility, which may have resulted in the lowering of self-esteem.

A related finding was reported recently by Miller (1980). Subjects in this reaction-time experiment were given a choice of retaining or yielding control over whether or not they and a yoked subject received an electric shock. Miller found that those subjects who yielded control (to the yoked partner, who supposedly was better able to avoid shock

for both of them) were less anxious and less hostile than were those subjects retaining control. Miller also suggests that an increase in responsibility experienced by the subjects opting to retain control may have led to the changes in mood.

These investigations thus tend to suggest that, under some conditions, control may lead to negative effects (lowered self-esteem and increased negative mood) instead of or in addition to the positive effects suggested by earlier research and theory. The questions that emerge from this research are concerned with why this phenomenon is found and whether or not it can be explained in a manner consistent with current theories on personal control effects. Both Miller (1980) and Rodin *et al.* (1980) suggest the perception of responsibility that is said to result from increased control as the factor responsible for the effect. But exactly how or why this increased responsibility affects self-esteem and mood needs to be explained. Experiment 1 of the present study was designed to examine the role of one variable—namely, the individual's ability to demonstrate personal competence—that might help explain these negative reactions to personal control.

An examination of the studies demonstrating negative consequences of personal control reveals that the subjects all appeared to be in a position that generally did not allow for the demonstration of personal competence. For example, subjects given a choice of three personality tests or given responsibility for whether or not they and another subject received shocks may have perceived that they could not really succeed on the task. That is, the subject might be able to select the "correct" test or to prevent the administration of shock, but these situations probably represent a lack of failure more than a demonstration of one's competence. Applying White's (1959) theory, it would be expected that personal control will result in positive effects only when the individual is allowed to demonstrate his or her personal competence. When no such opportunity is perceived, the concern that one is responsible for a potential failure may lead to the increase in negative reactions to control found in the Rodin *et al.* (1980) and Miller (1980) experiments.

Therefore, it was predicted that an individual allowed a choice of experimental tasks would show a lowering of self-esteem and an increase in negative mood only when that individual perceived that he or she would not be able to demonstrate his or her mastery over the task. However, when the individual was allowed to select a task that he or she believed would allow for the demonstration of personal competence, no changes in self-esteem or negative mood would be found.

EXPERIMENT 1

METHOD

Subjects

A total of 40 undergraduate males served as subjects in exchange for class credit.

Procedure

A college-age female served as experimenter for all subjects. Subjects were run independently. Upon arrival at the experimental setting, subjects were informed that the experiment was concerned with perceptual skills. The experimenter explained that three tasks were to be used in the experiment, each measuring a different aspect of the subject's perceptual abilities. It was further explained that the experiment consisted of two parts. During the first half of the experiment, subjects were to perform the three perceptual tasks for a short time each. Subjects were told that the second half of the experiment consisted of testing the subject on one of the three tasks for an extended period of time, approximately 20 minutes.

The tasks were then presented to each subject in a random order. One task was selected to give the subject the impression that he was quite competent at it. This task consisted of several items taken from the Block Design subtest of the Wechsler Intelligence Scale for Children (Wechsler, 1949). Subjects were informed that they had 60 seconds to complete each of the block design items, which consisted of rearranging some multicolored blocks to match a drawing of a design presented by the experimenter. All subjects naturally performed well on this task, usually finishing the design in a few seconds. At the end of the task the experimenter commented that the subject had performed quite well.

Two other tasks were constructed to lead subjects to believe that they were quite incompetent at the tasks. One of these tasks consisted of a list of 10 six-letter anagrams. Subjects were informed that they would be given 4 minutes to complete this task, because most college students were able to solve most of the anagrams in that time. In reality, none of the 10 anagrams was solvable. Thus, having solved none of the anagrams at the end of the 4 minutes, subjects should have perceived that they were fairly incompetent at this type of task.

The third task was a "mirror drawing" task. Subjects attempted to trace a six-pointed star with their nonpreferred hand with a mirror

reflection of the drawing surface as their only visual feedback. The experimenter explained that the subject had 30 seconds to complete the task, because most subjects were able to finish the tracing in that time. In reality, the star-tracing task is a very difficult one, and none of the subjects came close to finishing in 30 seconds. Thus, after completion of the three tasks, subjects should have perceived that they were quite capable on the block design task, but fairly incompetent on the anagram and mirror drawing tasks.

Control-No-Control Manipulation

At this point, the experimenter checked a predetermined schedule that randomly assigned subjects to experimental conditions. The experimenter was blind to the subject's condition until this point. If the subject was in the "no-control" condition, the experimenter studied the schedule for a few seconds and announced which of the three tasks the subject had been assigned to work on for the second part of the experiment (approximately 20 minutes). Subjects in the "control" condition were given their choice of certain tasks, the choice depending on whether they were in the competent or incompetent condition.

Competent-Incompetent Manipulation

Subjects assigned to the "competent" condition either were given their choice of which of the three tasks they would like to work on for the second half of the experiment (all chose the block design task), or were told they had been assigned the block design task, depending upon which control-no-control condition they were in. Subjects assigned to the "incompetent" condition were either given their choice of the anagram or mirror drawing task, or were randomly assigned one of these tasks for the second half of the experiment. Thus, at this point, subjects anticipated that they would be working on a 20-minute task that they had either chosen or not chosen and on which they believed that they were either very competent or very incompetent.

Dependent Measure

At this point the experimenter announced that she wanted the subject to fill out a few scales before beginning work on the upcoming task. One at a time, the experimenter presented the subject with the Self-Acceptance Scale items from the California Psychological Inventory

(CPI) (Gough, 1956); the Texas Social Behavior Inventory (TSBI), Short Form A (Helmreich & Stapp, 1974); the Multiple Affect Adjective Check List (MAACL) (Zuckerman & Lubin, 1965); and a questionnaire containing several manipulation-check items. The CPI scale and the TSBI are measures of self-esteem. The MAACL provides state measures of three moods: anxiety, depression, and hostility. The items on the questionnaire asked subjects to rate how competent they believed they were on each of the three types of perceptual tasks used in the experiment and how well they expected to do relative to other college students on the extended experimental task.

Upon completion of the scales and questionnaire, the experimenter announced that the experiment was concluded. Subjects were debriefed and dismissed.

RESULTS

Manipulation Checks

An analysis of subjects' ratings of their competence at each of the three tasks revealed that subjects believed themselves to be fairly competent at the block design task ($\bar{x} = 7.72$ on a 9-point scale, with 1 = very incompetent, 9 = very competent). Subjects also felt that they were not very competent on the mirror drawing ($\bar{x} = 3.30$) and anagram ($\bar{x} = 1.80$) tasks. Subjects did not differ significantly across conditions on any of these three measures. A significant main effect for the competence variable did emerge on the item asking subjects to estimate how well they would do on the 20-minute task relative to other college students, $F(1, 36) = 8.84, p < .005$. Subjects in the competence condition (block design task) expected to do much better on the task than did subjects in the incompetence condition. Thus, subjects' perceptions of their abilities on the three tasks appear to have been manipulated successfully.

Self-Esteem

Because the two self-esteem scores were highly correlated ($r = .65$), they were standardized and combined into one self-esteem index. This score was then examined with a 2 (control-no control) \times 2 (competent-incompetent) analysis of variance. This analysis failed to produce any significant effects. When the scales were examined separately, no significant effects were found.

Negative Mood

The MAACL provides scores for anxiety, depression, and hostility. Because the three subscales were highly correlated (correlation coefficients ranged from .55 to .77), the three scores were standardized and combined into one measure of negative mood. An analysis of variance on the combined mood measure revealed only a tendency for a significant effect for the control variable, $F(1, 36) = 2.79, p < .10$, with control subjects reporting more negative mood than no-control subjects. Separate analyses of variance were then conducted on each of the subscales. The results found a significant effect for the control variable on the hostility subscale, $F(1, 36) = 4.20, p < .05$. Subjects in the control conditions reported more hostility than did those in the no-control condition ($\bar{x} = 8.6$ and 6.1 , respectively). A similar, yet weaker, effect for the control variable was found on the depression subscale ($p < .11$), with control subjects reporting more depression than no-control subjects ($\bar{x} = 14.0$ and 10.9 , respectively).

DISCUSSION

In general, the results of Experiment 1 failed to support the expectancy that subjects would show negative reactions to control only when they could not display their competence on the task. Whether or not the subjects were allowed to select a task on which they felt competent did not appear to affect their subsequent self-esteem levels or their reported levels of anxiety, depression, or hostility. While the possibility that this competence variable plays an important role in the negative reaction to increased personal control cannot be rejected, there is no suggestion of support for this hypothesis in the data. On the other hand, there was some evidence to suggest that the subjects in the control condition did feel increased negative mood, relative to the no-control subjects. Although this effect was small and was found on the negative mood measure and not on the self-esteem measures, the results are at least consistent with the basic Miller (1980) and Rodin *et al.* (1980) findings that individuals may react negatively to increased control under certain circumstances.

EXPERIMENT 2

The question that remains unanswered from the first experiment is why subjects given control in this and other experiments reacted negative-

ly to this situation. It has been suggested that subjects in these experiments felt an increased amount of responsibility in the control conditions. One possibility is that this choice may have increased the cost of failure on the upcoming task in terms of public impressions and embarrassment. In Experiment 1, subjects who elected to work on the block design task may have felt that they were "putting themselves on the line." That is, to fail on the block designs after essentially stating that one could do well on such a task might be more traumatic than to do poorly on a task selected by the experimenter.

Thus the negative reactions to increased control found in the earlier experiments may have come from an impression-management concern (cf. Schlenker, 1980; Tedeschi, 1981), rather than from an exception to or qualification for the theories and research emphasizing the desire for and positive reactions to personal control. It can be readily observed, for example, that students rarely announce before a test that they expect to do very well. Such statements could easily result in a student's looking worse after not doing well on the test than if he or she made no public pronouncement. Arkin (1981) has termed this effort to avoid disapproval "protective self-presentation."

There are at least two areas of research related to this analysis. First, some investigators have examined the use of "self-handicapping" strategies (Berglas & Jones, 1978; Jones & Berglas, 1978). Berglas and Jones (1978), for example, found that males sometimes chose to take a performance-inhibiting drug prior to engaging in an experimental task. This choice is explained in terms of the subjects' desire to provide themselves with an explanation for potential failure on the upcoming task. The possibility of failure in the absence of any plausible external attribution may be more painful than increasing the probability of a failure with an excuse.

A related area of research is concerned with "defensive externality" (cf. Phares, 1979). Several studies suggest that some people report a general external expectancy on locus-of-control measures in order to protect themselves from taking responsibility for failure. By maintaining that most events are beyond their personal control, these individuals have a prearranged excuse for their inability to succeed at any given task.

In a similar manner, subjects in Experiment 1 may have felt that they had abandoned their excuses when publicly selecting the block design task as the one they preferred to work on. These subjects certainly had more at stake than did the no-control subjects, who made no public statements and who thus retained the possibility of claiming they could do better on another task. The importance of performing well on the upcoming task, therefore, was increased for the con-

trol subjects, because failure on the task (or, for some subjects, a performance less than the "excellent" one on the earlier block designs) would be more embarrassing and publicly degrading than for subjects not making this selection. This increased possibility of public humiliation, then, might have led to the increased negative mood found in the first experiment. The possibility of public embarrassment may have been especially evident in Experiment 1, because the undergraduate male subjects were performing on the perceptual tasks in front of a college-age female experimenter.

Following the above analysis, it was reasoned that individuals who were somehow "let off the hook" after their task selection would not perceive the increased cost of failure and, despite being given a choice of tasks, would not show the subsequent increases in negative mood. One way in which these individuals could be freed from the effects of their choice would be for the person(s) witnessing the choice of tasks to leave the scene suddenly and not find out how the individuals performed on the chosen task. That is, if the subjects selecting the block design task in Experiment 1 had felt that the experimenter was not going to see how they performed on the extended task, and that, in fact, no one would know whether they had selected that task or not, there should have been no increased concern for failure and thus no increase in negative mood.

Experiment 2 was designed to test this reasoning. Subjects were once again either given a choice of the three tasks or were simply assigned the block design task for the second half of the experiment. In addition, subjects were led to believe that the experimenter administering the extended block design task either was or was not aware of the subject's choice. Because it did not appear to influence reactions in Experiment 1, the competence variable was dropped for the second experiment. It was predicted that increases in negative mood, and possibly decreases in self-esteem, would be found only among those subjects who were given a choice of tasks and who believed that the experimenter would witness their performance during the second half of the study. When subjects had no choice of tasks or when they were led to believe that the experimenter for the second half was not aware of their choice, no changes in negative mood or self-esteem were expected.

METHOD

Subjects

A total of 40 undergraduate males served as subjects in exchange for class credit.

Procedure

The first half of the experiment was conducted in a manner identical to that of Experiment 1. In this experiment, however, subjects randomly assigned to the control condition always received their choice of the three tasks to work on during the second half of the experiment. Subjects in the no-control condition were always assigned the block design task for the second half.

Same-Experimenter-Different-Experimenter Manipulations

After the assignment or choice of tasks, subjects were administered the same three scales (CPI Self-Acceptance Scale, TSBI, MAACL) and the questionnaire used in Experiment 1. Subjects in the "same-experimenter" condition were administered the measures by the same female experimenter who conducted the first part of the experiment. Subjects in the "different-experimenter" condition were interrupted immediately after selecting or being assigned their task when a second experimenter, a college-age male, entered the room. The second experimenter apologized for the intrusion, but explained that a faculty member needed to see the first experimenter right away. He further explained that the faculty member had instructed him to finish the experiment for the first experimenter. The first experimenter quickly explained to the second experimenter that he was simply to administer the scales and the block design task (which the second experimenter said he had worked with before). The second experimenter then said that he had no idea what the experiment was about, and asked the first experimenter if she wanted to see the results. The first experimenter said she did not want to see the results and that they instead should be given directly to the faculty member supervising the experiment.

Thus, subjects in the different-experimenter condition who had selected the block design task were led to believe that the only person who knew of their choice, the first experimenter, would be leaving and would never find out how they did on the second half of the experiment. This manipulation was enhanced by replacing the female experimenter with a male. At this point, the different-experimenter subjects were administered the scales and questionnaire by the second experimenter.

RESULTS

Competence Estimates

Once again, subjects estimated that they were quite competent on the block design task ($\bar{x}=7.80$, with 1 = very incompetent, 9 = very compe-

tent), but fairly incompetent at the anagram ($\bar{x}=1.75$) and mirror drawing ($\bar{x}=2.72$) tasks. These estimates did not differ significantly across conditions. Subjects' estimates of how well they would do on the upcoming 20-minute task (block designs) also did not differ across conditions.

Self-Esteem

Once again, the scores from the two self-esteem measures were standardized and combined into one index. These values were then examined within a 2 (control-no control) \times 2 (same-different experimenter) analysis of variance. A significant main effect for control was found on this analysis, $F(1, 36)=9.41, p<.004$. As can be seen in Table 1, this main effect emerges because of a significant interaction, $F(1, 36)=5.49, p<.02$. Newman-Keuls comparisons revealed that subjects in the control/same-experimenter condition reported lower self-esteem than did subjects in any of the other three conditions.

When the two self-esteem measures were analyzed separately, the significant interaction effect was found only for the CPI Self-Acceptance Scale, $F(1, 36)=6.56, p<.01$. This interaction, also shown in Table 1, again reflects a decrease in self-esteem only for subjects in the control/same-experimenter condition.

Negative Mood

The three subscales on the MAACL again were standardized and combined into one negative mood index. When these values were examined within an analysis of variance, significant effects emerged for the experimenter variable, $F(1, 36)=4.79, p<.03$, and the interaction, $F(1, 36)=7.60, p<.009$. As shown in Table 1, the interaction followed the same pattern as the self-esteem data, with negative mood increasing significantly only in the control/same-experimenter cell.

When the three subscales on the MAACL were analyzed separately, the significant interaction effect emerged only on the anxiety, $F(1, 36)=10.35, p<.003$, and hostility, $F(1, 36)=10.13, p<.003$, measures. As shown in Table 1, the interaction reflects a significant increase in both of these mood indexes in the control/same-experimenter condition.

DISCUSSION

The results of Experiment 2 provide considerable insight into the reasons why increases in personal control sometimes lead to negative reactions. The findings suggest that increased personal control may result

TABLE 1
Means for Dependent Measures with Significant Interaction Effects, Experiment 2

| DEPENDENT MEASURE | CONTROL | | NO CONTROL | |
|--------------------------------|--------------------|------------------------|--------------------|------------------------|
| | SAME EXPERIMENTER | DIFFERENT EXPERIMENTER | SAME EXPERIMENTER | DIFFERENT EXPERIMENTER |
| Standardized self-esteem index | -1.67 _a | 0.15 _b | 1.10 _{bc} | 1.93 _c |
| CPI Self-Acceptance Scale | 20.5 _a | 24.0 _b | 26.4 _b | 24.4 _b |
| Standardized mood index | 2.47 _a | -1.31 _b | -0.80 _b | -0.36 _b |
| Anxiety subscale | 8.4 _a | 3.3 _b | 4.8 _b | 5.5 _b |
| Hostility subscale | 9.4 _a | 4.9 _b | 5.4 _b | 5.8 _b |

Note: The higher the self-esteem score, the higher the level of self-esteem; the higher the mood score, the higher the level of mood. Means not sharing a common subscript differ by a Newman-Keuls test, $p < .05$.

in an increase in concern for damage to one's public image in the event of failure. Persons without this control or those for whom public scrutiny of choice and outcome is absent do not appear to suffer the negative effects—lowered self-esteem and increased negative mood—experienced by those perceiving some public accountability along with increased control.

Subjects in Experiment 2 allowed a choice of tasks for the second half of the experiment were denied the opportunity to make an obvious external attribution ("I could have done better on another task if given the choice") in the event of failure. In addition, a poor performance on the upcoming block design items would have been particularly painful after having made the block design selection, in essence predicting continued success on the task. It should not be surprising, therefore, that such a situation would result in negative reactions. That concern for public reaction to the upcoming performance, and not the choice per se, was responsible for changes in self-esteem and mood is illustrated by the finding that subjects for whom the public concern was suddenly erased failed to show these effects. When subjects in the control condition discovered that their performance on the upcoming task would be known only by an individual unaware of their choice or earlier performance, they did not report self-esteem or mood levels different from those of subjects in the no-control condition.

EXPERIMENT 3

Although the results of Experiment 2 indicate that a concern for self-presentation was responsible for the negative reactions to personal control uncovered in this experiment, the nature of the manipulation may have created some alternative explanations for the findings. In particular, the subjects may have become upset with their inability to perform well on two of the three tasks. This failure experience may have resulted in a type of reactance effect (cf. Wortman & Brehm, 1975), in which negative feelings were aroused. It is possible that these negative feelings were associated with or directed toward the experimenter, thus explaining why her departure resulted in an absence of these feelings in the control/different-experimenter condition.

One way to test this possibility is to create choice conditions that do and do not arouse these impression-management concerns and that keep the experimenter present throughout. According to this interpretation, it is expected that negative reactions to increased personal control will be found only when the individual has his or her excuses removed. That is, when subjects in Experiment 2 were not given a choice

of tasks, they still had the option of telling themselves or whoever was present that they might have chosen one of the tasks other than the block designs. The subjects in the control conditions could not fall back upon this potential face-saving explanation. Instead, having chosen the one task on which they had performed well, these subjects had abandoned their excuses. They had made a public pronouncement that they wanted to work on the task they had found to be relatively easy, instead of the ones on which they had not performed well. In other words, they were forced to take responsibility for their performance on the extended task.

If the reasoning described above is correct, then it can be expected that individuals who are given a choice of two tasks on which they have performed well, but not allowed to choose tasks on which they have performed poorly, would be in a position similar to that of the individual who is told he or she is going to work on the easy task, without the option of selecting one of the tasks on which he or she has performed poorly. That is, although this individual would have an apparent choice of two tasks, this is very different from someone who must select between a task that he or she has done well on and one that he or she has done poorly on. The person in the latter situation is abandoning the option of claiming that he or she might have chosen the more difficult task. But the individual not given the opportunity to select (and thus turn down) one of the tasks on which he or she has performed poorly may still maintain this face-saving excuse.

In Experiment 3, subjects were presented with four short tasks and led to believe they had done well on two and done poorly on two. Five conditions were created for the choice of tasks. One group was told that they would work on one of the tasks they had performed well on; another was told that they would work on one of the difficult tasks. In addition, one group was given a choice of the two tasks they had performed poorly on; another group was given a choice of two tasks they had performed well on; and a final group was given a choice of a task they had performed well on and one they had performed poorly on. It was expected that negative reactions to control would be found only in the condition in which subjects had a choice of one task performed well and one task performed poorly. Subjects in each of the other conditions would not have been forced to announce publicly their selection of the "easy" task over the more difficult one. Only subjects given a choice between the two types of tasks would be forced to take the position that their performance is a reflection of themselves. Subjects in the other positions could be expected to maintain their face-saving options.

The key comparison in this experiment was between the subjects

selecting one of the two tasks they had performed well on and the subjects choosing between a task they had performed well on and one they had done poorly on. If the negative reactions were found only in the latter condition, then it would be difficult to attribute the finding to a reactance effect. Subjects in both of these conditions would have failed two of four tasks and could anticipate facing the same experimenter for the second part of the experiment in which they would be working on one of the success tasks. The only difference would be that one group publicly chose to work on the "easy" task over the one they had difficulty with, whereas the other group was given the choice of two easy tasks.

METHOD

Subjects

A total of 50 undergraduate males served as subjects in exchange for class credit.

Procedure

The experiment was conducted in a manner similar to that used in Experiments 1 and 2. A college-age female served as experimenter. All subjects were told that they would work on four short tasks during the first part of the experiment and one of these tasks for an extended period of time during the second part of the experiment. Subjects then were administered four tasks in a random order. Three of the tasks were identical to those used in the earlier experiments: the block design task on which subjects believed they had performed quite well, and the anagram and mirror drawing tasks on which subjects believed they had performed quite poorly. In addition, subjects worked on a set of analogy problems. For this task, subjects were presented one at a time with a series of 10 cards, each containing an analogy problem (e.g., "Slipper is to: a. dipper, b. house, c. comfort, d. shoe, as cap is to hat"). The analogies were selected to be fairly easy to solve, but not so obvious that subjects would question the appropriateness of the problems for a college population. The experimenter told subjects that they had gotten each problem correct after each answer. In the few cases where a subject did not give the correct answer, he was still told that the answer was correct. The experimenter commented after the 10 trials that the subject had performed very well on the task.

After the subject completed the four tasks, the experimenter checked an assignment sheet that had randomly predetermined the experimental condition. Subjects were assigned to one of five conditions. In the "incompetent-choice/incompetent-choice" condition, subjects were given their choice of the anagram or the mirror drawing task for the second part of the experiment. Subjects in the "competent-choice/competent-choice" condition were told to select from the block design and analogies problems. Subjects in the "competent-choice/incompetent-choice" condition were allowed to select from two tasks, one randomly preselected from the block design and analogies tasks and one randomly preselected from the anagram and mirror drawing tasks. Subjects in the "competent-choice/no-choice" condition were told they would be working on either the block design or the analogies task, and subjects in the "incompetent-choice/no-choice" condition were told they would be working on either the anagram or mirror drawing task (these choices also were randomly predetermined).

Subjects then were given the CPI Self-Acceptance Scale, the MAACL, and the manipulation-check questionnaire. Upon completion of the scales and questionnaire, the experimenter announced that the experiment was over and debriefed the subjects.

RESULTS

Manipulation Checks

Once again, subjects rated themselves as being fairly competent on the block design ($\bar{x}=7.84$) and analogies ($\bar{x}=7.78$) tasks, and fairly incompetent on the anagram ($\bar{x}=1.64$) and mirror drawing ($\bar{x}=2.49$) tasks. Subjects did not differ across conditions on any of these measures. A significant main effect emerged on subjects' estimates of how well they would do on the upcoming 20-minute task, $F(4, 45)=2.61, p<.04$. Subjects anticipating working on either the anagram or the mirror drawing task (incompetent-choice/incompetent-choice and incompetent-choice/no-choice conditions) predicted they would do significantly less well on the upcoming task than did subjects in the other three conditions (all p 's $<.05$, Newman-Keuls test).

Dependent Measures

The three subscales on the MAACL again were standardized into one negative mood index. A significant effect emerged when this variable

was examined in a one-way analysis of variance, $F(4, 45) = 3.48, p < .02$. The means for this measure for each of the five conditions are presented in Table 2. As can be seen in the table, the incompetent-choice/competent-choice subjects reported significantly more negative mood than did subjects in each of the other four conditions ($p < .05$, Newman-Keuls test). When each of the three MAACL subscales were analyzed separately, no significant effects emerged from the analyses of variance. However, as seen in Table 2, the pattern of means was identical for all three scales. No significant effect was found for the self-esteem measure in this experiment.

GENERAL DISCUSSION

Taken together, the three experiments serve to demonstrate that, under certain conditions, subjects react negatively to increases in perceived personal control. The results of Experiments 2 and 3 provide evidence that these negative reactions may stem from a concern about how one is perceived by others. The results from Experiment 3 provide support for this interpretation that cannot be explained in terms of a reactance to failure, which could have generated the negative moods in the earlier experiment. Subjects who were given a choice of two tasks on which they had performed well did not display the negative reactions of the subjects forced to choose between a task they had done well on and one they had performed poorly on, despite having the same failure experiences and selecting the same task.

The findings from these experiments provide insight into the issue of whether increases in personal control are desirable. While recognizing that these conclusions may not easily generalize to all situations involved with the concept of personal control, it seems fair to say that personal control may be a double-edged sword. That is, there may be a price to pay for control that goes along with the positive aspects associated with controlling events in one's life. On the other hand, people may prefer to be in charge of many aspects of their lives, while on the other they may recognize that they are increasing their chances of looking incompetent or foolish.

Situations in which personal control becomes important thus appear to tap into two separate motives. First, there is the desire for control—for demonstrating one's competence and mastery. The preference for personal control has been demonstrated in numerous studies and discussed by several theorists. The absence of personal control, particularly over traumatic events, may result in a variety of negative reactions. On the other hand, while people are motivated to seek out and retain

TABLE 2
Means for Mood Scale Scores, Experiment 3

| DEPENDENT MEASURE | COMPETENT | COMPETENT | INCOMPETENT | COMPETENT | INCOMPETENT | COMPETENT | INCOMPETENT |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------|----------------------|
| | CHOICE/ CHOICE | CHOICE/ CHOICE | CHOICE/ CHOICE | CHOICE/ CHOICE | CHOICE/ CHOICE | CHOICE/ NO CHOICE | CHOICE/ NO CHOICE |
| Standardized mood index | 22.09 | 29.24 | 19.69 | 20.25 | 19.99 | 20.25 | 19.99 |
| Anxiety subscale | 6.3 | 9.1 | 6.3 | 6.1 | 6.2 | 6.1 | 6.2 |
| Depression subscale | 14.4 | 16.1 | 10.9 | 12.8 | 12.6 | 12.8 | 12.6 |
| Hostility subscale | 7.7 | 10.4 | 8.8 | 7.7 | 7.5 | 7.7 | 7.5 |

Note: The higher the score, the higher the level of mood.

personal control, motives of impression management or self-presentation may become operative. Such motives may spawn an increased concern for outcome that may result in some of the negative reactions found in the three experiments. Thus, the demonstration of these negative effects of control probably do not contradict earlier studies reporting positive reactions to control. Rather, both positive and negative effects may follow the perception of increased control; each is a reflection of a different motive.

There appear to be some important implications of the findings from the three experiments reported here. Until very recently, research concerned with personal control often suggested that the more control given to an individual, the better adjusted and more productive that person would be. Increases in personal control have indeed been found to be quite beneficial for certain populations, such as the institutionalized aged (Schulz, 1980) and elementary-school children with academic difficulties (cf. Dweck & Licht, 1980). Recent research suggests that it may be a mistake to generalize this maxim of more control to all populations, however. At some point the negative effects of control may become so great that they may override any positive reactions. Business executives, community leaders, some students, and many others may benefit from a decrease in the constant concern for public accountability that comes with increased control. In some instances, a lessening of events over which these people have control may be therapeutic.

In essence, some balance between the satisfaction of the need for control and impression-management concerns appears to be the most desirable. Too much control may be as harmful as not enough control. The extent to which an individual requires more or less control to maintain this balance may depend on, among other variables, individual differences in the two motives. Individual differences in the extent to which a given person generally prefers control over events (cf. Burger & Cooper, 1979), and the extent to which that person is concerned with monitoring his or her public image (cf. Snyder, 1974, 1979) should have an effect on the optimal amount of control for that individual.

A few of the limitations of the present findings also need to be stressed. Control has been operationalized here as the opportunity to choose between certain options. It has been suggested, however (Averill, 1973; Steiner, 1979; Thompson, 1981), that perceived control may take many different forms and that one type of control, such as the choice of tasks, may not operate in the same manner as other types of control, such as the ability to terminate an aversive stimulus. In addition, although found fairly consistently, the effect of negative reactions as demonstrated through the procedures employed in these experiments may not be a robust effect. The effect was uncovered for different

scales on each of the three experiments. However, given the difficulty of altering self-esteem scores or moods within a short laboratory experiment, the number of significant occurrences of the effect in this and earlier investigations is still somewhat impressive. Finally, the experiments reported here were concerned with performance situations in which the subjects could experience some failure. These analyses suggest that the negative effects attributed to concern for public reaction to the performance may not be found in the absence of some public evaluation. That is, individuals may be able to control as many non-evaluated events as possible without the harmful side effects demonstrated here.

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