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CONFLICT, DECISION, AND DISSONANCE

Chapter 5

Post-Decision Regret and Decision Reversal
Leon Festinger and Elaine Walster

The Temporal Sequence of Post-Decision Processes
Elaine Walster

The Post-Decision Process

■ We have now come to the point where we can examine the post-decision process in somewhat more detail. From our theory, and from much of the experimental evidence that we have presented, one is clearly led to the conclusion that the act of decision makes a crucial difference. The act of decision initiates a qualitative change in the cognitive process.

It seems important, then, to consider the immediate post-decision situation. Since we know that the process changes, it is of interest to know the exact nature of the transition from one to another process. Are the effects of the decision immediate? Is the transition sudden or gradual?

To help us start thinking about the matter, let us go back to our conclusions about the interaction between pre- and post-decision processes. On the basis of the experimental evidence presented in Chapters 2 and 3, we asserted that the greater the extent to which existing information is considered and thought through before dissonance exists, the more rapidly and effectively does dissonance reduction proceed after dissonance has been created. How might the transition from pre- to post-decision processes proceed in order to produce this kind of result?

If the pre-decision period is, indeed, spent mainly in impartially evaluating both the positive and the negative aspects of each alternative, then the more the person has done this, the more he knows about each alternative at the moment of making his decision. Furthermore, as we know from the previous chapters, after the usual type of decision is made the cognitive process of dissonance reduction begins. But, undoubtedly, it takes time and cognitive work in order to change one's evaluations effectively so as

to reduce dissonance. If the cognitive work has already been done, the process of dissonance reduction may proceed quickly. If the various aspects of the alternatives were not very well thought through in the pre-decision period, this process of examination must take place in the post-decision period in order to facilitate the reduction of dissonance.

The foregoing account implies that in order to reduce dissonance in the post-decision period, the person is mainly preoccupied with attending to the dissonance that exists. Hence we are led to propose the following characteristic of the transition from pre-decision to post-decision process. As soon as the decision is made, all the negative aspects of the chosen alternative and all the positive aspects of the rejected alternative become salient for the person. In other words, immediately after the decision the person focuses his attention on the dissonance that exists and, of course, attempts to reduce it. This notion of immediate post-decision salience of dissonance has already been suggested by Brehm and Cohen (1962), who also present the results of an experiment to support the idea.

In that experiment each subject was asked to check, on a list, the personality characteristics that he possessed. He was also asked to check the same list about a close friend of his. Each subject was then shown an artificially prepared list supposedly checked about him by his close friend. On this artificially prepared list a certain number of items were checked by his friend exactly as he had checked them about himself. A certain number were checked differently, however. In other words, on a certain number of items he was evaluated differently by his friend from the way he saw himself. These items presumably introduced dissonance. Brehm and Cohen report that immediately after the subject had seen the artificially prepared check list, there was a preponderance of recall of the dissonance-producing items. After a period of a few days, however, consonant items were primarily remembered.

While such data lend some support to the idea of immediate post-decision salience of dissonance, the support is rather weak. For one thing, the data do not pertain to a post-decision situation. But this is perhaps a minor point. More important is the fact that the data are amenable to other, simpler interpretations. One could explain the immediate-memory result very readily in terms of con-

trasting items being easily noticed rather than in terms of salience of dissonance. One would, obviously, like to have better corroboration.

Let us consider some of the consequences to be expected if there does, indeed, exist such immediate post-decision salience of dissonance. Phenomenally, such salience of dissonance might be experienced as a feeling of regret, something that most of us have felt, probably, at one time or another. A person, for example, may shop around for an automobile to buy, investigate several kinds, and finally decide on which to purchase. As soon as the purchase is accomplished and final, he may very well be assailed by a sudden feeling of "Oh, my, what have I done!"

Others have noted this type of phenomenon. Lewin (1938), for example, says: ". . . frequently after the decision is made, the goal not chosen seems to be the more attractive one" (Pp. 206-7.) The existence of such post-decision regret was also noted by Festinger (1957) in his statement of the theory of cognitive dissonance. In this statement, however, Festinger probably misinterprets the phenomenon. He discusses it as perhaps a defensive reaction to avoid dissonance. He states: "Avoiding post-decision dissonance can also be accomplished to some extent by psychologically revoking the decision as soon as it is made. Thus, for example, if immediately after having made a decision, irrevocable though it may be in actuality, the person is convinced that it was absolutely the wrong thing to do, he is again preparing himself for the impact of possible dissonance and avoiding this impact." (P. 270.)

It seems much more likely that such post-decision regret is simply the manifestation of the fact that the dissonance has suddenly become salient. After all, if after the choice is made the person's attention becomes spontaneously directed mainly toward the bad aspects of the chosen alternative and the good aspects of the rejected alternative, it would seem reasonable for him to feel regret and to think that perhaps he did the wrong thing.

How can we test this interpretation adequately? After all, if such post-decision regret is due to sudden salience of dissonance, it must be a rather momentary affair in most experimental decision situations. There is certainly enough experimental evidence that very shortly after the decision one may observe an increase in

relative preference for the chosen alternative. Thus, at least for the kinds of decisions we can deal with in the laboratory, it would seem that any manifestations of post-decision regret would be observable only momentarily. The very process of rerating the alternatives after the decision may, in many cases, provide enough time for dissonance reduction to overcome the regret.

One possible test procedure suggests itself, however. If, during the period when dissonance is salient, a person were given the opportunity to reconsider, he should show some inclination to reverse his decision. Thus, if we could produce a situation in which *immediately after* having made a decision the person is asked to make the decision, we should obtain an excessive amount of decision reversal. The preceding sentence may sound like gibberish, but it is possible to approximate such a condition plausibly. Festinger and Walster report such an experiment below.

Experiment

Post-Decision Regret and Decision Reversal

Leon Festinger and Elaine Walster

The purpose of this experiment was to ascertain whether or not there is a tendency to reverse one's decision immediately after making it. If there is such a tendency, this would provide some evidence for the hypothesis concerning the immediate post-decision salience of dissonance.

There is, of course, some difficulty in creating a laboratory situation in which it is plausible to ask a person to make a decision twice, especially if one wants the second decision to occur with minimum time delay after the first. The idea for how to set up such an experimental situation was suggested to us by an experiment by Brehm, Cohen, and Sears (1960). In this experiment there was an attempt to obtain both pre-decision and post-decision ratings of the alternatives involved in a choice. This was done in the following way. The subject was asked to rank each of a number

of objects. He was then told that he would have a choice between the objects he had ranked third and fourth as a free gift. The experimenter asked the subject not to make his decision yet, but first to rank all the objects again. After he had finished the re-ranking, the subject was asked to make his choice.

A rather striking, and somewhat baffling, methodological problem arose in this experiment. Of a total of 49 subjects, 20 chose the object that they had originally ranked fourth. In short, 40 per cent of the subjects chose the alternative that they had considered the less attractive. While it is possible that this could have occurred simply because of very low reliability of the initial ranking, this does not seem plausible. Forty per cent seems like a very high figure.

The theoretical idea about post-decision regret suggested another explanation. The subjects in this experiment knew, when they performed the second ranking, which two objects they would be asked to choose between. The process of making the second ranking under these circumstances virtually forced them to make a choice. Since they must rank one of the two objects higher than the other, and since they know they must choose between these two objects, this ranking is close to expressing a decision. Immediately after having expressed this "decision" they were asked to choose between the two objects. It is possible that salience of dissonance following the decision expressed by the ranking procedure could account for the very high rate of decision reversals when they were asked to state their choice formally.

The present experiment, designed to test the hypothesis concerning post-decision regret, was modeled along these same lines. Subjects would be asked to rank a number of objects before being asked to make a choice. During the process of ranking, subjects in one condition would know, whereas subjects in the other condition would *not* know, which two objects they would be asked to choose between. If our hypothesis is correct, the former group would, after the ranking, experience regret and would show a high proportion of decision reversals, that is, ultimate choice of the alternative originally rated as less attractive. The latter group, of course, not knowing anything about the choice alternatives while they made the ranking, would not be making a decision and,

hence, could not experience post-decision salience of dissonance after the ranking. Hence, this group should not show as many decision reversals.

Procedure

Sixty-eight female students at Stanford University were used as subjects in the experiment. Forty-nine of these came from the course in introductory psychology, the other 19 from other courses. All subjects knew beforehand that they were to participate in some market research concerning hair styles.

Each subject was scheduled individually for the experiment. When the subjects arrived at the appointed time and place, they were led into a room through a door marked "Market Research—Duart-Clairol, Inc." The room contained several large posters advertising permanents and tints. Various hair style magazines were conspicuously displayed on a table.

Each girl was handed 12 photographs of different hair styles and told to examine them until she was familiar with all of them. After about two minutes and while the subject still had the photographs before her, she was asked to rate the attractiveness of each one. Specifically, the subject was told: "Considering your face and figure—and whatever else you would take into consideration—rate how you would feel about having your *own* hair done in each of these hair styles." The ratings were done on a 13-point rating scale on which 1 was described as "I would like to have my hair done in this style extremely much," 7 as "I don't know if I would like to have my hair done in this style or not," and 13 as "I would dislike having my hair done in this style extremely much."

When the subject had completed this initial rating of the 12 hair styles, she was given another task that consisted of choosing attractive trade names for various hair colors. The purpose of this second task was merely to fill some time with seemingly appropriate things. While the subject was thus engaged, the experimenter examined the ratings she had just completed in order to select two hair styles that the subject would later be asked to choose between. In order to have the choice be as similar as possible, psychologically, to all subjects, to avoid the use of alternatives that were actually disliked, and to prescribe a strict procedure

for the experimenter, the following criteria were used in the selection of the two hair styles:

1. Both styles had to be appropriate for the subject's hair length.
2. The two styles had to be rated exactly one unit apart on the 19-point rating scale.
3. No style rated lower than 7, the neutral point, was to be used, nor was the style rated as the most desirable to be used.

4. Among the pairs of hair styles that met these qualifications, that pair was chosen which was rated more attractive. Thus, if possible, those hair styles rated second and third best were chosen. It was not always possible to satisfy all these conditions completely. Under such circumstances, requirement 2 was sacrificed. Thus, seven subjects had alternatives separated by two units, and five subjects had alternatives separated by half a unit. These exceptions were divided as equally as possible between the two conditions.

After the experimenter had made the selection of the two hair styles that were to be used later for the choice and after the subject had completed the second task, she was asked to *rank* the 12 hair styles which she had previously rated. Rank 1 would indicate "Would most like to have my hair done in this style," while rank 12 would indicate "Would least like to have my hair done in this style." At this point the procedure for the two experimental conditions diverged.

"*No-Prior-Decision*" *Condition*. In this condition the subjects proceeded to rank the 12 pictures according to the instructions. After the ranking was completed, the experimenter said: "Now that you've finished the ranking, I can give you some information." The subject was then told that when Duart-Clairrol asked to interview psychology students, the Department of Psychology was not very enthusiastic about it. They felt that students would learn very little by participating in such an "applied" study. Hence the Department felt that the company should somehow recompense the students for their time. The company agreed to offer each participant a free haircut and hair set at a nearby salon. However, the subject was told, since the company was interested in seeing the relation between preferences and hair characteristics, she could not have her hair set in just any style. She could have her hair done in "whichever of these two styles" she preferred.

At this point the experimenter handed to the subject the photographs of the two hair styles that had previously been selected. The subject was asked to indicate which one she wanted. When the subject made her choice, the experimenter wrote it down on a "free coupon" that was given to the subject to present at the salon.

"*Prior-Decision*" *Condition*. The only difference between the procedure for this condition and the one already described was the order of events. All instructions were otherwise identical. Just as the subject took the 12 photographs and was about to begin to rank them, the experimenter said, "Oh, I might as well tell you now," and then proceeded to give her "information" identical to that in the other condition. At the conclusion of the information statement, the experimenter put paper clips on the two photographs which the subject was to choose between, so that they were clearly identifiable to the subject, and said, "Don't tell me which one you want now. We'll talk about it later. Right now, just finish the ranking." The experimenter then looked away to discourage conversation.

As soon as the ranking was completed, the experimenter asked the subject to choose the one she wanted for her free haircut and wrote the information on the free coupon as in the other condition.

Thus, in the prior-decision condition the subject knew that she was going to choose between two particular hair styles during the time that she was doing the ranking. In this condition, then, the rank order of those two hair styles is an expression of a decision by the subject. In the no-prior-decision condition, on the other hand, the subject did not even know she was to make a choice while doing the ranking. Thus, for this condition, the first time the subject made a decision was when she was asked to indicate her choice at the completion of the ranking.

In both conditions, after the subject had indicated her choice and had been given her free coupon, she was asked to evaluate the 12 hair styles once more on rating scales identical to those used for the initial rating. The excuse used for this second rating was that the "company thought it was possible that the girls' preferences might be influenced by the academic setting we're in." The experimenter then asked the girl to think about dorm friends and activities for a few seconds to "get into a dorm-like mood" and then to do the ratings.

After the completion of these final ratings, the experiment was over. The purpose of the experiment was fully explained to each girl.

Results

Our main interest in the data is to compare the initial ratings made by the subject with the hair style she finally chose. The reader will recall the theoretical expectations concerning this. Subjects in the prior-decision condition, at the time they are asked to state their choice, should be experiencing salience of post-decision dissonance, since, in essence, they have just expressed their decision in the ranking. Consequently, one would expect that there would be a higher incidence of decision reversal in this condition than in the no-prior-decision condition. A decision reversal would be an instance in which the subject, when asked finally which style she wanted, chose the hair style that she had initially rated as less attractive. In short, post-decision regret, if it existed, should lead to tendencies toward decision reversal.

The data are quite clear on this matter. In the no-prior-decision condition, out of a total of 96 subjects, ten (28 per cent) chose the less attractive alternative. In the prior-decision condition, out of a total of 32 subjects, 20 (62 per cent) chose this less attractive alternative. The difference is highly significant. Chi-square is equal to 8.33, significant beyond the 1 per cent level. In short, the prior-decision condition does indeed show a high incidence of decision reversal. We may take this as evidence that post-decision regret is, indeed, a general occurrence.

One can, of course, question why the percentage who choose the initially less attractive alternative is so high in the no-prior-decision condition. The figure of 28 per cent decision reversals might be due simply to the unreliability of the initial ratings, or it might be due to some unknown aspect of the procedure that somehow encouraged this kind of behavior. If the latter were true, it could raise a serious question about our interpretation of the data. Consequently, the chance expectation of choosing the initially less attractive alternative was computed on the basis of unreliability of the initial rating. This was done in the following way. Changes from the initial rating to the final post-decision rating were tabulated for all hair styles not involved in the choice that had been

rated initially between 2 and 7 on the rating scale. In other words, we examined the changes in ratings of hair styles that were initially rated at the same levels as those used for the choice but which had themselves not been used for the choice. We could then compute the probability of a reversal occurring between any pair of ratings, that is, between a pair initially rated 2 and 3, between a pair initially rated 3 and 4, and so on. Weighting each of these probabilities according to the distribution of such pairs in the actual choices that were presented to the subject, we calculated the chance expectancy of choosing the less attractive alternative. Both conditions are virtually identical in this regard. For the no-prior-decision condition one would expect 35 per cent to choose the initially less attractive alternative simply because of unreliability of rating. The corresponding figure for the prior-decision condition is 37 per cent.

It turns out that the incidence of actually choosing the less attractive alternative in the no-prior-decision condition is fully compatible with the unreliability of the rating. Actually, it is slightly, and insignificantly, less than chance expectation. The incidence of decision reversal obtained in the prior-decision condition, on the other hand, is significantly greater than the chance level ($\chi^2 = 8.78$, significant at less than the 1 per cent level).

It will have occurred to the reader to ask about the extent to which the reversals that occurred were already apparent in the ranking that was done before the subject was expressly asked to choose. The data show that for both conditions slightly more than half of the reversals are already present in the ranking. This, however, is not a very revealing result. Many subjects, after having ranked their hair styles, went over them again, changing the rank positions of some of the styles. Many of the reversals due to post-decision regret in the prior-decision condition occurred at this point. Indeed, the fact that the procedure allowed this immediate response to the salience of dissonance probably contributed to the success of the experiment. It is of interest, however, that there was an almost total absence of "re-reversals." That is, only three subjects in the entire sample reversed from the initial rating to the ranking and then reversed again by choosing the one initially rated higher. This may indicate that the regret phenomenon is, indeed, fleeting and does not produce an unending sequence of reversal tendencies.

It is also of interest to inquire into the pattern of post-decision dissonance reduction shown by the two experimental conditions. After all, the period of salience of dissonance must be a relatively brief one in this situation and, given a little bit of time, dissonance reduction should show itself. By the time of the final post-decision rating of the hair styles one should be able to observe the usual post-decision systematic re-evaluation of alternatives.

We might expect to find a difference between the two conditions, however. In the prior-decision condition, having made their decision during the ranking, the subjects have had more time to recover from the post-decision regret and, hence, might be expected to show a larger dissonance-reduction effect by the time of the final rating. Table 5.1 presents the data for the two conditions on the initial rating and the final rating of the chosen and rejected alternatives. The last column in the table presents the usual measure of dissonance reduction, namely, increase in attractiveness of the chosen alternative plus decrease in attractiveness of the rejected alternative.

There is a problem in examining such data in this experiment that was primarily designed for a different purpose. This problem arises because of the different number of reversals in the two conditions. It is quite obvious that those who reverse, that is, who choose the initially less attractive alternative, will have appreciably larger dissonance-reduction measures than those whose choices are consistent with their initial rating. Consequently, if we simply looked at the data for each condition as a whole, there would be an effect favoring the prior-decision condition, since there were many more reversals in that condition. Table 5.1, consequently, shows the data separately for those who reversed and those who did not.

It is clear from an examination of the data that irrespective of experimental condition and of whether the choice was consistent with, or a reversal from, the original rating, there is evidence of dissonance reduction by the time of the final rating. In all cases the dissonance-reduction measures are significantly different from zero at or beyond the 5 per cent level. Also, of course, the dissonance-reduction measures are larger for the "reversal" subjects than for the "consistent" ones. This is trivial, however, since simply having the final ratings consistent in direction with the choice would produce a large number.

TABLE 5.1
*Comparison of Average Initial and Final Ratings of the
Chosen and Rejected Hair Styles*

	Initial Rating		Final Rating		Dissonance Reduction
	Chosen	Rejected	Chosen	Rejected	
Consistent Choice					
Prior Decision (N = 12)	3.6	4.7	2.6	5.1	+1.4
No Prior Decision (N = 26)	3.5	4.6	2.9	4.8	+0.8
Reversal Choice					
Prior Decision (N = 20)	5.0	4.0	3.2	4.6	+2.4
No Prior Decision (N = 10)	4.6	3.6	3.4	3.8	+1.4

Of greater interest is the comparison between the two experimental conditions. Regardless of the direction of the choice, the subjects in the prior-decision condition show greater dissonance reduction than those in the no-prior-decision condition. However, neither the difference for the consistent choice subjects nor that for the reversal choice subjects is significant, although the latter approaches significance with a t of 1.51. No attempt was made to push the statistical analysis farther considering the huge difference between the two conditions in type of decision. We are content simply to accept the results as suggesting that it takes time to recover from the post-decision regret.

While the data certainly support the notion of post-decision salience of dissonance, we should examine whether or not there are plausible alternative explanations. At least one other possible explanation suggests itself. In the prior-decision condition, the effect of knowing during the ranking which two they would be asked to choose between may have been to focus attention on the two critical hair styles for a longer time and may have induced more detailed examination and consideration of these two styles. Given the fact that the initial ratings are relatively unreliable, such increased attention and consideration might have produced

the obtained effect. Perhaps the more the two hair styles were considered, the more likely it would be for new considerations to enter, thus increasing the likelihood of choosing the alternative originally rated as less desirable.

In order to check on the validity of this alternative explanation, another experimental condition was run which we may call the "attention-focusing" condition. The procedure here was identical to the procedure for the other two conditions except that the step of ranking the 12 hair styles was omitted. In its place a procedure was substituted to focus the subject's attention on the two styles that were to be used for the choice. The girl was told that the company was interested in more detailed descriptions, and more detailed reactions, to a few of the hair styles. She was handed one of the photographs and asked to comment in detail on it. She was then handed another and was similarly encouraged to react to it in detail. Altogether, four photographs were thus commented on. At the conclusion of these descriptions, she was given the same "information" as in the other experimental conditions and was asked to make a choice between two of the hair styles that she had reacted to in detail. In short, in this condition the subjects did not make any prior decisions but had their attention focused on detailed consideration of the alternatives that they were later to choose between.

Nineteen girls were run in this condition. Four out of the 19 (21 per cent) chose the alternative that they had originally rated as less attractive. Clearly, the alternative explanation is not valid. At least in this situation, focusing attention and detailed consideration did not induce a greater number of reversals.

Since the attention-focusing condition was run later than the other two experimental conditions, we also, at the same time, assigning subjects at random, ran seven additional girls each in the no-prior-decision and the prior-decision conditions, simply to be sure that the effect we had obtained was still operating. Although the number of cases here is too small for statistical significance to show itself, the results closely duplicate what had previously been obtained in these conditions. In the no-prior-decision condition, two out of the seven girls (29 per cent) chose the less attractive hair style. In the prior-decision condition, four out of the seven (57 per cent) showed decision reversal.

Summary

Two experimental conditions were run in order to test a hypothesis concerning post-decision salience of dissonance. Girls were given a choice of which of two hair styles they wanted for a free hair setting. In one condition the subjects had already made a "decision" by ranking one as more desirable than the other before they were asked to indicate their choice. In the other condition no decision had been made before they were asked, formally, to make one. It was reasoned that in the former condition, post-decision regret would exist when they were asked to make their choice, and that this would be reflected in a high incidence of decision reversals.

The data support this hypothesis concerning post-decision regret. In the prior-decision condition there were significantly more decision reversals than in the no-prior-decision condition. In order to make sure that this result was not obtained because of different amounts of attention paid to the alternatives, another experimental condition was subsequently run. No prior decision was made in this additional condition, but the subjects were induced to give a lot of attention to the hair styles that were to be involved in the choice. The incidence of decision reversal was quite low in this condition. It seems plausible to maintain that following a decision there is a sudden salience of dissonance that is experienced as regret about the decision.

It is fair to say that, considering the results of the Festinger and Walster experiment, we have some evidence that there does occur a period of post-decision regret. But how compelling is this evidence? In general, there are two things that affect the extent to which certain data compel us toward a specific theoretical interpretation. The first, and the most important, is the availability of alternative explanations that are equally good or better. It is, indeed, difficult to think of adequate alternative explanations for the results of the Festinger and Walster experiment and, to this extent, the data seem reasonably compelling. There is, however,

a second factor. Although it may be difficult, or even impossible, to construct an adequate alternative explanation immediately, one may have various degrees of confidence that a better alternative interpretation will soon be invented. If such a belief is strong, one usually does not regard the data as compelling, regardless of the current dearth of alternative explanations.

Let us examine the Festinger and Walster experiment from this point of view. Although it is rather straightforward and simple from a methodological point of view, it is a highly complicated experiment from a theoretical point of view. The interpretation in terms of post-decision regret rests upon the assumption that once a person knows that he will be asked to choose between two alternatives, the action of ranking these two, together with several others, forces him to make a decision between them. It further assumes that such a "decision," even though it is not a formal one, and even though it is clearly revocable, initiates the same post-decision processes as an actual choice. These assumptions, inherent in the "regret" interpretation of the experiment, may turn out to be questionable.

Another problem exists also. The Festinger and Walster experiment does not have a direct measure reflecting post-decision regret. Instead, the experiment relies on the reasoning that if a sufficiently large number of people experience a sufficiently large magnitude of post-decision regret, then we will observe a large enough frequency of actual decision reversal. The measure employed, namely, the relative frequency of choosing the alternative originally rated as less attractive, is a rather indirect measure. In short, because of the assumptions involved in interpreting the procedure, and because of the indirectness of the dependent variable, the results are not very compelling with respect to the hypothesis about salience of dissonance.

Certainly, a more direct test of the hypothesis should be possible. If there is a temporary period of regret following a decision because of immediate post-decision salience of dissonance, one should be able to observe directly that at some point, soon after the decision, the chosen alternative has become less attractive and the rejected alternative has become more attractive. One should also be able to observe that this phase of the post-decision process is followed by dissonance reduction and the spreading apart of the attractiveness of the alternatives. If one could show this directly

in an experiment, it would certainly lend considerable weight to the whole idea of post-decision regret.

There are obvious difficulties connected with doing such an experiment in the laboratory. Probably, in order to demonstrate the temporal sequence of regret followed by dissonance reduction, one requires a situation in which the post-decision dissonance is very large, the decision very important, and dissonance reduction rather difficult. In this type of situation it seems reasonable to suppose that the immediate post-decision salience of dissonance would be marked enough to show itself clearly in ratings and, if dissonance reduction is difficult, the regret would last for a long enough time to be measurable. It is clearly not easy to construct this kind of decision situation in the laboratory. The experiment reported next by Walster represents a compromise between the laboratory and real life. It is a rather successful attempt to use an important, real decision in a relatively controlled manner for experimental purposes.

Experiment

The Temporal Sequence of Post-Decision Processes

Elaine Walster

This experiment was performed in order to obtain evidence bearing directly on the hypothesis that immediately following a decision there is a temporary period in which the person experiences regret. The clearest and most direct way in which this hypothesis can be examined is to have subjects make a decision and then to remeasure the attractiveness of the alternatives at varying intervals of time following the decision. If the regret phenomenon occurs, one should find that in a period soon after the decision the chosen alternative becomes *less* attractive and the rejected alternative *more* attractive than they had been before the decision. After this, of course, if the theory is correct, one would obtain the usual evidence of dissonance reduction.

The consideration of such a design, however, brings us face to face with a difficult problem. There have been many studies con-

cerned with post-decision dissonance reduction, all of which have remeasured the attractiveness of the alternatives very soon after the decision. They have all yielded evidence that dissonance reduction occurs. Clearly, if we are to maintain the hypothesis about the regret period in the face of the evidence from these experiments, we are forced to contend that, at least in those experiments, the regret period was very fleeting indeed. The question of design then becomes: How can we construct a decision situation in which the regret phase in the post-decision process is relatively long-lasting?

If one examines the characteristic situation used in previous experiments, some clues concerning the answer to this question may be obtained. Typically, these experiments have presented subjects with a choice between two alternatives, both of which were positive in nature and possessed no negative attributes at all. If a person is offered a choice between two phonograph records as a gift, for example, even if one of them is not very well liked, there is nothing negative about having it. At a minimum, if the person does not like the gift he gets, he can throw it away and he is no worse off than before. In addition, of course, the decision is not a very important one for the person. It has few consequences of any lasting nature for him. It seems reasonable to conjecture that in this kind of situation dissonance reduction proceeds very rapidly and regret is very momentary.

The attempt was made, consequently, to find a situation in which subjects could be offered a decision between alternatives that had both positive and negative aspects, that would be reasonably important to the subject, and in which the decision would have lasting consequences. Furthermore, one would want to be able to employ this decision situation in a well-controlled context. It would be necessary to measure the attractiveness of the alternatives before the decision and, assigning subjects to conditions at random, remeasure the attractiveness at different lengths of time after the decision. One would also want to control the activity of the subject and his interactions with others during the entire period between initial measurement and final measurement.

Fortunately, we were able to obtain the cooperation of the Sixth Army District Reception Center at Fort Ord, California. Arrangements were made to use as subjects in the experiment men who were drafted into the Army. They were each to be given a choice

of which of two occupational specialties they wanted to be assigned to for their two years in the service. Certainly, such a decision, affecting two years of their lives, is reasonably important; the descriptions of the occupational specialties could be written so as to emphasize both positive and negative aspects of each alternative; and dissonance reduction in this situation should not be a particularly easy affair. In short, this seemed a reasonable situation for testing the validity of the hypothesis about post-decision regret. The details of, and the reasons for, the experimental procedure are given below.

Procedure

Two hundred and seventy-seven draftees who reported for processing at the Fort Ord Reception Center were used as subjects. Each subject was run in the experiment within a day or two of his arrival at the Reception Center—before he had gone far enough in his initial processing to have any information about his probable job assignment in the Army. Men who had enlisted, or who for any other reason had something to say about their job assignment, were excluded from the sample. Men were made available for the experiment on weekends and on days when there were so many arrivals at the Reception Center that not all of them could be processed. In this way, the study did not interfere with the normal processing activity at the Reception Center, nor did it prolong the time any man spent there.

The Army personnel were asked to select men to assign to the study who had had at least some high school education but who had not completed college. It was felt that the job selections to be offered would be most appropriate for men with intermediate education. Frequently, however, information on educational level was not available to the Army personnel at the time they assigned men to the study and so this selection on educational criteria was not rigorous. In our total sample, six subjects had had no high school education at all and fifteen had completed college.

Early in the course of running the experiment it was realized that most of the alien draftees and many of the Spanish-speaking men had difficulty understanding the instructions and had trouble in making the ratings required of them. Consequently, we requested the Army personnel to exclude such subjects in the future.

Nineteen Spanish-speaking and four alien draftees who had already been run in the experiment were discarded from the sample.

Five subjects at a time were run through the experiment. A uniformed driver met the five men at the Reception Center and drove them to the experimental building, about ten minutes away. During the drive he told them that they had been randomly selected for a special job placement program that the Army was conducting and that they would receive a definite job assignment some time during the day. The driver also commented that although the jobs the special placement program had to offer were, perhaps, not as good as those they might have in civilian life, they were better than those the men could hope to get under the regular job placement program. These comments were intended to make the men believe that, whatever job they were assigned that day, it was definite and as good as or better than anything else they could get.

As soon as the driver arrived at the experimental building, he assembled the men and introduced them to the two experimenters standing in the doorway.

Experimenter 1 then explained to the men:

As he has probably told you, we're working for the Army on a special experimental program of job placement. You were more or less randomly selected from men in your educational category. Today, I'm going to interview each one of you. I can only see one of you at a time, so while you're waiting for your interview, Miss Turner (Experimenter 2) will be getting some other necessary information from you. She'll ask you to fill out some questionnaires concerning the kind of jobs you've held, the things you like and dislike in a job, and so forth.

O.K. [Pointing to the closest man] I'll be seeing you first. Miss Turner will tell the rest of you what to do.

The first subject was then led into the large room where Experimenter 1 conducted all the interviewing. Experimenter 2 took each of the other four men to separate small cubicles in the experimental building. When all four men had been seated, Experimenter 2 distributed Questionnaire 1 which asked the men about their previous job and educational experience.

At the same time, in the main experimental room, Experimenter 1 asked the first subject to be seated. On the table in front of the subject's chair was a large chart titled "How Much Would You Like to Work at This Job in the Army for the Next Two Years?"

Underneath the title was a 31-point scale. The highest point on the scale (Point 1) was labeled "Would like extremely much." Point 31 was labeled "Would dislike extremely much."

Experimenter 1 then explained to the subject:

Today we're interested in getting a fairly precise idea of how attractive a number of jobs that the Army is especially interested in seem to you. So, I'll tell you a little bit more about 10 different jobs. I'd like you to think about these jobs and decide how much you'd like to work at each one during your next two years in the Army. Do take into account all those personal things and preferences that make you want one job more than another. You will be assigned to one of these jobs, and I'll be able to tell you which one you got before you leave today.

To help you to give us a pretty clear idea of how you feel about each of these jobs, we've made up this scale.

The scale on the chart was then explained to the subject; some civilian job titles, printed on arrow-shaped cards, were placed at various points on the scale by the experimenter to demonstrate further how the scale was to be used. At this point, the subject was encouraged to ask questions.

Experimenter 1 then picked up a packet of 10 arrow-shaped cards, each having an Army job title and job description printed on it. She told the subject:

Now whichever of these jobs you're assigned to, you will have to go to school for from six to eight weeks to learn how to do that job in the Army manner.

Now I'll read the job description that's printed on each arrow along with you. Then take your time and decide how much you like each job, and then put the arrow at the right spot. If you should change your mind as we go along, and feel that some job should be rated higher or lower, naturally, it's all right to change that job's position. However, it's probably a good idea to reread the description of the job you're thinking of changing, because sometimes the reason you think you've made a mistake is that you've forgotten some of the things that are involved in the job.

Take as much time as you want. We're anxious to get a really accurate idea both of how much you like each job relative to the others, and how much you like each job absolutely; that is, exactly at which of the points on the scale you think it belongs.

Experimenter 1 then read the 10 job titles and descriptions to the subject, pausing after each description so the subject could place a titled arrow at the appropriate point on the scale.

These job descriptions were written so that each job appeared to have a few really desirable and a few really undesirable features. It was hoped that this obvious mixture of good and bad elements in each job would increase the amount of dissonance subjects experienced and make dissonance reduction more difficult.

When the subject had finished placing all 10 job arrows, the experimenter suggested:

Now that you've seen all the jobs, it's probably a good idea to reread the job descriptions and make sure you get everything just where you want it. Sometimes we just can't give you the jobs you like most, and so we'd like to know how you feel about every one of the jobs.

When this subject had finished his final ratings of the jobs, Experimenter 1 took him to a separate cubicle and then returned to the large experimental room to record where on the 31-point scale he had rated each of the 10 jobs. This initial interview usually took 12 to 15 minutes.

Experimenter 1 then called in the second subject from his cubicle to the large experimental room and followed a procedure identical to that followed for the first subject. At the same time, Experimenter 2 asked Subject 1 to fill out Questionnaire 1, which the other subjects had completed earlier, and asked Subjects 3 through 5 to fill out Questionnaire 2.

Approximately every 15 minutes another subject was interviewed by Experimenter 1 and the remaining subjects were given the next in a series of four questionnaires to fill out. The purpose of these questionnaires was primarily to keep the subject occupied while Experimenter 1 was interviewing the other men. Also, the questionnaires, taken from material contained in the subtests of the Strong Vocational Interest Inventory, helped make the later job selection seem more plausible.

Subjects filled out questionnaires and were interviewed according to the following sequence:

Time	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5
Schedule	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5
1st 15 min.	Interview	Ques. 1	Ques. 1	Ques. 1	Ques. 1
2nd 15 min.	Ques. 1	Interview	Ques. 2	Ques. 2	Ques. 2
3rd 15 min.	Ques. 2	Ques. 2	Interview	Ques. 3	Ques. 3
4th 15 min.	Ques. 3	Ques. 3	Ques. 3	Interview	Ques. 4
5th 15 min.	Ques. 4	Ques. 4	Ques. 4	Ques. 4	Interview

The purpose of the initial interview was to obtain a measure of how each subject evaluated each job before he was faced with a decision. The next step was to select two jobs and to offer the subject a choice between them. Ideally, it would have been desirable to offer each subject a choice between jobs that he had rated near the middle of the scale, with the initial ratings separated by a constant amount and identical for all subjects. To approach this as closely as possible without discarding too many subjects, Experimenter 2 examined the initial ratings of each subject and selected the two jobs he should be offered according to the following criteria:

1. The job the subject liked best was never used as one of the alternatives for choice. Similarly, none of the three least attractive jobs was used. When possible, the next to the most attractive job was also avoided.
 2. No job rated above 6 on the attractiveness scale ("Would like very much") or below 18 (between "Would like and dislike equally" and "Would dislike fairly much") was ever offered as one of the two choice alternatives.
 3. Within the above restrictions, two jobs were selected to offer the subject that were rated approximately five units apart on the 31-point scale. If there were no two jobs rated five units apart that satisfied the other criteria, jobs rated six units apart were used. If this too were not possible, jobs rated four units apart, seven units apart, or three units apart were used.
- If none of these conditions could be met, the subject was not used in the experiment. Altogether, ten subjects were discarded because no pair of jobs could be offered them under the above set of restrictions.
- After Experimenter 2 had made the selection of which jobs should be offered to each subject, Experimenter 1 called the first subject back into the experimental room.
- She stated:

Well, by now we can give you some definite information about your Army assignment for the next two years. We've examined all the preferences you expressed to me, the scores on the tests you took for Miss Turner, and considered your background information and job experience. You understand that in the Army, job assignment is in large part determined by what jobs the Army has to fill at any given time. In this experi-

mental job placement program, we are trying to work out a really good compromise between what you can do, what you want to do, and what jobs we have to fill. The very best we can do for you, considering your test scores and the Army's needs, is to offer you a choice between these two jobs.

Experimenter 1 then handed the subject the arrows (containing job titles and job descriptions) for the two jobs between which he was to decide and reread the descriptions to him.

Experimenter 1 then concluded: "As soon as you decide which of the two jobs you want, tell me. I can definitely assign you to whichever one you choose for your time in the Army."

If the subject asked why he had not been offered the job he ranked first in the initial interview, Experimenter 1 told him that the main determinant could have been his test scores, the Army's current needs, or the qualifications of the other draftees. For specific information he was told that he would have to see Miss Turner. It was stressed, however, that these were the only jobs available to him.

Subjects were randomly assigned to one of four experimental conditions, the only difference between the conditions being the interval of time allowed to elapse between the decision and the rereasurement of the attractiveness of the jobs. One-fourth of the subjects rerated the jobs immediately after the decision. The others rerated the jobs after an interval of four minutes, 15 minutes, or 90 minutes.

If the subject was assigned to the "Immediate Condition," the experimenter continued:

O.K. There are a couple of other things I'd like you to do. The next thing I'd like you to do will in no way affect your Army assignment, but it will help us in developing and improving our job placement program.

By now you've had quite a bit of time to think about these jobs [pointing to the 10 jobs], and jobs in general, and you've probably thought of a lot of things that make a job good or bad that just didn't occur to you before. What we'd like you to do is to rerate all these jobs now that you've had a reasonable length of time to think about them.

The subject was then handed a 10-page questionnaire, each page exactly like the chart on which he had rated the jobs during his first interview.

Experimenter 1 continued:

The scale they've provided is just like the one you used earlier, only there's a separate rating page for each job. If you'd write the job number up at the top of each page, we'd know which one you are talking about. Then just draw an arrow at that place which most accurately represents how you feel about each job, *right at this moment*.

If the subject had been assigned to the four-minute, 15-minute, or 90-minute condition, then, after saying "O.K. There are a couple of other things I'd like you to do," Experimenter 1 added, "but there's some work I have to do first. If you'd just wait 'right here' (four-minute condition), or 'across the hall in your room' (15-minute and 90-minute conditions), I'll get back to you just as soon as I can. Sometimes it takes quite a while. Don't worry, I haven't forgotten you." The experimenter then left the subject alone with nothing to do for the appropriate number of minutes.

When Experimenter 1 returned (after four minutes, 15 minutes, or 90 minutes), she followed the same procedure described for the immediate condition.

Results

If the phenomenon of post-decision regret is a real one, and if evidence of it exists in this experiment, it should be reflected in a drawing together of the two alternatives soon after the decision is made. That is, sometime in the immediate post-decision period the chosen alternative should *decrease* in attractiveness and the rejected alternative *increase* in attractiveness. This, of course, should be followed by the usual spreading apart of the alternatives that is the normal evidence of dissonance reduction.

The experiment was designed in ignorance, of course, of the time interval at which post-decision regret would be at its maximum. That is, it was theoretically conceivable that regret would be seen as soon as the decision was made. It was also theoretically conceivable that it could take a little time before the regret would develop to measurable quantities. For this reason we included an immediate condition, a four-minute-delay condition, and a 15-minute-delay condition. Conceivably, it could take as long as 15 minutes, or even longer, for regret to develop. We simply did not know ahead of time. The 90-minute condition was included to make sure that we had at least one interval long enough for recov-

ery from regret to occur and for the effects of dissonance reduction to be evident. The interval of 90 minutes was chosen as the longest time that it seemed at all feasible to keep a person sitting alone in a small room with nothing to do but wait.

Before we look at the data, there is one decision that must be made about the analysis. Of the 244 subjects from whom usable data were obtained, 51 (21 per cent), when asked to make a choice, chose the job that they had originally rated as the less attractive of the two they were offered. This is, of course, a rather high percentage of such inversions. In any experiment of this type a certain number of inversions will occur because new considerations of a major character occur to the subject between the time of making the rating and the time of making the decision. There are also, usually, some subjects who make the ratings on a rather abstract basis, but who, when faced with the decision, suddenly consider the alternatives in a new light of reality. In addition to this, in the current experiment there were undoubtedly many subjects who simply did not understand the rating scale fully, some who did not listen to or did not adequately comprehend the job descriptions, and some who were simply not interested. It must be remembered that the subjects comprised a very heterogeneous population, many of them being run through the experiment on the very first day that they reported to the Army Reception Center.

Whatever the reasons for the inversions, they represent a difficulty for analysis. It represents something of a distortion to disregard them or simply to throw them together for analysis with data from other subjects. Since there are so many subjects who show inversions, their data will be presented separately. Since these subjects come about equally from all conditions, this does not interfere with any comparison among the four conditions and, by presenting their data separately, we can determine whether they show the same trends as the other subjects. The data for the 193 subjects who chose the alternative they had rated as *more* attractive will be presented first, and then the other data will be examined for comparison.

Table 5.2 presents the data on ratings of the chosen and rejected alternatives for the major portion of the sample, namely, those who chose the job they had originally rated as more desirable. The first two columns of figures show the pre-decision ratings of the

TABLE 5.2

Mean Ratings of Chosen and Rejected Alternatives for Subjects Who Chose the More Attractive Job

Experimental Condition	Pre-Decision Ratings		Change from Pre-Decision to Post-Decision Ratings		Change in Discrepancy
	Chosen	Rejected	Chosen	Rejected	
Immediate (N = 48)	9.80	15.09	.70	.00	.71
Four Minutes (N = 48)	9.79	15.02	-.37	-.97	-1.34
Fifteen Minutes (N = 48)	10.04	14.98	1.56	.58	2.14
Ninety Minutes (N = 49)	9.91	14.84	.67	-.36	.31

NOTE: Change scores are indicated as positive if they are in the direction of dissonance reduction and as negative if they are in the opposite direction. Thus, changes toward greater attractiveness of the chosen alternative and toward less attractiveness of the rejected alternative are scored as positive changes.

two alternatives. It is, of course, no surprise that these figures are so similar from condition to condition, since there were rather narrow limits within which the two jobs offered could have been rated and, in addition, subjects were assigned to conditions at random. The third and fourth columns of figures show the changes from the pre-decision to the post-decision ratings of each alternative. The last column shows the total amount of dissonance reduction that occurred.

A glance at the figures in this last column of Table 5.2 shows that there is, indeed, a period of post-decision regret followed by appreciable dissonance reduction. In the condition in which the alternatives were rerated immediately after the decision, there is a relatively small change of .71 in the direction of dissonance reduction, a change that is not significantly different from zero ($t = 1.38$). Those subjects who rerated the jobs after a four-minute delay period show the opposite of dissonance reduction, namely, regret. In this condition the chosen alternative decreases in what in attractiveness while the rejected alternative increases in

attractiveness. The total change of -1.34 is significantly different from zero at the 7 per cent level ($t = 1.80$) and significantly different from the change obtained in the immediate condition at the 2 per cent level ($t = 2.26$).

It does, then, seem that in this experiment evidence of post-decision regret exists and that it takes a little time for this regret phenomenon to show itself. If one examines the data for those subjects who rerated the jobs after a delay of 15 minutes, one observes, furthermore, that the period of post-decision regret is, indeed, a temporary one. After 15 post-decision minutes have elapsed there is no more evidence of regret but rather clear evidence of the usual dissonance reduction. By this time the chosen alternative is rated as more attractive and the rejected alternative as less attractive than they were initially. The total change of 2.14 is significantly different from zero ($t = 2.90$) and from the four-minute condition ($t = 3.32$). It is clear that we did, indeed, obtain post-decision regret followed by dissonance reduction. The various experimental conditions are significantly different from one another in a clear and unequivocal manner. For example, an analysis of variance on all four experimental conditions yields an F of 3.99 , which, for three and 189 degrees of freedom, is significant beyond the 1 per cent level.

The data for the go-minute-delay condition, however, provide a rather surprising result. Instead of continuing to obtain dissonance reduction equal to or greater than that obtained in the 15-minute-delay condition, one finds that after 90 minutes have elapsed there is no evidence of any dissonance reduction at all. The change of $.31$ is not significantly different from zero and, because of increased variability in this condition, is not clearly different from either the 15-minute condition ($t = 1.69$) or the four-minute condition ($t = 1.52$). It is difficult to understand this result, although there are some good hunches that can be offered. We will, however, postpone our discussion of the perplexing go-minute condition temporarily.

Let us first turn our attention to the data obtained from those subjects who chose the job they had initially rated as the less attractive of the two they were offered. These data are presented in Table 5.3. It is clear from a glance at the last column in the table, which presents the total change in discrepancy between the

TABLE 5.3
*Mean Ratings of Chosen and Rejected Alternatives for
Subjects Who Chose the Less Attractive Job*

Experimental Condition	Pre-Decision Ratings		Change from Pre-Decision to Post-Decision Ratings		Change in Discrepancy
	Chosen	Rejected	Chosen	Rejected	
Immediate (N = 12)	14.78	10.18	4.70	2.03	6.73
Four minutes (N = 13)	14.93	10.62	1.58	3.53	5.11
Fifteen Minutes (N = 13)	14.46	10.03	3.50	3.62	7.12
Ninety Minutes (N = 13)	15.04	10.56	2.99	2.44	5.43

two alternatives, that the absolute magnitude of these changes is very large. Undoubtedly, this is simply a reflection of the fact that for these subjects the initial rating is relatively meaningless. For these data one must simply ignore the absolute magnitude of the results and look just at the comparison among conditions. It may be seen that the results go in exactly the same direction as the previous results we discussed. From the immediate condition to the four-minute condition the change in discrepancy decreases, from four minutes to 15 minutes it increases, and by 90 minutes it has decreased again. The numbers of cases are rather small, and the variability for these subjects is quite large. None of these differences is statistically significant. The only point to be made is that these subjects show largely the same pattern of results as the others, even duplicating the perplexing problem of the go-minute condition.

What are some of the possible reasons for the results from the go-minute condition? The first inclination, on obtaining a result that is so surprising from a theoretical point of view, is to suspect some purely technical methodological inadequacy. In this particular experiment there is a natural inclination to suspect that in the go-minute condition, the very long period of sitting alone

in a small room with nothing to do may have introduced boredom, anger, resentment, or any of a number of other factors that might have contributed to the obtained result. This may or may not be true, but the best judgment we can make is that it is not true. Let us look closely at some aspects of the "boredom" explanation to see why this judgment seems reasonable.

It is conceivable that after 90 minutes of sitting along in a small room, these subjects felt angry with the Army. This experience may have confirmed all their worst expectations, with the result that they may have felt that everything in the Army is terrible, including the possible jobs. If this explanation had any validity at all, we would expect that the average post-decision rating of the jobs not involved in the choice would be considerably lower for subjects in the 90-minute-delay condition than for subjects in the other conditions. This, however, is not the case. The average post-decision ratings of the jobs not involved in the choice were 15.89, 15.35, 15.51, and 15.51 for the four conditions—differences which are certainly indistinguishable from one another.

Another possible aspect of the "boredom" explanation is that being bored and having lost interest in the whole proceeding, the subjects in the 90-minute-delay condition stop discriminating among jobs on the post-decision ratings. That is, out of boredom or, perhaps, anger, they make their second ratings in a perfunctory manner, essentially saying that everything is the same. To check on this possibility we computed the standard deviation of each subject's post-decision ratings of the jobs. If they stopped cooperating and stopped discriminating among jobs, we would expect this to be reflected in a smaller dispersion of the individual's ratings. This again is not true. The four conditions are almost identical.

Nowhere could any evidence be found to support a contention of methodological inadequacy in the 90-minute condition. Consequently, we have come to the conclusion that it is probably a real effect. But if it is a real effect, what does it mean? Is dissonance reduction just a temporary matter? This seems unlikely. Although there has been little done concerning long-range effects of dissonance reduction, what we do know would certainly argue against the disappearance of all effects within 90 minutes. Ninety minutes may be a long time to sit doing nothing in a room but, after all,

it is a short amount of time in which to expect a rather pervasive process to be completely nullified.

This still, however, leaves us with no answer to the perplexing result of the 90-minute condition. And we can give no good answer—not in the sense of an answer that can be supported with data. We can, however, offer what seems to us to be a good hunch. We think the answer lies in the great difficulty of reducing dissonance in this experimental situation. Let us look at this more carefully. In choosing this particular context for doing this experiment, we were motivated primarily by our intuitive notions concerning the conditions under which regret would be rather pronounced and would last for a sufficiently long time so that we could measure it. Intuitively, it seemed to us that this would happen if the decision were important, the alternatives possessed a mixture of good and bad characteristics, and dissonance reduction was very difficult. The idea was that under such circumstances the post-decision dissonance would be large and, if dissonance reduction were difficult and took time, that focusing on the dissonance in order to reduce it would produce the regret phase. If dissonance reduction were too easy, the regret phase might be very fleeting.

We were probably very successful in creating a situation in which dissonance reduction was, indeed, difficult. At least we know that we did obtain a period in which post-decision regret appeared. We probably created a situation in which only a limited amount of dissonance could be reduced by most subjects. Under most ordinary "real-life" circumstances, the person would go talk to others about it, seek new information, and generally try to get informational and social support for the process of further reducing dissonance. In our experiment this was impossible. The person was left entirely on his own resources. There was no new information obtainable and there was no one else he could even talk to about it. It is possible that after some dissonance had been reduced, the continued focusing on the remaining dissonance without further successful dissonance reduction could produce the effect obtained in the 90-minute condition.

If this is the correct explanation, there are certain implications. If one were to set up a situation in which dissonance reduction was even more difficult, almost impossible, the effect of focusing on and unsuccessfully trying to reduce the dissonance might result in a steady increase in the importance of the dissonance and a

steady narrowing of the discrepancy between the alternatives. If in our experimental situation the subjects had been provided with more leeway, people to talk to, things to read about the Army and its jobs—anything that would have aided dissonance reduction—the results of the go-minute condition might have been different.

Summary

An experiment was conducted to test the hypothesis that:

1. Shortly after having made a decision, the subject, because of the salience of dissonance, will experience a period in which the chosen alternative seems less attractive and the rejected alternative more attractive than they were prior to the decision.

2. This "regret" period will be followed by the customary dissonance-reduction process and the spreading apart of the alternatives in terms of attractiveness.

The subjects in the experiment had to make a decision that was rather important and would affect two years of their lives. Ratings of alternatives were obtained immediately after the decision for some subjects, four minutes afterward for some, 15 minutes afterward for others, and 90 minutes afterward for still others.

The data showed clear evidence of "regret" four minutes after the decision. Fifteen minutes after the decision, recovery had occurred and there was clear evidence of dissonance reduction. Surprising results were obtained from those subjects measured 90 minutes after the decision. There was no evidence here of any dissonance reduction.

■ We may come to the conclusion that at least under some conditions there is a measurable period of post-decision regret. Indirect evidence of this, in the form of post-decision reversal of choice, was obtained in the Festinger and Walster experiment, and very direct evidence was obtained in the Walster experiment. The two sets of data, taken together, certainly make the conclusion very plausible.

The ideas behind both of the experiments that were reported in this chapter may be summarized very briefly. It seems likely that

immediately after a decision the person focuses his attention on the dissonance that exists in an attempt to reduce it. The person examines the dissonant relations, tries to think them through, and tries to convince himself of things that will increase consonance. After all, how else can we expect dissonance to be reduced other than by focusing on, and trying to do something about, the dissonant relations?

It seems likely, furthermore, that one effect of focusing on the dissonance that exists would be to make that dissonance loom larger and seem more important. It is for this reason that we are led to expect a period in which post-decision regret is obtained. How severe and how long in duration the regret period is would be determined by how quickly dissonance can be reduced. If dissonance were easy to reduce and were reduced readily and in large amounts, the regret period might be insignificant and very fleeting. If dissonance were difficult to reduce, the regret period might be strong and of long duration.

At any rate, if and when enough dissonance was reduced to produce recovery from the regret period, we certainly expected to observe stable dissonance reduction. To have observed, as we did in the Walster experiment, a period of regret followed by post-decision dissonance reduction, followed by a diminution in the amount of measurable dissonance reduction, is unexpected and requires more consideration.

The major explanation suggested by Walster is simply that if dissonance reduction is almost impossible beyond a certain amount, and if the subject keeps focusing on the dissonance and keeps trying, unsuccessfully, to reduce it, this will produce an increase in importance of the dissonance that remains. The increased importance of the dissonant relations, in the absence of further dissonance reduction, may produce the effects obtained in the go-minute-delay condition. At first glance this explanation seems very forced and complicated, perhaps so complicated as to make it unpalatable. It may, however, be correct. It is quite possible that precisely those conditions which produce a measurable regret phenomenon also produce instability of the dissonance reduction in a situation where external aids to dissonance reduction are unavailable. Only future research will tell. It is clearly important to have data concerning the long-range effects of dissonance-reducing processes.