

Low-Ball Procedure for Producing Compliance: Commitment then Cost

Robert B. Cialdini
Arizona State University

Rodney Bassett
Roberts Wesleyan College

John T. Cacioppo
University of Notre Dame

John A. Miller
Ohio State University

The low-ball technique, a tactic often used by automobile sales dealers to produce compliance from customers, was examined in a set of three experiments. In all three studies, a requester who induced subjects to make an initial decision to perform a target behavior and who *then* made performance of the behavior more costly obtained greater final compliance than a requester who informed subjects of the full costs of the target behavior from the outset. The low-ball phenomenon—that an active preliminary decision to take an action tends to persevere even after the costs of performing the action have been increased—was found to be reliable (Experiment 1), different from the foot-in-the-door effect (Experiment 2), and effective only when the preliminary decision was made with a high degree of choice (Experiment 3). In competition with three other conceptual explanations, a formulation based on the concept of commitment was seen to best account for the results. An ecologically derived strategy for the identification and investigation of research questions was used and discussed.

Social psychologists have recently begun to examine the effects of a variety of factors on the likelihood that one person will comply with a request from another (cf. Cialdini & Schroeder, 1976). These investigations have generally used a similar epistemological sequence in attempting to uncover the psychological processes that influence compliance behavior. Typically, factors likely to affect the tendency to comply with a request have been identified on the basis of existing psychological theory. Once selected in this manner, the variables are submitted to experimental test to determine whether they do influence compliance probabilities according to prediction.¹

While this deductive approach has proven fruitful in generating a considerable amount of evidence concerning a number of compliance-related factors, it could be argued that such an orientation may be misleading as to the ability of these factors to produce meaningful levels of compliance in naturally occurring situations. That is, in order to perform an appropriate experimental test of a theoretical hypothesis, it is often necessary to control away all sources of variance but the ones under direct study. But it may well be that these extraneous sources of variance are precisely the ones that are prepotently strong in the normal pattern of the behavior being investigated. By eliminating the action of these extraneous variables for design reasons,

The authors are grateful to Richard Cialdini, Julian Edney, Charles A. Kiesler, Darwyn E. Linder, and Peter Reingen for their valuable comments on an earlier version of this manuscript.

Requests for reprints should be sent to Robert B. Cialdini, Department of Psychology, Arizona State University, Tempe, Arizona 85281.

¹Of course, this approach, wherein social phenomena are selected for study (and, consequently, for possible validation) by virtue of their relation to extant theory, is not unique to the compliance literature; much of social psychological research can be characterized similarly.

then, the researcher may discover certain statistically significant effects to exist in the contrived, antiseptic experimental context that are so small as to be overwhelmed in real behavior settings involving the natural presence of other, more powerful factors. Current social psychological research has recently been faulted for too frequently concerning itself with differences that, while statistically significant, are trivial or meaningless in the description of naturally occurring social behavior (Helmreich, 1975; Smith, 1972; Bickman, Note 1).

A different orientation to the investigation of compliance behavior could greatly reduce the magnitude of the above-described difficulty. The techniques and procedures commonly used in everyday compliance settings (e.g., sales, fund raising, collective bargaining) would be identified initially through observation. These procedures and techniques could then be classified according to the conceptual variables they seem to embody. After a factor potentially linked to compliance behavior has been selected in this fashion, it could be put to experimental test to determine whether it does mediate the effectiveness of the technique that brought it to light, as well as to determine its generality in affecting a variety of other compliance decisions. By beginning with techniques that are already used in real-world compliance contexts and *then* moving to the examination of their psychological underpinnings, the conceptual and theoretical factors related to compliance may be assessed with enhanced confidence in their ecological validity.²

The Low-Ball Technique

It is the purpose of the present article to use such an investigatory sequence in an examination of the relationship of certain social psychological concepts to compliance behavior like that typically obtained through a contemporary sales practice. There is a tactic, reputedly widespread (Carlson, 1973; *Consumer Reports*, 1974), that is used by some sales organizations to produce compliance from their customers. The technique, called "throwing a low-ball" or "low-balling," is especially prevalent among new-car dealers. The critical component of the procedure is

for the salesperson to induce the customer to make an *active decision* to buy one of the dealership's cars by offering an extremely good price, perhaps as much as \$300 below competitors' prices. Once the customer has made the decision for a specific car (and has even begun completing the appropriate forms), the salesperson removes the price advantage in one of a variety of ways. For example, the customer may be told that the originally cited price did not include an expensive option that the customer had assumed was part of the offer. More frequently, however, the initial price offer is rescinded when the salesperson "checks with the boss," who does not allow the deal because "we'd be losing money." Sometimes, the original agreement is voided by the used-car manager, who offers a trade-in price substantially below the inflated one suggested by the salesperson in the initial negotiation. In each instance, the result is the same: The reason that the customer made a favorable purchase decision is removed, and the performance of the target behavior (i.e., buying that specific automobile) is rendered more costly. The increased cost is such that the final price is equivalent to, or sometimes slightly above, that of the dealer's competitors. Yet, car dealership lore has it that more customers will remain with their decision to purchase the automobile, even at the adjusted figure, than would have bought it had the full price been revealed before a purchase decision had been obtained. The essence of the low-ball procedure, then, is for a requester to induce another to make a behavioral decision concerning a target action. It is assumed that the decision will persist even after circumstances have changed to make performance of the target action more costly.

The first step in an examination of the low-ball technique and its relationship to compliance involves a demonstration of the effectiveness of the tactic. Does it really work, or have automobile dealers, in the absence of evidence from controlled pro-

² The first step of looking to natural settings for examples of widely used tactics has also been suggested (McGuire, 1973) as a means for generating new hypotheses. McGuire labeled the procedure "analyzing the practitioner's rule of thumb."

cedures, deluded themselves as to the compliance-producing power of low-balling? In order to provide experimental evidence concerning the reliability of low-ball procedures in enhancing compliance, a small field study was conducted. The study implemented the low-ball strategy by obtaining a decision from subjects to execute a target behavior and then raising the cost of performing that behavior. The low-ball procedure was contrasted with a control procedure in which subjects were informed of the full cost of the target behavior before being requested to perform it.

Experiment 1

Method

Subjects and procedure. Subjects were 63 students of both sexes enrolled in introductory psychology classes at a large state university. The subjects were randomly selected from class rolls and phoned by an experimental confederate. The confederate, who was blind to the experimental hypothesis, solicited subject participation in a psychology experiment by using either low-ball or control procedures. In both conditions, the confederate introduced herself as follows:

My name is _____. I'm calling for the Psychology Department to schedule Psychology 100 students for an experiment on thinking processes. The experiment concerns the way people organize facts. We can give you 1 hour of credit for your participation in this experiment.

At this point, the experimental script diverged for the two conditions.

Control condition. Before they were asked if they would be willing to participate, subjects in the control condition were informed that the experiment would take place at 7:00 a.m. Specifically, the confederate said:

The room in which the experiment is being held is used during the day and evening by other people in the department; so we are running this experiment at 7:00 in the morning on Wednesdays and Fridays. Can I put you down for Wednesday or Friday morning at 7:00?

If a subject said "No," he or she was debriefed and thanked. If the subject said "Yes," an appointment was made and the subject's name taken.

Low-ball condition. Subjects in this condition were asked if they wished to participate after the experimental requirements were only partially described. If a subject agreed, he or she was then informed of the 7:00 a.m. starting time and was again asked if he or she was willing to participate. Specifically, the confederate said, "Would you be

willing to participate?" A subject who said "No," was debriefed and thanked.³ If a subject inquired about a time, the confederate replied,

Well, we have more than one time during the week, but right now I'm just interested in finding out if you wish to participate.

If the subject said "Yes," the confederate continued as follows:

The room in which the experiment is being held is used during the day and evening by other people in the department; so we are running this experiment at 7:00 in the morning on Wednesdays and Fridays. Can I put you down for Wednesday or Friday morning at 7:00?

Unless the experimental appointment was for the following day, all subjects agreeing to participate were called again the night before the appointment to remind them of the experiment. If a subject was not home, a message was left.

Two dependent measures were taken. The first, measuring verbal compliance, was the percentage of subjects who made an appointment to participate in the study at one of the two specified times; the other, measuring behavioral compliance, was the percentage of subjects who actually appeared for their 7:00 a.m. appointments. Those subjects who appeared did indeed participate in an experiment on thinking processes at that time. At the completion of the thinking-processes experiment, subjects were fully informed of the procedures of both studies.

Results

The data on verbal compliance with the confederate's request confirm the effectiveness of the low-ball strategy, in that 56% (19/34) of the low-ball condition subjects made an appointment to participate, whereas only 31% (9/29) of the control condition subjects did so, $\chi^2(1) = 4.14$, $p < .05$. The superiority of the low-ball procedure was demonstrated to an even greater extent on the more important, practical measure of behavioral compliance, in that 53% (18/34) of the low-ball condition subjects who were called actually appeared at the appointed time as compared to only 24% (7/29) of

³ To avoid the possibility that differential subject loss could account for our results, any subject who refused even this request was included in our data analysis and categorized as noncompliant. Such a procedure was carried out in the subsequent experiments as well.

the control condition subjects, $\chi^2(1) = 5.40$, $p < .024$. A high percentage of subjects in both conditions who complied verbally with the request complied behaviorally as well; this percentage was somewhat, but not significantly, higher in the low-ball condition, 95% (18/19) versus 79% (7/9). There were no significant differences due to sex of subject.

Discussion

The results of our analogue of the low-ball technique indicate that the sequence of obtaining an active decision from a target person to perform an action and only then providing information about the full costs of the action is an effective way to produce compliance with a request to perform the fully described action. Armed with such evidence from controlled, experimental procedures, our confidence that the low-ball strategy does really work and is not merely a sales myth can be increased. Given that increased confidence, the next step in the examination of the technique would seem to be the demonstration of its generality to a naturalistic context unlike that of Experiment 1. That is, although Experiment 1 was a field study and the experimenter was blind to the hypothesis, the study did use as subjects introductory psychology students who interacted with a requester whom they perceived as an experimenter; consequently, experimental demand influences (Orne, 1962) may conceivably have been implicated. Further, if the technique is cross-situationally robust, it should induce compliance in settings and with types of behavior quite unlike those to which it is customarily applied; for example, in contrast to the typical sales context, we should be able to establish the tactic's effectiveness in a charity context and on altruistic action. To these ends, it was decided to conduct a second study that was wholly unrelated, in the subject's mind, to psychological experimentation and that used a form of benevolence as the target behavior.

Another purpose of Experiment 2 was to provide evidence that the low-ball technique

was different from an established compliance tactic that could be seen as similar, if not identical, to low-balling. That is, it might be argued that the low-ball sequence in which a requester secures an active decision to perform a target behavior and then raises the cost of performing the behavior is just a version of the foot-in-the-door procedure (Freedman & Fraser, 1966). A requester uses the foot-in-the-door technique by inducing an individual to perform an initial favor and subsequently asking that individual to comply with a larger, second request. While both techniques seek to gain performance of a costly action by first obtaining accession to an apparently less costly request, there is at least one important difference. With the low-ball tactic, the behavior requested initially (e.g., buying a certain car, participating in a certain experiment) is in fact the target behavior; only the cost of carrying out that specific behavior changes. With the foot-in-the-door procedure, the behavior requested initially may be related to the larger favor desired by the requester, but it is not the target behavior itself. Whether the above-described difference between the two techniques is just a semantic one or is a genuine one that would manifest itself in the differential ability of the two tactics to produce compliance in given situations is, of course, an empirical question. It was our feeling that the procedural difference between the two techniques would empower the low-ball technique as the more effective compliance inducer. That is, an individual who has already decided to perform the target behavior may experience a greater sense of cognitive commitment to the performance of *that* behavior than would an individual who has already decided to perform a different, though related, action. Consequently, the low-ball technique might be expected to produce more performance of the target behavior than the foot-in-the-door technique. To test this possibility, a field study was conducted in which three sets of procedures—low-ball, foot-in-the-door, and control—were used to induce subjects to perform a charitable action.

Experiment 2

Method

Subjects and procedure. Subjects were 30 male graduate students who resided in dormitory rooms at a large state university and who were contacted in their rooms by a college-age male experimenter posing as a United Way worker.⁴ When subjects answered the experimenter's knock at their doors, the experimenter introduced himself uniformly as follows:

Hi, my name is _____, and I'm working with the United Way. I'm going around asking people to display United Way posters for us.

At this point, the experimental script differed in accord with the randomly alternated set of procedures designed to obtain performance of the target behavior. The target behavior sought from each subject was the display of a pair of United Way posters.

Control condition. Control subjects learned from the outset that agreeing to display the posters would require that they procure a "poster packet" at the downstairs dorm desk within an hour of experimental contact. After the standard introduction, the experimenter shuffled through his briefcase and announced:

I don't have any posters with me now; I must have given my last one to the last person I talked with. But there are packets at the dorm desk downstairs which contain a window poster and a door poster. They'll only be there for the next hour; then they'll be taken to another area. Would you be willing to pick up a packet within the hour and put a poster on your window and one on the outside of your door and leave them up for a week?

Low-ball condition. Subjects experiencing the low-ball procedures were first asked to display the posters. Those who agreed were then informed that they would have to pick up the posters downstairs within an hour. Thus, after the standard introduction, the experimenter continued, "Would you put up a pair of United Way posters?" If the subject said, "No," he was thanked and the experimenter left; if the subject said, "Yes," the experimenter shuffled through his briefcase and announced:

I don't have any posters with me now; I must have given my last one to the last person I talked with. But, if you still want to do this, there are packets at the dorm desk downstairs which contain a window poster and a door poster.

The remainder of the script was identical to that of the control condition.

Foot-in-the-door condition. Subjects in the foot-in-the-door condition initially complied with the request to accept for display a window poster that the experimenter carried with him; they were then

asked to perform the more costly target behavior requiring a trip to the downstairs desk within the hour. Thus, after giving the standard introduction, the experimenter continued, "Would you put up a United Way window poster?" All subjects agreed and were provided with a poster. "Thanks. We're also asking people to help by putting up a door poster." The experimenter shuffled through his briefcase and announced:

I don't have any door posters with me now; I must have given my last one to the last person I talked with. But there are packets at the dorm desk downstairs which contain a door poster.

The remainder of the script was identical to the control condition.

Results

A high and approximately equal percentage of verbal compliance occurred across all conditions. With 10 subjects per group, 80% of the subjects in the low-ball condition and 70% of the subjects in the other two conditions agreed to display the posters after being informed of the full cost of so doing. Our major interest, however, concerned performance of the target behavior, which was measured the following day as the percentage of subjects' rooms displaying the posters. It was on this measure of behavioral compliance that the superiority of the low-ball technique asserted itself clearly. We had hypothesized that the greatest performance of the target behavior would occur in the low-ball condition. That expectation was supported by a contrast that pitted behavioral compliance in the low-ball condition (6/10) against that in the combination of the foot-in-the-door (1/10) and control (2/10) conditions; by Fisher exact test, $p < .02$. Further, the superiority of the low-ball treatment maintained itself when only those subjects who verbally complied were considered; that is, 75% (6/8) of verbally compliant subjects in the low-ball condition complied behaviorally, whereas substantially fewer, 28.6% (2/7) and 14.3% (1/7), did so in the control and foot-in-the-

⁴ Graduate students were chosen because they were the only dormitory residents who were allowed single rooms. The potentially contaminating effects of the presence of a roommate on subjects' charitable behavior were thereby eliminated.

door conditions, respectively; by Fisher exact test, $p < .025$. It was also our expectation that the foot-in-the-door condition subjects would show more compliance than the control condition subjects. The difference between those conditions, as tested by a second orthogonal contrast, was clearly nonsignificant and slightly opposite to the predicted direction.

Discussion

The results of Experiment 2 provide evidence of the effectiveness of the low-ball procedure in a novel and naturalistic context. Charitable action, a form of behavior quite unlike the target behaviors to which the tactic is standardly applied, was significantly influenced by the technique in a setting that did not contain (for the subject) the experimental trappings present in Experiment 1. It appears, then, that the low-ball technique has some robustness across target behaviors as well as power in naturalistic situations.

In addition to investigating the generality of the low-ball tactic, a second purpose of Experiment 2 was to determine whether and how it differed from the foot-in-the-door technique. We hypothesized that more performance of the target behavior would occur from the low-ball strategy because it initially induced subjects to decide to enact the target behavior itself rather than a different, though related, behavior. Such a decision was thought to produce a cognitive commitment to the performance of the target behavior that would manifest itself in especially high levels of compliance. Of the two types of compliance measured in the study, it was only in behavioral compliance that the low-ball procedure proved to be clearly superior. The failure of either experimental compliance technique to elicit substantially greater verbal compliance than the control procedure is probably best interpreted as the result of a ceiling effect caused by the very high level of baseline verbal compliance (70%) that occurred in the control condition.

It is instructive, nonetheless, to examine the relationship between verbal and behavioral compliance among the three conditions of the design. The behavioral superiority of the low-

ball technique appears to be primarily due to the significantly greater tendency of verbally compliant subjects in that condition to execute the target behavior they had agreed to perform. One plausible explanation for the form of these data supports our prior hypothesizing and underscores the need for compliance researchers to obtain behavioral measures of compliance. It is our feeling that a high percentage of the verbally compliant subjects in the foot-in-the-door and control conditions never intended to perform the target behavior; since the full cost of the target action was known to these subjects before they were asked to agree to do it, many may have privately decided not to perform the costly action but rather to provide only the impression that they would, in order to avoid immediate social disapproval. The comparable subjects of the low-ball procedures, on the other hand, were induced to decide to execute the target behavior when it seemed to involve a minimal cost; the resultant cognitive commitment to the performance of the target action should have existed privately from the outset for them and may have mediated the behavioral superiority of the technique. Whether or not the above account is the correct one, the form of the results does indicate that the low-ball procedure is not identical in effect to the foot-in-the-door procedure, in that the two techniques produced distinct data patterns.

Possible Mediators

To this point we have, for the most part, avoided a discussion of possible conceptual mediators of the low-ball effect, although we have hinted at the causal relevance of cognitive commitment. Now that we have determined via Experiments 1 and 2 that the low-ball phenomenon is both real and robust, it seems appropriate to turn our attention to theoretical implications. There are four formulations that could explain the low-ball effect that an active decision to behave in a certain way tends to endure even after the behavior has become more costly to execute.

Behavior engulfs the field. The first formulation, suggested initially by Heider (1958), is that a behavior (e.g., an active decision)

often exerts a disproportionately strong influence in the cognitive arena and, consequently, on the direction of subsequent behaviors: "It seems that behavior in particular has such salient properties it tends to engulf the total field rather than be confined to its proper position as a local stimulus whose interpretation requires the additional data of a surrounding field" (p. 54). Perhaps the most noteworthy illustration of how behavior may "engulf the total field" and overwhelm the influence of other relevant factors can be seen in the data of Jones and Harris (1967). Subjects who read an essay favorable to Fidel Castro attributed a pro-Castro attitude to the author of the essay, even when it was clear that the author had no choice in being assigned to write in favor of Castro. Jones and Harris contended that in deciding on the correct attitude to ascribe in the situation, these subjects were unduly influenced by the perception that a pertinent behavior had been performed. This tendency for behavior to overpower the effect of other situational variables may account for the success of the low-ball technique. Once an individual has behaved by making an active decision, the individual's perception that the decisional behavior had occurred could swamp the influence of other relevant considerations such as subsequent changes in the cost of implementing the decision, thereby increasing the probability that the decision would be carried out.

Self-perception theory. A related formulation, having more of the status of theory, also emphasizes the importance of behavior in the determination of subsequent events. Self-perception theory (Bem, 1967) suggests that a person who perceives him- or herself as freely behaving in a certain manner toward some object will self-attribute an attitude toward the object on the basis of that behavior. One who selects chocolate ice cream in a shop that offers 31 flavors, then, should logically infer strong positivity toward chocolate ice cream on the basis of that selection. This attributed positivity toward chocolate ice cream could be expected to cause the individual to retain the decision, even if it were later learned that chocolate ice cream was slightly more expensive than originally

thought. An analogous process could explain the effectiveness of the low-ball procedures in Experiments 1 and 2. The perception of the behavioral decision to take specified action may have caused our subjects to self-attribute personal favorability toward the action that would enhance the likelihood that the action would occur, even after it had become more costly. A major distinction between Heider's (1958) notion of behavior engulfing the field and self-perception theory is that in the latter case the perception of behavior is seen as an important, but not overwhelming, influence on the cognitive field; other factors such as volition play a crucial role in the inference process. In contrast to the notion that behavior engulfs the field, self-perception theory contends that an action that was performed without freedom of choice would have little impact on self-attributions.

Dissonance theory. It might be argued that dissonance theory (Festinger, 1957) could also explain the low-ball effect. That is, postdecisional dissonance resulting from the initial decision to perform an action could be expected to dispose the actor to become more favorable toward the chosen action (e.g., Davidson & Kiesler, 1964); that enhanced favorability would then work to increase the chance that the action would be performed, even if it were rendered more costly by subsequent events. As with self-perception theory, the variable of volition is a central one in dissonance theory; little or no dissonance would be generated by a decision made without high choice (Brehm & Cohen, 1962). In fact, the dissonance and self-perception formulations are sufficiently similar that, as we will see, each makes identical predictions concerning the occurrence of low-ball effects.

Commitment. A final explanation for the low-ball phenomenon lies in the commitment formulation presented by Kiesler (1971). Kiesler suggests that a major function of commitment is to impart resistance to change. To the extent that one is committed to a decision, for instance, the decision will be less changeable; the decision itself and the cognitions representing it will be "frozen," to use Lewin's (1947) terminology. Further, Kiesler contends that one way to bring about

commitment is through volitional action. According to this analysis, then, one who makes a decision behaviorally and with choice will be cognitively committed to the decision and will be unlikely to change it, perhaps even after the circumstances that brought about the decision have themselves changed to make the decision less appropriate. The results of Deutsch and Gerard's (1955) classic conformity study support such a possibility. They showed that subjects who had committed themselves to a decision through the mere act of writing it down anonymously were less inclined to modify the decision when new evidence (i.e., the responses of other persons) suggested that the decision might not have been a correct one. The applicability of the commitment formulation to the low-ball tactic seems straightforward: An active initial decision to behave positively toward some object will tend to make the decision persist, not necessarily because the decision will produce a more favorable attitude toward the object in question, as self-perception and dissonance theories would assert, but because the active decision will create commitment, that is, a resistance to change that will tend to be impervious to the influence of subsequent data concerning the wisdom of the decision.

Factors Allowing for Mediation Tests

Volition. In order to test the four potential mediators of the low-ball effect, a third experiment was considered necessary. Experiments 1 and 2 were not designed for the purpose of differentiating among those possibilities and, hence, lacked several components necessary for a proper test. One such component would be a manipulation of volition of decision. That is, one of the possibilities—Heider's (1958) notion of behavior engulfing the field—would predict that the low-ball phenomenon should occur when an individual makes an initial, active decision, whether or not the decision was made with a high degree of choice. The perception that a behavior had been performed should, by this account, work to trivialize the effect of other relevant variables like volition. Recall that exactly such a process seemed to occur

in the Jones and Harris (1967) study, and similar results have been obtained where subjects have rated themselves (e.g., Cialdini, 1971). Each of the other three formulations, however, does stress the importance of the factor of volition and would expect the low-ball procedure to be effective only when freedom of choice existed for the preliminary behavioral decision.

Attitude shifts. A second experimental component that would allow a discrimination among the alternative formulations would be the inclusion of an attitude measure. Two of the formulations—self-perception and dissonance—argue that an individual who has made a favorable behavioral decision toward an object will tend to persevere in the decision, even in the face of newly negative circumstances, because the individual has come to view the object more positively than before as a result of the decision itself. Thus, these two theories would expect a low-ball effect to be accompanied by a mediating attitude-change effect. Although the idea that behavior engulfs the field is nonpredictive concerning this point, the commitment formulation is clear in its expectation that a shift in attitude would not accompany a simple increase in commitment. Kiesler (1971) has argued that commitment itself does not produce attitude change and has presented data to support his position (e.g., Kiesler & Sakumura, 1966).

An alternate operationalization. A final experimental component that would allow us to assess the predictive power of the alternative explanations for the effect would involve a somewhat different method of putting the low-ball sequence into operation than was used in Experiments 1 and 2. In those studies, a subject was initially induced to agree to perform an action, and the cost of the action was then increased when the requester added some rather noxious further conditions. Although legitimate, such a way of enacting the low-balling tactic does not differentiate among the possible mediators of the phenomenon. Another, equally legitimate operationalization, in which the requester initially obtains an agreement by describing specific positive properties of the target action that make it more attractive than alternative ac-

tions and then increases the cost of the target action by *removing* those positive properties, would provide such a differentiation, however. This latter method of operation can be seen to be comparable to that of the car-sales context, where the customer is induced to decide to purchase a particular car on the basis of a clear price advantage, which is then removed after the active decision has been made. Such a procedural sequence would allow a test among the various explanatory formulations because the clear advantage offered initially by the requester provides a wholly external justification for the decision to perform the target action. Self-perception and dissonance theories would not expect the low-ball effect to occur under such conditions. That is, since the target behavior was initially presented in a way that made it easily the most attractive alternative, deciding to perform it would not result in post-decisional dissonance (Brehm, 1956) or in a revised self-perception of attitude (Bem, 1967); consequently, without the mediating effect of initial attitude change, the decision to perform the target behavior should not be expected to persist after circumstances have changed to make the behavior a more costly one. Neither of the other two possible mediators of the phenomenon would make a similar prediction: A behavioral decision would be expected to engulf the field, and a behavioral decision would be expected to produce commitment whether or not the decision was perfectly justified.

In order to provide evidence concerning the conceptual mediator of the low-ball phenomenon, a laboratory study was conducted that included the above-described form of low-balling, an attitude-change measurement, and a manipulation of choice. The study contained three conditions, each of which required subjects to make an initial decision to take one of two alternative personality tests. In the two experimental conditions, subjects were informed before the initial selection that one of the tests would produce twice as much experimental credit as the other. In one of these experimental conditions (low-ball/high volition), the subjects were given free choice in making the initial selection between the tests. In the other experi-

mental condition (low-ball/low volition), the subjects were initially required to select the test that provided the greater amount of credit. After the initial selection, subjects in both experimental conditions recorded their attitudes toward the alternatives; they then learned that the earlier credit information had been in error and that they would receive the smaller amount of credit for taking either personality test. At that point, subjects were allowed to decide again, freely in all cases, which test they wished to have administered to them. A control condition, in which subjects made an initial free selection between the alternatives at the lower amount of credit production, provided the baseline information necessary to assess the effectiveness of the two low-ball conditions.

Each of the four possible explanations of the low-ball effect would make different predictions in the experimental situation. From the simple notion that behavior engulfs the field, we should expect that subjects who initially selected the personality test providing the larger amount of credit would remain with that selection after the credit superiority of the test had been eliminated; further, this would be the case whether or not the initial selection was made with a high degree of volition. The self-perception and dissonance formulations would predict that since the initial decision for the test offering more credit was wholly justified by the credit difference, the experimental subjects should not experience more favorable attitudes toward the chosen alternative; consequently, these subjects should not be expected to maintain their initial decisions to any enhanced degree after the credit level of the selected test was reduced to that of the nonselected test. The commitment formulation, on the other hand, would expect that subjects who initially selected the test offering the higher amount of credit would not experience positive attitude shifts toward the selected test but would, nevertheless, retain that decision after the test's credit advantage had been removed; additionally, the commitment interpretation would predict that this perseverance of the first decision would result only when subjects had been allowed free choice in making that decision.

Experiment 3

Method

Subjects. The subjects were 144 students of both sexes enrolled in an introductory psychology course that required four hours of experimental participation during the term. Subjects signed up for an experiment concerning "social personality tests" that advertised a single hour of credit for their participation.

Procedure. Subjects were met at the experimental room by one of three college-age experimenters who described the experiment as concerning what students think of different kinds of personality tests. The experimenter then gave the subject a booklet and left the subject alone, with instructions to complete the booklet. The booklet contained short descriptions of two personality tests, the National Involvement Scale and the California F Scale. The descriptions informed subjects what each test was said to measure and what a score on the test would indicate about one's personality. The booklet then asked subjects to rate, along a series of three evaluative dimensions (informative, valuable, enjoyable), how attractive they would find taking each test and finding out their score. At this point, the booklets differed according to the condition to which the subjects had been randomly assigned.

Low-ball conditions. After rating the personality tests, low-ball subjects read that the National Involvement Scale (the target test) would provide them with twice the authorized amount of credit because the experimenter needed more respondents on that test. Subjects were then allowed to select between the two tests (high volition) or were assigned to take the target test (low volition):

Since more prior research has been conducted here on the California F Scale than on the National Involvement Scale, we would like more people in this experiment to take the National Involvement Scale. Thus, we are willing to give 2 hours of experimental credit to subjects who take the National Involvement Scale.

In the high volition cell, the instructions continued:

From the following personality tests, please circle the one you have decided to take. *Please understand that the choice is completely your own.*

In the low volition cell, the instructions said:

Therefore, from the following personality tests, you have been assigned to take the test starred (*) below.

The National Involvement Scale was always the starred alternative. After a selection had been made or assigned, the experimenter returned and asked subjects to rate the tests again, but this time on a different set of evaluative dimensions (meaningful, interesting, pleasant) than before. Pilot testing had

shown the two sets of dimensions to elicit from subjects comparable favorability scores concerning the personality scales ($F < 1$). After the tests had been rerated, the experimenter looked at the subject's booklet, pretended to notice an error, and removed the credit advantage of the target test:

Oh! Please disregard this statement in the booklet about getting 2 credits for taking the National Involvement Scale. We *were* giving 2 credits last term when we needed a desired number of students to take that test. However, during this term we are offering only 1 credit for whichever test is chosen. It makes no difference to us which test you choose, and they both take about the same time to complete.

The experimenter then allowed subjects the chance to change their test selection:

Now just to be sure, since the tests take the same time and are worth the same credit, do you want to stay with the test you have now, or do you want to change to the other test?

At this point, subjects were allowed to decide between the tests again.

Control condition. Control subjects were never informed that the personality tests differed in terms of experimental credit or in the experimenter's desire to administer them; consequently, after their initial selection of a test had occurred and they had rerated the tests, the experimenter merely allowed them the opportunity to change their decision as he had in the low-ball conditions. In all other ways, the control condition was identical to the low-ball/high volition condition.

All subjects then received a postexperimental questionnaire inquiring into (a) their perception that the final selection of a test was their own choice, (b) their estimates of how they and most others would score on the personality tests, and (c) their hypotheses and suspicions concerning the experiment. Finally, subjects received the personality test of their choice along with instructions on how to score it and what a score was purported to mean. After subjects had taken and privately scored their tests, they were debriefed and thanked.

Results

Postexperimental questionnaire. As a post-test check on the effects of suspicion of the manipulation or motives involved in the experiment, all subjects were asked to describe in written form what they thought the hypothesis of the experiment was and what suspicions they may have had. No subject was able to state the hypothesis. None of the few subjects expressing suspicions concerning aspects of the experiment said that their experimental

behaviors were affected by these doubts. Subjects indicated their feeling that their final selection of a test was freely their own on a 7-point scale ranging from "Not at all" (1) to "Completely" (7). Subjects in all conditions reported equally high perceptions that the choice was their own ($M_s = 5.9, 6.1, 6.0$; $F < 1$); and the modal response in all conditions was "Completely." Thus, when the crucial final test selection was made, it appears that subjects in all conditions felt a high and equal degree of freedom in that decision.

Attitude ratings. Attractiveness ratings for the two personality tests were taken before and after the initial selection was made. Neither an analysis of the pre- versus post-test change scores nor analysis of the post-test scores alone showed any significant attitude-change effects. There were no significant changes in attractiveness of the tests as a result of the initial selection in any condition; nor were there differences in attractiveness of the tests among the three conditions either before or after the initial selection (all $F_s < 2$). Despite the absence of attitude effects, there is evidence that the attraction scales used were sensitive and valid. A point-biserial correlation showed that attraction to the tests was significantly related to the final behavioral selection of a test, $r = .58$, $p < .001$. This evidence is important, as it could otherwise be argued that a problem with the sensitivity of our attraction scales accounts for the lack of observed attitude change.

Behavioral data. Table 1 shows the percentages of subjects choosing to take the target test, National Involvement Scale, both at the initial decision point (when low-ball subjects thought that test produced twice the standard allotment of experimental credit) as well as at the final decision point (when the credit advantage of the target test had already been removed). As the table indicates, the low-ball/high volition procedures were more successful in inducing subjects to make an initial selection of the target test than control procedures (81% vs. 31%), $\chi^2(1) = 24.4$, $p < .001$. Of course, 100% of the low-ball/low volition subjects initially selected the target test, since it was assigned to them. The

Table 1
Percentages of Initial and Final Selections of the Target Test

	Initial selection	Final selection
Low-ball/ high volition	81 (39/48)	61 (29/48)
Low-ball/ low volition	Assigned (48/48)	42 (20/48)
Control	31 (15/48)	31 (15/48)

critical test of the low-ball technique's superiority, however, must be seen in the data of the final decision, when all subjects selected freely between the tests that by then had been rendered comparable in credit production. Once again, the low-ball/high volition condition resulted in greater selection of the target test than the control condition (61% vs. 31%), $\chi^2(1) = 8.22$, $p < .005$. The low-ball/low volition condition (42%), however, did not prove to be superior to the control condition, $\chi^2(1) = 1.12$, *ns*.⁵ Further, the low-ball/high volition condition produced substantially more complicity than its low volition counterpart, $\chi^2(1) = 3.38$, $p = .065$.⁶ No

⁵ Besides reflecting the importance of the perception of choice in the effectiveness of low-balling, the pattern of these means also eliminates an alternative explanation of the basic effect that derives from the demonstrated tendency of individuals to prefer to perform behaviors they had initially expected to perform (Aronson, Carlsmith, & Darley, 1963). Had this expectancy interpretation accounted for the effect, both of the low-ball conditions would have been significantly different from the control, since subjects in both low-ball conditions were given an equivalent initial expectation that they would take the target test.

⁶ Although it might be argued that this difference between the low-ball conditions was due to a reactance tendency among the low volition subjects that suppressed selection of the target test, a close scrutiny of the data does not support the possibility. The low-ball/low volition condition was different from the control condition on neither attraction toward the tests nor final behavioral selection of the tests, as a reactance-based interpretation would predict. Further, the ratings of the perception of free choice in making the final behavioral selection indicated that low-ball/low volition subjects did not feel restricted choice freedom, suggesting that reactance pressures were not present when the crucial selection occurred.

significant effects due to sex of the subject were found.

General Discussion

Although each of the possible explanations we have considered for the low-ball effect could account for aspects of the data of Experiment 3, the findings are wholly consistent only with the commitment interpretation. That is, only Kiesler's (1971) commitment formulation would have predicted entirely the obtained pattern of results that (a) the low-ball technique would produce greater final selection of the target activity than a control treatment, (b) the technique would be effective despite a lack of attitude-change effects associated with the initial decision, and (c) the technique would only be more effective than a control treatment when the initial decision was made with free choice. Of course, it should be recalled that Experiment 3 was designed specifically to eliminate the explanatory relevance of dissonance and self-perception theories. In other settings, such as those of Experiments 1 and 2 as well as a variety of naturally occurring situations, dissonance or self-perception factors may well play a role in enhancing the efficacy of the low-ball tactic. Thus, while it appears that commitment to perform an action is the determining condition for the occurrence of a low-ball effect, such a commitment might well produce augmented effects if it also engaged the action of dissonance or self-perception principles. One might suspect, then, that the low-ball method used in Experiments 1 and 2 (i.e., increasing the cost of a selected behavior), which allowed for the influence of those principles, would be more successful than the version used in Experiment 3 (i.e., reducing the benefits of a selected behavior), which did not. A test of this hypothesis must await subsequent research wherein the two forms of low-balling are assessed in comparable contexts.

Together, the results of the three studies indicate that the low-ball phenomenon is reliable, robust, and mediated by a commitment to an initial, uncoerced decision to perform a behavior. It is interesting to speculate as to

why the factor of volition plays a crucial role in the technique's effectiveness if, as Experiment 3 showed, it does not necessarily result in attitude shifts. Kiesler (1971) has suggested that the perception of choice carries with it the perception of responsibility. Thus, one who freely chooses to perform an action should feel responsible for the action. In fact, Kiesler goes on to suggest that the entire basis of commitment may lie within the concept of self-responsibility: One is committed to something when one feels responsible for it. The reason we are less likely to change once committed is that reversing what we feel responsible for results in a variety of negative self-perceptions (e.g., hastiness, a lack of intelligence or judgment or appropriate caution, etc.); consequently, we will resist such change. Another possibility is that situations requiring free choice between alternatives involve a certain amount of strain; that is, abnormally high degrees of information vigilance and awareness are necessary so that the proper decision can be made. Once a resolution has been attained, especially in the instance of a large-scale decision like an automobile purchase, we may find ourselves loath to destroy the resultant sense of completion and begin again the stressful task of processing relevant information. A test of the validity of these speculations was, of course, beyond the intended scope of the present research; nonetheless, they do offer plausible underlying conceptual frameworks within which to place our results.

Conclusion

At the outset, we described a sequence for the investigation of compliance-related factors that was designed to increase confidence in the ecological validity of these factors. The sequence suggests that a researcher should begin with a period of observation, perhaps even participant observation, of the procedures, techniques, and tactics that are regularly used in natural compliance settings. On the assumption that the psychological factors embodied in such common strategies are already demonstrated to work well in real-world compliance contexts, doubts about the

power of one's conceptual variables to account for more than trivial amounts of variance in normal forms of behavior may be reduced. Variables for study, so selected, should then undergo experimental investigation to determine their reliability, generality, and theoretical relevance. The present research used such an approach to examine the low-ball technique, a tactic commonly used to produce compliance in sales settings. The technique was found to be a strong and reliable motivator of compliance in a variety of nonsales contexts. Further, the effectiveness of the tactic appeared to stem from its relation to the psychological concept of commitment, which was seen to be greatly affected, and perhaps mediated, by a manipulation of free choice.

A Full Cycle Approach

The ecologically derived strategy for the identification and examination of research questions is certainly not limited to the study of compliance behavior. Such an approach could be applied to any of a number of research domains in social psychology. As such, it should be noted that while there are obvious pragmatic advantages, the foremost concern of this orientation is conceptual rather than applied. Our principal intent in looking to the car-sales setting, for instance, was not to understand more fully how automobiles are sold, although that was a positive by-product. The primarily conceptual purpose was implicit in the decision to examine the low-ball technique in situations other than the car showroom so that questions of generality and conceptual mediation could be adequately addressed. The natural consequence of such a decision was that many of the rich set of features characteristic of new-car sales settings were lost; the compensation, of course, was the enhanced awareness of the cross-situational robustness of the low-ball technique and of its relation to existing social psychological theory.

A final point is that we would advocate the use of naturally occurring instances not only to identify variables suitable for experimental study but also to check on the validity

of the findings from that experimentation. For example, the present work appears to show that the action of the variable of commitment was limited to a situation involving the perception of free choice. If we look back to the car-sales context that originally brought the low-ball technique to light for us, we can see that a customer's perception of decisional volition is represented in that setting. Had it not been the case, we should have doubted the ecological validity of our laboratory findings. What we are proposing, then, is a "full cycle" approach, wherein initial natural observation gives direction to subsequent controlled experimentation, the outcomes of which can then be given external validation through further natural observation. Systematic recourse to the evidence of the real world both before and after the performance of experimental work may thereby reduce the extent to which current social psychological research can be criticized as artificial and epiphenomenal.

Reference Note

1. Bickman, L. *The gap between basic research findings and applications: Can it be closed?* Paper presented at the meeting of the Midwestern Psychological Association, Chicago, May 1976.

References

- Aronson, E., Carlsmith, J. M., & Darley, J. M. *The effects of expectancy on volunteering for an unpleasant experience.* *Journal of Abnormal and Social Psychology*, 1963, 66, 220-224.
- Bem, D. J. Self-perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review*, 1967, 74, 183-200.
- Brehm, J. Postdecision changes in the desirability of alternatives. *Journal of Abnormal and Social Psychology*, 1956, 52, 384-389.
- Brehm, J., & Cohen, A. *Explorations in cognitive dissonance.* New York: Wiley, 1962.
- Carlson, M. D. *How to get your car repaired without getting gypped.* New York: Harrow Books (Harper & Row), 1973.
- Cialdini, R. B. Attitudinal advocacy in the verbal conditioner. *Journal of Personality and Social Psychology*, 1971, 17, 350-358.
- Cialdini, R. B., & Schroeder, D. A. Increasing compliance by legitimizing paltry contributions: When even a penny helps. *Journal of Personality and Social Psychology*, 1976, 34, 599-604.
- Consumer Reports*, May 1974, 39, 368.
- Davidson, J., & Kiesler, S. Cognitive behavior before

- and after decisions. In L. Festinger (Ed.), *Conflict, decision, and dissonance*. Stanford, Calif.: Stanford University Press, 1964.
- Deutsch, M., & Gerard, H. B. A study of normative and informational social influences upon individual judgment. *Journal of Abnormal and Social Psychology*, 1955, 51, 629-636.
- Festinger, L. *A theory of cognitive dissonance*. Stanford, Calif.: Stanford University Press, 1957.
- Freedman, J. L., & Fraser, S. Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, 1966, 4, 195-202.
- Heider, F. *The psychology of interpersonal relations*. New York: Wiley, 1958.
- Helmreich, R. Applied social psychology: The unfulfilled promise. *Personality and Social Psychology Bulletin*, 1975, 1, 548-560.
- Jones, E. E., & Harris, V. E. The attribution of attitudes. *Journal of Experimental Social Psychology*, 1967, 3, 1-24.
- Kiesler, C. A. *The psychology of commitment*. New York: Academic Press, 1971.
- Kiesler, C. A., & Sakumura, J. A test of a model for commitment. *Journal of Personality and Social Psychology*, 1966, 3, 349-353.
- Lewin, K. Group decision and social change. In T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology*. New York: Holt, 1947.
- McGuire, J. W. The yin and yang of progress in social psychology: Seven Koan. *Journal of Personality and Social Psychology*, 1973, 26, 446-456.
- Orne, M. T. On the social psychology of the psychology experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, 1962, 17, 776-783.
- Smith, M. B. Is experimental social psychology advancing? *Journal of Experimental Social Psychology*, 1972, 8, 86-96.

Received September 7, 1977 ■

Hendrick Appointed Acting Editor of the *Journal of Personality and Social Psychology* in 1979

The Publications and Communications Board of the American Psychological Association announces the appointment of Clyde Hendrick as Acting Editor of the *Journal of Personality and Social Psychology* in 1979. Hendrick succeeds incumbent Editor Anthony Greenwald, who has resigned. As of July 1, 1978, manuscripts should be directed to the Acting Editor:

Clyde Hendrick
Department of Psychology
Box 8185
University of Miami
Coral Gables, FL 33124