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# Self-Inference and the Foot-in-the-Door Technique Quantity of Behavior and Attitudinal Mediation

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The purpose of this investigation was to test two aspects of the self-perception theory account of the foot-in-the-door (FITO) phenomenon. The first aspect tested was the claim that the greater the quantity of behavior associated with the initial request, the greater the likelihood of compliance with the later request. Quantity of behavior was operation-alized as (a) request size and (b) active versus passive execution, that is, whether the target person actually carried out the request in simply agreed to do so. The second aspect tested was the claim that changes in self-perception mediate the FITO effect. A field experiment was conducted to address these concerns. The results showed that a self-inference explanation is viable, however, a strict wif-perception account fails because active request size nor execution showed any correspondence to attitudinal moissures or to compliance with the second request. Implications for a self-inference explanation are discussed.

he simple, central proposition of self-perception theory is that persons infer their internal states from observation of their own actions (Bem, 1967, 1972). Although that claim is now two decades old, the theory continues to provide guidance for investigations concerned with self-inference processes (e.g., Fazio, 1987; Fazio, Sherman, & Herr, 1982). The foot-in-the-door technique (FITD) is one phenomenon that is necessarily enmeshed in questions about self-inference and the perception of behavior (Freedman & Fraser, 1966). This sequential-request technique specifies the use of a small first request followed by a larger, target request as a means of enhancing compliance. The procedure has been shown to increase

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Human Communication Research, Vol. 16 No. 3, Spring 1990 422-447 © 1990 International Communication Association reliably the proportion of persons who comply with the second request (Beaman, Cole, Preston, Klentz, & Steblay, 1983; Dillard, Hunter, & Burgoon, 1984; Fern, Monroe, & Avila, 1986).

Certainly the most frequently invoked explanation for this effect is self-perception theory (but see Cantrill & Seibold, 1986). Application of the theory to the phenomenon goes as follows: After observing their own compliance with the first request, individuals draw an inference about their own dispositions and/or attitudes. When asked to agree to a second, similar but larger request, they use that knowledge of self to behave consistently with the earlier act.

# Self-Perception and Behavioral Coding

The application of self-perception theory to FITD is seemingly straightforward. But the following quotation from Freedman and Fraser (1966) suggests that this simplicity may be deceptive:

What may occur is a change in the person's feelings about getting involved or about taking action. Once he has agreed to a request, his attitude may change. He may become, in his own eyes, the kind of person who does this sort of thing, who agrees to requests made by strangers, who takes action on things he believes in, who cooperates with good causes. (p. 201)

Thus, assuming that self-perception processes are operating, the issue becomes one of how actors are coding their own behavior. As the quotation makes apparent, a number of different options are available to them. Oddly enough, very little research bears on that question. To my knowledge, the only study to attempt such a test in the FITD literature is Scott (1977, but see also Rittle, 1981). Following a manipulation (FITD), she measured personal, stimulus, and situational attributions as well as attitudes toward activism and the issue under study (recycling). None of the measures attained traditional levels of significance, although several showed directional support. One explanation for the lack of findings in the Scott study is her reliance on attribution theory as a means of structuring the dependent measures. It may be that participants coded their behaviors in some other way than in terms of the categories suggested by the theory. In any event, it is clear that a single test of the hypothesis that attitudeattribution change mediates the FITD effect is inadequate to either confirm or disconfirm the theory.

#### Is More Better?

One hypothesis that flows easily from self-perception theory is that the greater the quantity of behavior to which the targets agree in the first request, the greater the likelihood of compliance with the second, larger request (DeJong, 1979; Dillard & Burgoon, 1982). But quantity may be thought of as possessing two rather separate components. One aspect of quantity is inherent in the request itself. Within the framework offered by self-perception theory, agreeing to a large request might plausibly have greater impact than acquiescing to a lesser appeal.

In an effort to put that prediction to test, Seligman, Bush, and Kirsch (1976) ran four different initial-request conditions that varied the amount of time and effort required of the participant. Specifically, persons were asked to answer 5, 20, 30, or 45 questions concerning their reactions to the energy crisis and inflation. The second request in all cases was to answer an additional 55 questions. Although no attitude data were collected, the researchers observed an effect of FITD in the two largest initial-request conditions but not in the two smallest. There was no difference in compliance between the two smallest request conditions or between the two largest.

Although Seligman et al. is (1976) findings are quite clear, the results of other studies are considerably less so. Beaman et al. is meta-analysis (1983) did not detect any reliable relationship between request size and compliance. In another quantitative review, Fern et al. (1986) did find a request-size effect, but only in studies that had 80% or better compliance with the first request. Hence, it would be fair to characterize the findings as mixed.

Apart from request size is the matter of carrying out the request as opposed to simply agreeing to do so (Fish & Kaplan, 1974). Active execution of the request should provide a greater quantity of information about oneself than mere agreement and should therefore enhance the likelihood of compliance with the later request. But again, the meta-analytic conclusions are in disagreement. Beaman et al. (1986) found a small effect for execution, r = .21, p < .05. Fern et al. (1986) observed a similar level of association in the full data set (r = .27, p < .05), but it shrank by half (r = .13 ns) in the set of studies that they fell constituted the purer test, that is, the studies with 80% or more compliance with the first request. In the one meta-analysis that controlled for moderator variables (prosocialness of request and pres-

ence/absence of an incentive for compliance with the first request), the impact of execution on compliance went to zero (Dillard et al., 1984)

# The Present Study: Design and Hypotheses

As the preceding review suggests, problems remain with the self-perception account of the FITD. One key feature of the theory, the attitudinal mediation hypothesis, has not been subjected to adequate test. Empirical examination of two derived hypotheses, both concerned with the effects of quantity of behavior, has yielded equivocal findings. Hence, the present study was intended to test the influence of request size and execution on attitudinal and behavioral change in the FITD paradigm. Consistent with self-perception theory, the present study uses the term attitude broadly, so as to include attributions and evaluative judgments.

The experimental design for that portion of the investigation which focused on behavioral change was  $2 \times 2$  with an offset control group. Four FITO-compliance conditions were run in which persons (a) agreed to perform either a small or a large first request but were not permitted to do so or (b) agreed to perform either a small or a large first request and actually carried out the behavior. In this way, request size was crossed with execution. All four groups received an identical second request, and the proportion of persons complying in each was compared with that of a control group that received only the second request. For these groups, certain patterns of compliance would be compatible with self-perception theory, whereas others would not. Evidence in favor of any or all of the following hypotheses could be considered supportive of the theory:

- H1: Compliance increases as a positive function of request size.
- H2: Compliance increases as a positive function of execution.
- H3: Compliance increases as a multiplicative function of request size and execution (however, only an ordinal interaction would be consistent with the theory).

Another purpose of this investigation was to attempt to illuminate that process which was thought to mediate the FITD effect, that is, to test the attitudinal mediation hypothesis. The first step was to ascertain the natural categories that persons use to code their own behavior.

Hence, a small preliminary investigation was carried out to explore what those categories might be. A questionnaire for use in the main study was devised to tap each of the attitudinal entities isolated by the preliminary investigation.

The design for that portion of the main study which focused on attitudes was 2 x3: two levels of request size and three levels of execution. As before, high execution consisted of promising to carry out the request but not actually doing so. The additional no-execution control groups were asked simply to imagine themselves agreeing to the first request. All groups received the attitude questionnaire based on the findings of the preliminary study. Because the theory is silent on the issue of how individuals choose among the various interpretations of their compliance with the first request, it is difficult to predict which attitude should show change. Minimally, support for self-perception theory would take the form of an increase, relative to the appropriate control group, in at least one attitude. Assuming for the moment that only one attitude shows change, that pattern of change should mimic the pattern of compliance in the behavioral portion of the study. Expectations for the attitude portion of the main study are summarized below. Although the design is a between-groups design, the hypotheses are phrased to reflect the self-perception process thought to underlie the FITD.

- H4: Attitude change increases as a positive function of request size.
- H5: Attitude change increases as a positive function of execution.
- H6. Attitude change increases as a multiplicative function of request size and execution (again, only an ordinal interaction would be consistent with the theory).
- H7: The pattern of attitude change will parallel the pattern of compliance

# PRELIMINARY STUDY

# Method

To generate a list of attributions for complying with a first request, an "interpersonal simulation" was conducted (see Bem, 1972, for a review). Participants in the preliminary study read a description of a single-request interaction, imagined themselves as the target of that request, and then listed the reasons they might have complied.

# Participants and Procedures

Forty-one persons enrolled in undergraduate communication classes responded to one of two versions of a questionnaire. All participants were advised of the voluntary nature of the study, and all agreed to participate without compensation. The questionnaire required 3 to 4 minutes to complete

#### Materials

The questionnaire asked each respondent to imagine himself or herself at home when a college student representing a local environmental organization appeared at the door and requested assistance with addressing either 10 or 35 envelopes. The text of the message was as follows:

Hello. My name is I'm with RECYCLE MADISON. We're a local, nonprofit group concerned with environmental awareness. One of the things we are trying to do is drum up awareness of recycling programs in Madison. In order to do this we are sending out letters introducing recycling programs. Through experience we've found that our letters are more effective when they are personally addressed. We're going around asking people if they would help us out by hand-addressing ten (35) envelopes. It takes five or ten minutes (20 to 25) to do that Would you be willing to help us out?

All respondents were instructed to imagine that they had agreed to the request. The experimental task was to list as many plausible reasons for that action as they could think of.

# Results and Discussion

A total of 146 reasons were generated. The author and two graduate students examined the data together and came to a group decision about what constituted a meaningful and exhaustive set of nonoverlapping categories. Two undergraduate coders were trained to use the eight-category scheme. Thirteen of the reasons were used in training as category exemplars. The coders sorted the remaining 133 reasons into eight categories. Reliability estimates for that task were. 73 (percentage agreement) and .65 (Cohen's kappa). Both values indicate adequate reliability (Landis & Koch, 1977).

Table 1 presents the content coding scheme. Several features of those results merit attention. First, as the table shows, there were two

# TABLE 1 Results of the Content Analysis of Reasons for Agreeing to Help RECYCLE MADISON

Proportion*	Description and Example of Reason
31%	Good cause. These reasons focus on the value of the cause itself.  Examples: "Recycling is a good idea."  "I'm concerned with the environment."
14%	Good principle. These reasons focus on the value of the activity. Usually that means "Helping is good," but sometimes other principles such as empathy, "If I were doing it I would want helps" or "being a nice person" are operative.
	Examples: "Good samantan—being helpful " "People deserve to have information about this."
12%	Source. All of these reasons emphasize some feature of the requester or the requester's behavior as the cause for agreeing.
	Examples: "He wouldn't let me say no." "I wanted him to like me."
10%	Emotional benefit. These reasons are mostly concerned with making the person feel better as a result of acting in a helpful manner; however, the category also includes all those inspances in which a person agrees to the request because of a feeling (e.g., good mood, boredom) rather than in order to achieve a feeling.
	Examples: "It feels good to help others." "I was bored." "I thought it would be fun."
8%	Appearances and Obligations. This category contains all those statements which deal with (a) how persons would appear if they refused or (b) feelings of obligation.
	Examples. "Didn't want it to look like I didn't care." "Would feel some pressure to do a good' thing."
3%	Self. This category emphasizes some regrettable but "unchangeable" feature of the person
	Examples: "I'.ii a sucker" "I just always agree to do whatever they want."
19%	Below the time energy threshold. These are not really reasons that a person agreed so much as they are reasons for not refusing.
	Examples: "I had nothing else to do." "It would only take a few minutes."
3%	Task effectiveness: These statements are paraphrases of the reason given in the script that persons are being asked to hand-address the envelope ("Through experience we've found that our letters are more effective when they are hand-addressed").
	Examples: "Personalized letters are a good idea." "I thought it would work."

stypes of reasons given in response to the experimental task. The first six categories are reasons for agreeing to the request, whereas the last two categories are reasons for not refusing. Second, some of the categories derive directly from attribution theory. For example, Good Cause and Self closely mirror Kelley's notions of stimulus and person (both of which were used in Scott, 1977). Third, and in contrast to the previous point, some of the results indicate greater breadth than that specified by any of the various versions of attribution theory, for example, the Emotional Benefit category. Consequently, it is reasonable to conclude that earlier efforts to detect attitude change as a function of the first FITO request may have been hampered by a reliance on measures that were not phenomenologically valid.

# Envelope Manipulation .

As noted previously, two versions of the questionnaire were administered. One version asked participants to imagine themselves as having agreed to spend 5 or 10 minutes addressing 10 envelopes, whereas the other version specified 20 to 25 minutes addressing 35 envelopes. To ascertain whether the form of the questionnaire influenced the configuration of attributions, a series of eight independent sample *t*-tests was conducted on the mean number of reasons in each of the two questionnaire-type groups. The *t* values ranged in absolute magnitude from .08 to 1.05 with a mean of .57. None approached marginal significance.

## MAIN STUDY

#### Method

# Participants and Procedures

Twelve experimenters (six females and six males) were trained in the two FITD requests as well as a separate script designed to accompany the attitude measure. Each experimenter was provided with a map containing approximately tencity blocks, with each block representing a separate cell in the design. He or she carried out the first-request conditions on the map during the first wave of data collection and then traded maps with an experimenter of the opposite sex. The

addresses of persons accepting the first request were surreptitiously recorded, and notes were made on the target person's race, age, gender, height, weight, and other identifying factors. During the second wave, which took place at least 1 but not more than 3 weeks after the first contact, each experimenter approached the households that had previously agreed to the first request. Using the identifying information available from the previous contact, experimenters sought to (a) contact the individual who had agreed to the initial request and (b) administer either the second FITD request or the attitude measure.

A total of 477 persons were contacted in the FITD-behavior and FITD-attitude conditions. This number was reduced during the second wave because (a) some persons were not home (experimenters were instructed to make only three attempts at contact); (b) others could not be gracefully contacted, due to interference from family members or roommates; and (c) some did not recall the initial contact. Due to these three factors, the sample was reduced to 337. Of that number, 171 were in the five behavior conditions (2 [size of request] x 2 [execution] plus offset control) and 166 were distributed across the six attitude conditions (2 [size of request] x 3 [execution]). Eleven persons were eliminated from the compliance analyses because they declined the first request, thereby yielding a final N of 160 for the compliance conditions. Of the 166 persons who accepted questionnaires, 84 returned them, giving an overall response rate of 51%. Since six of those surveys were largely incomplete, they were eliminated. This yielded a final N of 78 participants who were distributed across the six attitude cells. Occasional missing data reduced that number slightly for some analyses.

# FITD Manipulation

The first request was the same as that used in the preliminary study. It was varied in terms of request size (10 envelopes and 5 or 10 minutes versus 35 envelopes and 20 to 25 minutes) and execution, that is, whether the targets were actually given the envelopes to address or were told that the envelopes were not yet printed but would be delivered later. When making the request, each experimenter wore a black-and-white button with a silhouette of a local landmark encircled with the words RECYCLE MADISON. That logo also appeared on the

professionally printed envelopes that were distributed in the behavior conditions

The second request sought assistance in constructing a hiking trail outside the municipality in which the study was conducted. Expenmenters identified themselves as members of the Sierra Club, wore Sierra Club buttons, and carried literature describing the trail. The message is given below:

Hi. My name is I'm representing the Sierra Club-we're a national organization that tries to maintain the environment. Have you heard about the hiking trail that's under construction just west of Madison? Its called the Ice Age Trail. Its purpose is to show how the glaciers formed the Wisconsin landscape. When its finished you'll be able to follow the path of the glaciers for over a hundred miles and see how they shaped our state. Today we're looking for people to help with trail construction. Would you be willing to volunteer a couple hours of your time to work on the Ice Age Trail?

If the person who answered the door was the target individual, then his or her response was recorded. If the target agreed to the request, he or she was informed that the organization was compiling a list of volunteers at the present time and that the volunteers would be contacted later. If the person was not the target, the experimenter went through the script and then asked if there was anyone else at the residence of whom the request could be made. This last question was simply another attempt to make contact with the target

#### Attitude Measure

Twenty-four items were developed to tap the eight categories of reasons for agreeing to the first request. In most cases, the items were taken word for word from the data generated in the preliminary study. Respondents were instructed to focus on their experience the previous week with RECYCLE MADISON and decide on a 4-point scale if the reason had nothing to do with their decision to comply (0), a little bit (1), a moderate amount (2), or a great deal (3).

On the basis of Freedman and Fraser's (1966) theorizing, five additional items were included to tap individuals' general perceptions of their own degree of activism (two items) and attitude toward the environment (three items). For these items, participants were instructed to consider themselves "in general." The 5-point, Likerttype response scale was anchored at each point: strongly agree (1),

agree (2), not sure (3), disagree (4), and strongly disagree (5). These scales were reverse scored prior to conducting the analyses so that higher values indicated greater agreement with the item.

The questionnaire was one page long. On one side, the attitude items were printed; on the other, the author's name and institutional address appeared. The cover story that permitted administration of the attitude questionnaire revolved around a university-sponsored research project on door-to-door requests. The text of that message was as follows:

Hi. My name is \_\_\_\_\_\_. I'm with the Center for Communication Research at the university. We're studying groups that make door-to-door requests and the reasons that people agree to their requests or not. May Lask you a few questions about that? It only takes about 2 minutes.

(If the person answering the door was not the target person, then the experimenter asked, "Is there anyone here who has been contacted by a person making door-to-door requests recently?")

If the target person agreed to the survey, the experimenter continued with a set of questions concerning whether that person had been contacted by anyone representing a public interest organization, a children's organization, a political party, or an environmental group. The person's response was recorded for each question.

Next, the target was informed that the remainder of the questions dealt only with environmental groups. Ostensibly the research project had a sufficient number of questionnaires concerning the other types of organizations. Respondents were asked what type of request the representative of the environmental group made of them (the experimenter wrote this out on the questionnaire), whether they agreed to it, and whether they actually carried out the request. These questions served as manipulation checks. Persons who identified organizations other than RECYCLE MADISON were eliminated from the sample.

Finally, respondents were given a prestamped questionnaire and asked to complete and mail it in as soon as possible. The mail-in procedure was used because of the likelihood that the source judgments would be affected by a direct interview. The problem arose from the potential awkwardness of responding to some of the source attribution items in the context of another door-to-door request (e.g., such items as "I wanted the requester to like me").

For the control groups, the questionnaire contained an introductory paragraph that asked respondents to imagine a door-to-door solicitation. As a description of that event, the script for the first request was printed. Half the descriptions specified 10 envelopes; the remainder specified 35. The description concluded by asking participants to respond to the set of attitude questions as if they had agreed to the request.

#### Results

# Compliance Conditions

To assess the similarity of compliance rates among the four experimental groups, a 3-factor loglinear analysis was conducted. The factors were compliance with the second request, size of request, and quantily of behavior. The analysis showed no significant differences among the groups: for the 3-way interaction, Pearson  $X^2$  (1, N=116) = .11, ns; for the 2-way interactions,  $X^2$  (3, N=116) = .17, ns; and for the main effects,  $X^2$  (3, N=116) = 6.32, p<10. Examination of the partial chi-squares associated with each of the individual terms revealed an effect only for compliance ( $X^2$  [1, N=116] = 5.87, p<0.5), indicating that a smaller proportion of persons agreed to the request than refused it. Power for each of the individual tests was .94 for a medium-effect size (i.e., w=.30; Cohen, 1987) and .22 for a small-effect size (i.e., w=.10). These results offer no support for Hypotheses 1, 2, or 3, which were concerned with the effects of request size, execution, and their interaction respectively.

Given the absence of observable differences and the reasonable certainty that a medium-size effect would have been detected had it been present, the four experimental groups were collapsed and the design was reduced to a simple two-group comparison: the two-request FITD group versus the single-request, offset control. A contingency analysis of these two groups indicated the presence of a significant FITD effect,  $X^2(1, N = 160) = 6.11$ , p < .05. This effect is equivalent to r = .20 or .24 when corrected for the difference in sample size between the FITD and control groups (Hunter, Schmidt, & Jackson, 1982, p. 99).

The reader should bear in mind the importance of obtaining the FITD effect in this context. In the absence of an effect in the compliance conditions, the tests for attitudinal mediation would be rendered pointless.

TABLE 2 Comparison of Compliance Rates in the FITD-Compliance Groups

	·			
Compliance with Second Request				
Proportion	Frequency			
38 %	11/29			
38%	12/32			
37%	10/27			
43%	12/28			
39%	45/116			
18%	8/44			
	Proportion  38 % 38 % 38 %  37 % 43 % 39 %	Proportion         Frequency           38%         11/29           38%         12/32           37%         10/27           43%         12/28           39%         45/116		

 $X^{2}(1, N = 160) = 6.11, p < .05.$ 

#### Attitude Conditions

Preliminary analyses. Prior to conducting the theoretical analyses, a loglinear analysis was performed on response rate as a function of condition. The results indicated no significant differences among the groups: for the 3-way interaction,  $X^2(2, N = 160) = .22$ , ns; for the 2-way interactions,  $X^2$  (5, N = 160) = 3.77, ns; and for the main effects,  $X^2$ (4, N = 160) = 5.20, ns. Examination of the partial chi-squares associated with each of the individual terms revealed only an effect for compliance  $(X^2 \mid 1, N = 160) = 3.61, p < .06)$ , indicating that a smaller proportion of persons agreed to the request than refused it. Power for each of the individual tests was .97 assuming a medium-effect size (i.e., w = .30; Cohen, 1987) and .24 for a small-effect size (i.e., w = .10). On the basis of these results, it was concluded that if a self-selection bias was present in the sample, it operated similarly across conditions.

Next, an analysis of the measurement model was conducted. A confirmatory factor analysis was carried out whose purpose was to examine the relationships among the 24 attitude items and the factors they were intended to measure. Following Hunter (1980), each item was subjected to tests of content, internal consistency, and external consistency. Although it was necessary to drop 3 items, the resulting measurement model showed good conceptual correspondence to the eight-category scheme on which it was based. The attitude scales are given in Table 3. Alpha reliabilities were calculated for the multi-item scales (also Table 3).

# TABLES Scales Used to Measure Attitudes and Attributions

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- 1. Improving/maintaining the environment is important
- 2. It was a good cause

Good Principle (no alpha possible for a single item)

3. Regardless of the issue, helping is a good thing to do

Source (alpha = 74)

- 4. The person who asked me was attractive.
- 5. I wanted the requester to like me.

Emotional Benefit (no alpha possible for a single item)

I would have felt bad if I hadn't agreed to help.

Appearances and Obligations (alpha = 82) 7. I felt obligated.

- 8. I felt some pressure to do it
- 9. I didn't want to look like I didn't care.
- 10. I didn't want to appear apathetic

Self (alpha = A3)

- 11. I usually find it hard to say no.
- 12. I tend to comply with door-to-door requests
- 13 Lalways do what people ask.

Time-Energy Threshold (alpha = .56)

- 14. The cost in time or money was small
- 15. The request was very easy to do.

Task Effectiveness (no alpha possible for a single item) 16. I thought it would work

Activism (alpha = .61)

- 17. I tend to get involved in issues I believe in.
- 18. I am the kind of person who cooperates with good causes

General Enteronment (alpha = .68)

- 19 Environmental tissues are extremely important
- 20. I am concerned about the environment.
- 21. For me, environmental issues take a backseal to many other, more important issues (reverse coded).

NOTE: For items 1-16, respondents were instructed to focus on the extent to which the reasons provided affected their decision to agree to the first request (response scale 0 to 3). For items 17-21, respondents were instructed to consider how they see themselves in general (response scale 1 to 5).

Theoretical analyses. Initially, a multivariate analysis of variance was conducted using the ten attitude measures as dependent variables and request size (10 envelopes/35 envelopes) and execution (control/ promise/behavior) as independent variables. This yielded a main

TABLE 4
Comparison of Means in the
FITD-Attitude and Control-Attitude Groups

Attitude Measure	Combined Control Groups	Combined FITD Groups	t
Specific			
Good cause	2.52	2.52	.04
Good principle	.91	.76	61
Source	1.26	.35	4.95**
Emotional benefit	1.73	87	3.98**
Appearances and obligations	1.38	51	5.11**
Self	.46	.44	.14
Time/energy	1.86	1.90	.16
Task effectiveness	1.47	1.38	.41
General			
Activist	3,73	3.88	.97
Environment	3.78	4.16	2.63

NOTE: Range for Specific measures is 0 to 3. Range for General measures is 1 to 5. \*p < .01; \*\*p < .001.

effect for execution, F (20, 124) = 2.81, lambda = 43, p < .0001, but no effect for request size, F (10, 62) = .98, lambda = .86. ns. and no interaction effect, F (20, 124) = .81, lambda = .78, ns. Inspection of the univariate analyses revealed that the multivariate effect for execution was limited to four of the dependent variables: for source, F (2, 71) = 13.01, p < .001; for emotional benefits, F (2, 71) = 7.68, p < .01; for appearances and obligations, F (2, 71) = 12.57, p < .001; and for general environment, F (2, 72) = 3.38, p < .05. A series of follow-up t-tests revealed that in each of the four cases the effect was due to the difference between the control group versus the two experimental cells. The means for these four variables are given in Table 4. A complete presentation of the cell means and standard deviations appear in Appendixes A and B respectively.

As Table 4 makes apparent, the direction of attitude change that took place as a function of the FITD manipulation was not consistent across variables. The mean for general environment increased relative to the control group, whereas the means for the remaining three variables decreased. These results offer no support for Hypotheses 4, 5, or 6, which were concerned with the effects of request size, execution, and their interaction respectively. The positive change in the general environment may be considered support for Hypothesis 7.

#### Discussion

As many studies have demonstrated, the FITD technique enhances compliance. The results of the present study reconfirm that finding; a reliable FITD effect was observed in the compliance conditions. Furthermore, the effect was similar in magnitude to the estimates produced by meta-analyses of existing FITD studies (Beaman et al., 1983; Dillard et al., 1984; Fern et al., 1986).

Neither the degree of execution involved in the first request nor the size of that request appeared to influence the proportion of persons complying with the second request. That conclusion must be tempered by the fact that the design may have lacked sufficient power to detect a weak effect. But for effects on the order of those reported by Beaman et al. (1983) or Fern et al. (1986), that is, r = .20, power was .72. That figure is slightly below Cohen's recommendation of .80, yet still high enough to engender confidence in the results.

Although most of the attitude measures proved impervious to the FITD manipulation, those which did manifest change present a provocative pattern. It appears that compliance with the first request caused an increase in positive affect toward the general topic of the environment but a decrease in the belief that acquiescence was caused by attraction to the source, emotional benefit, or feelings of obligation. The overall pattern seems to be one that takes into account self-presentational concerns of a particular sort.

Baumeister (1982) distinguishes two forms of the self-presentation motive. One strives to please a particular audience. Another type of self-presentation is intended to create, maintain, or modify one's public self. The latter motive, which seems to be manufested in the data, represents a desire to bring one's public self closer to one's ideal self. Awkwardly but accurately stated, this entails presenting one's self to oneself. Evidence that people take cognitive liberties with reality so as to make the outcome of that process more favorable comes from a variety of sources (Arkin, Cooper, & Kolditz, 1980; Miller & Porter, 1988; Mullen & Riordan, 1988; Whitley & Frieze, 1986).

Thus, one account that can be given to the attitude data is that when persons who agreed to the first request had to interpret their behavior, they selected the most flattering option. If one assumes that prosocial action, such as aiding an environmental organization, between the issue is an important one, as opposed to more ephemeral concerns such as attraction to the requester, then the pattern of attitude change might reasonably be construed as ego

enhancing. To test this interpretation, a small follow-up study was conducted.

#### FOLLOW-UP STUDY

Support for the claim that the self-inference process activated by the first FITD request is biased toward self-enhancement might take two forms. First, ratings of the social desirability of each of the reasons for complying should show a pattern similar to the mean ratings obtained in the FITD-attitude groups in the main study (Hypothesis 8). Second, if there are variations in the perceived desirability of the different reasons, such differences should be manifested most clearly in those reasons which changed as a result of the first request in the main study. More specifically, the general environment reason should be rated as significantly more desirable than the source, emotional benefits, or appearances and obligations reasons (Hypothesis 9).

#### Method

# Participants, Procedure, and Materials

The participants were 18 students enrolled in an undergraduate communication class. They were informed that a study was being conducted to evaluate the social desirability of different reasons for complying with various door-to-door requests. To provide them with the background necessary for making the social desirability judgments, they were given a sheet with one of the scripts (10 envelopes or 35) for the first request used in the main study. This was followed by these words:

As part of an earlier study, we surveyed people who agreed to address the envelopes. The remainder of this questionnaire consists of a summary of their reasons for agreeing. Your task is to evaluate those reasons in terms of their social desirability. A reason is socially desirable to the extent that most people would judge it as good or right.

None of the participants asked for further clarification of the phrase social desirability. The second page of the questionnaire presented a 7-point semantic differential scale anchored at 1 with very socially

undesirable and at 7 with very socially desirable. Ten statements, which were intended to capture the ten types of reasons uncovered in the preliminary study and used in the main study, were presented after the scale. Table 5 gives the wording of the statements. Keepondents were instructed to evaluate each statement in terms of its social desirability.

#### Results and Discussion

# Preliminary Analyses

Since two versions of the questionnaire were used (10 envelopes vs. 35 envelopes), a series of independent sample t-tests was conducted to test for between-group differences on the ten dependent variables. The t values ranged in absolute magnitude from .24 to 1.82 with a mean of .94. Although none of the tests attained traditional levels of significance, the value for the source variable was close at t = 1.82, p = .089, 10 envelope M = 3.66, 35 envelope M = 2.22.

# Tests of the Hypotheses

Hypothesis 8 specified that the pattern of means produced by the social desirability judgments would be similar to the pattern of means produced by the FITD groups in the main study. To test this prediction, a correlation was computed between the two sets of means. The resulting value of r = .62 (10), p < .05, is compatible with the claim that an ego-enhancing motive influences the self-inference process.

Additional evidence of a self-enhancing bias comes from the analysis of mean differences. Hypothesis 9 specified that the general environment reason would be seen as significantly more desirable than source, emotional benefits, or appearances and obligations reasons. Such a pattern of differences would mirror the changes in attitudes obtained in the main study. A series of dependent sample *t*-tests was conducted to test this prediction, and as Table 5 shows, the anticipated differences were obtained, as well as some unhypothesized differences between the remaining variables and general environment. This is also consistent with the notion that the attitudinal changes that occur following the first request in the FITD sequence are governed by the desire to portray one's self to oneself in a flattering manner.

TABLE 5
A Comparison of the Social Desirability of the
Reasons for Complying with the RECYCLE MADISON Request

	Social Desirability Ratings			
Reason and Statement	Мент	Standard Deviation	çª.	
Good cause: Recycling helps to maintain the environment.	5.94	.94	1.72	
Good principle. Regardless of the issue, helping is a good thing to do.	5.28	1.56	2.51*	
Source: The person who asked me was attractive, and I wanted him or her to like me.	2 94	1.80	7.62**	
Emotional benefit I would have felt bad if I hadn't agreed to help. *	3.56	1.25	7.79**	
Appearances and obligations: I felt obligated, and I didn't want it to look like I didn't care.	3.61	46م ا	7 08**	
Self: I find it hard to say no, so I usually just do what people ask.	2.50	1.58	9.64*	
Time/energy threshold: It was easy to do and didn't require much time	4.83	1.42	4.64**	
Task effectiveness: I thought it would work.	5.00	1,19	4.42**	
Activism: I am the kind of person who gets involved with good causes.	5.56	1.10	2.83*	
General environment: In general, environmental issues are important, and I am concerned about them.	6.39	.78		

NOTE: The response scale ranged from 1 = very socially undesirable to 7 = very socially desirable

## GENERAL DISCUSSION

This investigation was conducted for the purpose of testing some major tenets of the self-perception account of the FITD phenomenon. The results suggest that a self-inference account of the FITD is viable, but it is one that is not quite of the form suggested by self-perception theory. Several issues deserve elaboration

# Behavioral Coding and Attitudinal Mediation

At the outset of this article, it was argued that previous attempts to put the altifudinal mediation hypothesis to test may have been frustrated by reliance on theoretical entities that were not phenomenologically grounded. In the present study, that potential problem was avoided by creating a set of attifudinal variables that was based on persons' perceptions of reasons for agreeing to the specific request used in this study. This approach proved successful in that it isolated those attifude variables which were weakened by the first request. But the key piece of evidence in support of a self-inference explanation of the FFTD, that is, the increase in the general environment variable, was not drawn from the free-response data of the preliminary study. Instead, it came from Freedman and Fraser's (1966) post hoc theorizing about the operation of the effect. This theoretically fortuitous finding suggests the need for a more elaborated conceptual structure that is attentive to differences among attitudes.

One crucial difference between the participant-generated reasons for agreeing to the first request and the researcher-generated reasons was the level of abstraction. Persons in the main study were instructed to focus on each of the participant-generated reasons with regard to why they agreed to a specific request to help RECYCLE MADISON; however, for the researcher-generated reasons they were told to consider themselves "in general." Thus, the data imply that individuals prefer relatively more abstract explanations of their own actions. Clearly, to do so is more cognitively efficient, since it requires fewer attitudes to guide behavior. Moreover, this apparent preference for an abstract account of one's own behavior is compatible with the theory of action identification (Vallacher & Wegner, 1985), which states that "[w]hen an action can be identified at both a higher and a lower level, there will be a tendency for the higher level identity to become prepotent" (p. 25). The rich conceptual framework contained in action identification theory offers a potentially valuable means for increasing our understanding of sequential request phenomena (see especially Vallacher & Wegner, 1985, pp. 138-143).

Despite the evidence presented here in favor of the attitudinal mediation hypothesis, certain aspects of the study require that we be somewhat circumspect about a conclusion. Foremost among them is the reliance on a between-subjects design. Although a repeated-measures approach would have constituted a stronger test, the likelihood of

<sup>\*</sup>All comparisons are made against the General Environment mean.

p < 05; p < .001.

reactive measurement disrupting or confounding the labile FITD effect was judged to be too great. Although strong causal evidence of attitudinal mediation is still lacking, this study is the first to provide any reliable evidence of attitudinal mediation for the FITD effect since it was first studied a quarter of a century ago.

Another potential concern revolves around the nature of the attitude control group. Although self-perception theory clearly indicates that observing the behavior of another is equivalent to observing one's own behavior, the effects of imagining oneself agreeing to a request may not be precisely parallel to actually agreeing to that behavior. And in fact, comparisons between the control and the FITD groups did reveal attitudinal differences. Could the imagine-self manipulation have artificially inflated the discrepancy between the control and the experimental groups? There is evidence to suggest that, rather than weaken our confidence in the results, the imagine-self procedure should actually strengthen it. Persons who imagine themselves taking part in a particular situation show increases in intention to engage in that behavior (Anderson, 1983) and come to see the situation as more likely to actually take place (Gregory, Cialdini, & Carpenter, 1982). In the context of the present study, it should be expected that imagining oneself agreeing to the first request should enhance the similarity between the control and the experimental groups. Thus, the fact that the two groups still show differences should make us more, rather than less, sanguine about the results.

# The Noneffects of Request Size and Execution

The data provided no hint of support for the hypotheses concerned with quantity of behavior. The absence of an effect for execution lends further credence to the position advanced by Dillard et al. (1984), that is, that execution bears no relation to the likelihood of compliance with the second request when the request is prosocial and there is no incentive contingent on compliance with the first request. Similarly, the observed null relationship between request size and compliance is completely compatible with Beaman et al.'s (1983) meta-analysis and, to a lesser extent, with Fern et al.'s (1986) report (which showed a request-size effect only in those studies which had 80% or better compliance with the first request). Hence, we must begin to take seriously the possibilities that (a) quantity of behavior effects are not operative within the confines of the FITD paradigm or (b) if quantity

of behavior does impact either cognition or behavior, it does see only under certain conditions that are not yet well established.

# Systematic Versus Heuristic Processing

Relying on studies of Information processing, Chaiken (1980, 1987) has drawn a distinction between the systematic and the heuristic modes of processing persuasive messages. The systematic mode references those instances in which an individual is attending to, attempting to comprehend, and evaluating the message. In contrast, persons are processing heuristically when they rely on simple decision rules such as "experts can be trusted."

Essentially, the same distinction has been applied to self-inference processes (Locksley & Lenauer, 1981). Whereas self-perception theory would seem to suggest that persons sample their own behavior systematically—thus, more behavior results in more attitude change—Locksley and Lenauer hypothesize that people operate heuristicatly: "...individuals may attend to the absolute frequency of actual occurrences of traitlike behavior instead of relative frequencies such as the ratio of actual occurrences to nonecourrences across the domain of situations in which traitlike behavior is possible" (p. 267).

The present study has implications for Chaiken's (1987) position, as well as that of Locksley and Lenauer (1981). Regarding the former, the demonstrated existence of the FITD effect (Beaman et al., 1983; Dillard et al., 1984; Fern et al., 1986), in combination with the evidence of attitudinal effects following from the first request, hints at the existence of a heuristic of exactly the sort suggested by Bem (1967) in the off-quoted interaction, "Do you like brown bread?" "I guess I do, I'm always eating it" (p. 186). The present study provides the first reliable support in the FITD paradigm for the contention that one's own actions may serve as persuasion cues.

Second, the absence of either attitudinal or compliance effects for the two behavioral quantity variables is generally compatible with Locksley and Lenauer's (1981) claim that persons make trait inferences heuristically. Systematic information processors should adjust their perceptions of self on the basis of the size of the request and the amount of effort given to carrying out the request. But persons engaged in heuristic processing should consider the available data about themselves on a more superficial basis. As this study shows, a single action may be sufficient to bring about a change in self-perception.

There was no evidence that persons weighted their inference making on the basis of either of the quantity of behavior variables. Thus, these data suggest a threshold model of self inference. Probably under conditions of low involvement and/or proattitudinal topics (cf. Fazio, Zanna, & Cooper, 1977), the heuristic takes the form of "If I agree to do it, I must like it (regardless of how much or how little I've agreed to do)."

# A Hydraulic Cognitive System?

One important characteristic of the self-inference process is the apparent reciprocal relationship among the attitudinal mediators of compliance. The process seems to parallel the operation of a hydraulic system. When pressure is applied at one point in the system, the results of that pressure are manifested elsewhere in the system. A similar pattern is evident in the attitude data. When one explanation for compliance to the first request was strengthened (i.e., attitude toward environmental issues), other explanations were weakened (i.e., source, emotional benefit, and appearances and obligations).

The self-inference process in the FITD paradigm was further distinguished by the presence of an ego-enhancing bias. Evidence in favor of this claim was initially observed in the pattern of attitude data in the main study and was later corroborated in the follow-up study. This effect is similar to the self-serving bias, that is, the lendency to take credit for success but not for failure (Bradley, 1978), and to the self-centered bias, that is, the tendency to take more than one's share of credit for jointly produced outcomes (Ross & Sicoly, 1979). These biases, as well as the one observed in the present study, may all be manifestations of a pervasive tendency toward ego maintenance/enhancement.

#### SUMMARY

This investigation shed considerable light on the mechanisms that underlie the FITD effect. It brought support to a self-inference explanation insofar as one attitude (general environment) was strengthened by the first request. Evidently, other attitudes were weakened by that same request. It was suggested that the changes in the cognitive system that resulted from agreement to the first request might be described as hydraulic. Evidence was presented that showed that this

hydraulic relationship might be influenced by a desire to see oneself in a socially desirable manner. There was no indication that request size or execution had any impact on attitude change or compliance with the second request.

APPENDIX A
Attitude Means by Condition

		** · · · · · · · · · · · · · · · · · ·				
	Control Groups Request Size		FITD Groups			
			Request Size		Execution	
	Small (n = 13)	Large (n = 10)	Small (n = 15)	Large (n = 15)	Passity (n = 14)	Active (n = ii)
pecific						
Good cause	2.38	2.70	2.50	2.56	2.67	2.31
Good principle	.92	.90	66	60	92	.90
Source	1.30	1.20	-21	.23	39	63
Emotional benefit	1.53	2.00	.80	1.00	71	1.00
Appearances and						
obligations	1.36	1.40	.48	.60	32	70
Seif	.30	.66	.31	4.2	47	60
Time/energy	1.80	1.95	1.83	1.83	2.10	1.81
Task effectiveness	1.30	1.70	1.26	1.26	1.64	1.36
General						
Activist	3.88	3.55	3.93	4.03	3.75	3.77
Environment	3.76	3.80	4.06	4.33	3.97	4-36
				110		~

APPENDIX B
Attitude Standard Deviations by Condition

	Control Groups  Request Size			FITD Groups		
			Request Size		Execution	
	Small (n = 13)	Large (n = 10)	Small $(n = 15)$	f.arge (n = 15)	Passite (n = 14)	Active (n = 1)
specific					200	
Good cause	.74	.42	59	.59	.42	.87
Good principle	1.18	.73	81	1.05	1.07	1.04
Source	.83	1.00	.37	4.5	.78	.95
Emotional benefit	1.05	.47	101	.84	.91	77
Appearances and					Α,	
obligations	.97	.76	.57	.62	.39	.72
Self	63	73	.52	.59	.55	.61
Time/energy	.66	76	.99	.79	.52	.87
Task effectiveness	1 10	6.7	.96	.96	.84	1.02
General						
Activist	36	64	.56	.81	.42	.60
Environment	.64	33	.55	57	36	73

#### NOTES

- 1. The results reported in the body of the article do not include those persons who decilined the first request. An analysis carried out with those persons included, however, yielded essentially the same results,  $X^2$  (1, N = 171) = 7.43, p < 01.
  - 2. The formula for this correction is as follows

$$r = \frac{r}{\sqrt{4pq(1-r^2)+r^2}}$$
 where  $pq = \frac{N_r N_r}{N^2}$ 

#### REFERÊNCES

- Anderson, C. A. (1983). Imagination and expectation: The effect of imagining behavioral scripts on personal intentions. *Journal of Personality and Social Psychology*, 45, 293-305.
- Arkin, A., Cooper, H., & Kolditz, T. (1980). A statistical review of the literature concerning the self-serving bias in interpersonal influence situations. *Journal of Personality*, 48, 435-448.
- Baumeister, R. F. (1982). A self-presentational view of social phenomena. Journal of Personality and Social Psychology, 91, 3-26.
- Beaman, A. L., Cole, M. C., Preston, M., Klentz, B., & Steblay, N. M. (1983). Fifteen years of foot-in-the-door research: A meta-analysis. Personality and Social Psychology Bulletin, 9, 181-196.
- Bem, D. J. (1967). Self-perception: An alternative interpretation of cognitive dissonance phenomena. Psychological Review, 74, 183-200.
- Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 6, pp. 1-62). New York: Academic Press.
- Bradley, G. W. (1978). Self-serving biases in the attributional process: A reexamination of the fact or fiction question. *Journal of Personality and Social Psychology*, 36, 56-71.
- Cantrill, J. G., & Seibold, D. R. (1986). The perceptual contrast explanation of sequential request strategy effectiveness. Human Communication Research, 13, 253-267.
- Chaiken, S. (1980) Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Persunality and Social Psychology*, 39, 752-766.
- Chaiken, S. (1987). The heuristic model of persuasion. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), Social influence: The Ontario symposium (Vol. 5, pp. 3-40). Hills-dale, NJ: Lawrence Erlbaum.
- Cohen, J. (1987). Statistical power analysis for the behavioral sciences (rev. ed.). Hillsdale, NJ: Lawrence Erlbaum.
- DeJong, W. (1979). An examination of self-perception mediation of the foot-in-the-door effect. Journal of Personality and Social Psychology, 37, 221-239.
- Dillard, J. P., & Burgoon, M. (1982). An appraisal of two sequential-request strategies for gaining compliance: Foot-in-the-door and door-in-the-face. Communication, 11, 40-57.
- Dillard, J. P., Hunter, J. E., & Burgoon, M. (1984). Sequential request persuasive strategies: Meta-analysis of the foot-in-the-door and the door-in-the-face. Human Communication Research, 10, 461-488.

- Fazio, R. H. (1987). Self-perception theory: A current perspective. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), Social influence. The Onlario symposium (Vol. 5, pp. 129-150), Hillsdale, NI: Lawrence Erlbaum.
- Fazio, R. H., Sherman, S. J., & Herr, P. M. (1982). The feature-positive effect in the self-perception process: Does not doing matter as much as doing? *Journal of Person*ality and Social Psychology, 42, 404-411.
- Fazio, R. H., Zanna, M. P., & Cooper, J. (1977). Dissonance and self-perception: An integrative view of each theory's domain of application. *Journal of Experimental Social Psychology*, 13, 464-479.
- Fern, E. F., Monroe, K. B., & Avila, R. A. (1986). Effectiveness of multiple request strategies: A synthesis of research results. Journal of Marketing Research. 23, 144-152.
- Fish, B., & Kaplan, K. J. (1974). Does a "foot-in-the-door" get you in or out? Psychological Reports, 34, 35-42.
- Freedman, J. L., & Fraser, S. C. (1966) Compliance without pressure: The foot-in-the-door technique. Journal of Personality and Social Psychology. 4, 195-202.
- Gregory, W. L., Cialdini, R. B., & Carpenter, K. M. (1982). Self-relevant scenarios as mediators of likelihood estimates and compliance: Does imagining make it so? *Journal of Personality and Social Psychology*, 43, 89-99.
- Hunter, J. E. (1980). Factor analysis. In P. R. Monge & J. N. Cappella (Eds.), Multivariate techniques in human communication research (pp. 229-257). New York: Academic Press.
- Hunter, J. E., Schmidt, F. L., & Jackson, G. B. (1982). Meta-analysis: Cumulating research findings across studies. Beverly Hills, CA: Sage.
- Landis, J. R., & Koch, C. G. (1977). The measurement of observer agreement for categorical data. Biometrics, 33, 159-174.
- Locksley, A., & Lenauer, M. (1981). Considerations for a theory of self-inference processes. In N. Cantor & J. F. Kihlstrom (Eds.), Personality, cognition, and social interaction (pp. 263-277). Hillsdale, NJ: Lawrence Erlbaum.
- Mdler, D. T., & Porter, C. A. (1988). Errors and biases in the attribution process. In L. Y Abramson (Ed.), Social and cognition and clinical psychology: A synthesis (pp. 3-32). New York: Guillors.
- Mullen, B., & Riordan, C. A. (1988). Self-serving attributions for performance in naturalistic settings: A meta-analytic review. Journal of Applied Social Psychology, 18, 3-22.
- Rittle R H (1981). Changes in helping behavior: Self-versus situational perceptions as mediators of the foot-in-the-door effect. Personality and Social Psychology Bulletin, 7, 421-437.
- Ross, M., & Sicoly, F. (1979). Egocentric biases in availability and attribution. Journal of Personality and Social Psychology, 37, 322-337.
- Scott, C. (1937). Modifying social consciousness behavior: The foot-in-the-door technique. Journal of Consumer Research, 4, 156-164.
- Seligman, C., Bush, M., & Kirsch, K. (1976). Relationship between compliance and the foot-in-the-door paradigm and size of first request. Journal of Personality and Social Psychology, 33, 517-520.
- Vallacher, R., & Wegner, D. M. (1985). A theory of action identification. Hillsdale, NJ Lawrence Erlbaum.
- Whitley, B. E., Jr., & Frieze, J. H. (1986). Measuring causal attributions for success and failure: A meta-analysis of the effects of question wording style. Basic and Applied Social Psychology, 7, 35-51.

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