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The Hotline: an application of achievement motivation and attribution theory/

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THE HOTLINE:

An Application of Achievement Motivation

and Attribution Theory

A thesis presented

by

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ACKNOWLEDGMENTS

Looking back over the (I won't admit exactly how many) years it took me to get my Masters thesis done, I'd like to feel that I can view it all now with perspective, wisdom, humor and maturity . . . I can't.

There were good and bad aspects to this experience. The good part is that it's over (I hope . . . of course, the bindery could always go up in flame just as my thesis . . .). Along with that is the disproof of my long held (cherished?) belief that "I can't possibly do it", and whatever emotional baggage that went along with that. I wish I could also say that the experience has been "character-building". It hasn't. Like I said, the best thing I can say for it is that it's over.

The bad parts I don't really want to review. During my best moments I feel that my difficulties reflected my own personal immaturity hitting its head against an educational system that is not always responsive to individual growth needs and is therefore not always truly educational. During my worst moments I'm a lot more paranoid than that.

Overall this thesis represented a personal nightmare-monster-fire-breathing-dragon that has finally been slain. I'd like to thank the many people who helped me to do it-- "The Dragon Slayers".

The Hotline Group--Bette, Gayle, Beth, Danny, Dave, Randy, Shelly and Steve--were an inspiration to me in their

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INTRODUCTION

Hotlines are a telephone service through which people who feel themselves to be in a state of crisis can receive immediate contact with interested and helpful volunteer listeners. Hotlines are a relatively new phenomenon in the field of mental health services. They are representative of a new type of response to the growing realization of the need for innovative approaches to expanding the reach of preventive mental health care services. Hotlines represent one of the ways in which persons without formal training in mental health are being utilized in roles which previously did not exist at all in the mental health field.

Such programs carry with them the potential for major improvements in the mental health manpower situation. However, as Eisdorfer and Golann (1969) point out, the very fact of being innovative brings an inherent set of problems that can threaten the effectiveness of nontraditional mental health approaches. One of the salient problems is the difficulty of establishing performance standards and guidelines for a new role that has no historic basis. The ambiguity in the role of a Hotline volunteer can be frustrating for the trainee and inevitably heightens his level of confusion and anxiety.

The fact that volunteers experience frustration in their work has been made apparent in contacts with several Hotline agencies in Western Massachusetts. Some indirect evidence

stems from the large turnover rate in volunteers at all of
these agencies. At the Franklin County Hotline, for example,
only twenty volunteers still served at the end of the year,
out of a total of one hundred and twenty trained during the
year. The staff also finds that it is difficult to keep all
of the scheduled shifts covered. It often requires a good
deal of urging to persuade each volunteer to cover even one
four-hour shift per week.

A more direct expression of anxiety about role definition
is the volunteers' requests of the professional trainers for
more specific "formulas" for handling problems. In particu-
lar, the trainers are frequently asked to revise and expand
the training manual, primarily to provide more information
about the dynamics behind particular problems. The staff
seems to feel that, in part, these requests reflect a feeling
that the volunteers sometimes are "in over their heads", and
lack the skills required to competently handle the problem
presented to them.

It is the intent of this study to examine some of the fac-
tors operating in a Hotline service that might influence the
volunteers' satisfaction with their work.

Informal conversations with the staff and volunteers at
the Franklin County Hotline, and concerns expressed at staff
meetings and volunteer group meetings, suggest some of the
needs that the volunteers expect to be able to meet by work-
ing at the Hotline. Some of those needs might be considered

to be extrinsic to the purpose of the Hotline. In particular, the Hotline seems to serve a social function for the volunteers (e.g. weekly group meetings; volunteers working shifts in teams). While extrinsic needs are seen to be important in determining volunteer satisfaction, and to have implications for the structure of the work situation, they will not be dealt with in this study. My concern is with the nature of volunteer satisfaction as it relates to the demands of the calls themselves. As regards the intrinsic needs of the volunteers, one may infer from the above sources that the volunteers get satisfaction from calls that: a) present some degree of challenge; b) are inherently interesting problems; c) are interesting by virtue of the infrequency with which they occur; d) allow the volunteer to feel that he has accomplished something; e) enable the volunteer to feel competent in his ability to handle the situation. Two basic dimensions that seem to emerge are the need for excitement and the need to feel competent.

While the interest value of the call inheres primarily in the nature of the call itself, the volunteer's feelings of competence would seem to be determined by the nature of the role the volunteer is expected to play in relation to the caller.

In a situation where role definitions and performance standards are ambiguous, it is expected that "other" factors will determine the level of satisfaction that an individual

will experience with regard to his own performance. The so-
cial psychological literature in the areas of achievement
motivation and attribution theory provides a meaningful way
of conceptualizing the nature of these other factors.

Rationale for This Study

The concept of achievement motivation infers an innate
tendency in individuals to strive for mastery in situations
requiring skill to attain a successful outcome. The attri-
bution model (Weiner et al., 1971) conceptualizes the achieve-
ment motive as a cognitive disposition. Briefly, this model
contends that individuals utilize available information con-
cerning an achievement-related event in order to infer the
causes of success and failure. Cognitive beliefs about cau-
sality determine the affective response of pride or shame and
an expectancy of future success or failure. Expectation of
future outcome has consequences for the tendency to approach
achievement tasks, persistence in the face of failure, and
intensity of performance.

Individuals attribute outcome in achievement situations
to four elements--ability, effort, task difficulty, and luck.
The four causal elements can be comprised within two basic
dimensions: locus of control (internal vs. external) and de-
gree of stability (fixed vs. variable). Internal components
(ability and effort) describe qualities of the person under-
taking the activity, while external components (luck and task

difficulty) describe properties external to the person, or, environmental factors. Fixed elements (ability and task difficulty) are relatively stable, while variable components (effort and luck) are relatively changeable.

Pride and shame are considered to be primarily determined by the locus of control, rather than the stability dimension of causality. The experience of pride in success or shame in failure is a function of the degree of perceived personal responsibility for the outcome of the action.

Expectation of future outcome is determined by the stability dimension. Attribution to the stable elements of ability and task difficulty lead to the expectation of consistency between past and future behaviors. Attribution to the unstable elements of effort and luck imply that inconsistencies between past and future behaviors may occur.

Numerous cues may influence an individual's judgment about the relative importance of the four factors in determining an achievement outcome. For example, the percentage and temporal pattern of past success experiences at similar tasks influences the judgment of ability; social norms indicating the performance of others at the task or characteristics of the task determine the assessment of task difficulty; the randomness of the outcomes or the perceived nature of the task affect the judgment of luck; while perceived muscular tension or pattern of performance determines the assessment of effort.

The attribution model of achievement motivation may be portrayed by the following schematic diagram:

stimulus → mediating cognitions about causality → locus of control → affect → instrumental response ↘ stability → expectancy ↗
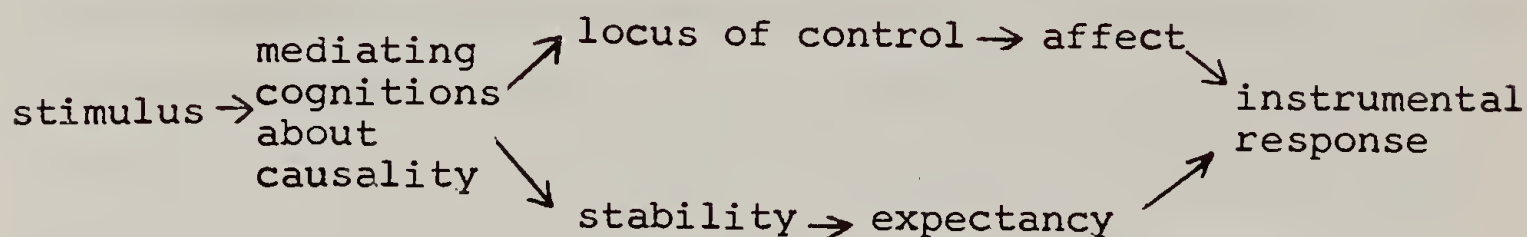
Frieze and Weiner (1971) report that the outcome of an achievement event may also influence the assessment of the relative impact of the four causal dimensions. They found that success is more likely to be attributed to internal factors than is failure, while there is a tendency to attribute failure to external sources. Weiner et al. cite other studies (i.e., Hoppe, 1931; Weiner and Kukla, 1970) in which similar results were obtained.

Applying the attributional model to the Hotline situation, the following predictions may be derived:

1. When phone calls are perceived as successful, volunteers tend to attribute the outcome to their own ability, effort and attitude (internal locus of control).

2. When phone calls are perceived as unsuccessful, volunteers tend to attribute the outcome to the difficulty of the task and the caller's attitude (external locus of control).

3. Volunteers experience more satisfaction with their own performance when they perceive themselves as having succeeded in helping a caller rather than having failed.

Frieze and Weiner also demonstrated that the more diffi-
cult the task (where difficulty of the task is inferred from
information about the percentage of others who are successful
in performing that task), the more ability is inferred as the
cause of success. Since pride in success is postulated to be
directly related to the degree of perceived personal respon-
sibility for success, the present study predicts that:

4. Volunteers experience more satisfaction with their
own performance when they perceive a successful call as dif-
ficult rather than easy.

One additional result from the Frieze and Weiner study
relates the way individuals attribute responsibility for suc-
cess and failure to the percentage of prior success. It was
found that when current outcome is inconsistent with prior
outcome (success after past failures or failure after a his-
tory of repeated success) attributions to the unstable vari-
ables (luck and effort) are greatest. Attributions to the
stable components (ability and task difficulty) are greatest
when past behavior is consistent with current outcome. Fea-
ther and Simon (1971) report similar results when expectation
is measured by asking subjects to rate how confident they are
that they can pass a task rather than providing norms about
past percentage of success. They found that unexpected out-
comes were attributed to variable external factors and ex-
pected outcomes to stable internal factors. In line with the
results reported by Feather and Simon and hypotheses outlined
above, it is predicted that:

5. Confidence in one's ability as a Hotline volunteer is positively correlated with attribution of success to one's ability and failure to caller's attitude.

6. Confidence is positively correlated with satisfaction over one's performance following successful calls.

7. Confidence is negatively correlated with attribution of success to caller's attitude and failure to lack of ability.

Implications. The present study differs from previous research in the areas of achievement motivation and attribution theory along two dimensions. The first is the use of a field experimental design. Other studies in these areas have used either laboratory experimental or laboratory simulation designs. A field experimental design permits direct application of experimental results to the understanding of events in the actual Hotline situation. The second dimension is in the use of a situation requiring interpersonal skills. Although the motive to achieve as defined by Atkinson and by Weiner is a concept with wide applicability, predictions derived from these theories have been limited to intellectual achievement. The present study presumes that these theories will prove applicable to interpersonal accomplishments as well.

The exploration of the achievement motive in a variety of situations requiring skills of different natures (e.g. intel-

lectual, interpersonal, physical) might shed some light on a current problem in the achievement motivation literature: the failure of these theories to predict the behavior of females. Prior studies of achievement motivation and locus of control with females have yielded inconsistent and confusing results.

Matina Horner (1970), in evaluating the results of achievement motivation studies on women, has suggested that women in our society feel conflicted in achievement situations. On the one hand, American society highly values and rewards achievement behaviors, while on the other hand, women who achieve are made to feel anxious, guilty, unfeminine, and selfish. Expanding on Atkinson's theory of achievement motivation, Horner postulates that there exists in women a psychological barrier to achievement that she calls the motive to avoid success. This fear of success receives its impetus from the expectancy held by women that success in achievement situations will be followed by negative consequences, including social rejection and the sense of losing one's femininity.

If Horner's reasoning is viewed in the light of attribution theory, it might be predicted that females are conflicted about achievement in intellectual situations, being anxious about conflicting expectancies for reward and punishment, but not in interpersonal situations. Since skill in interpersonal situations is traditionally considered to be appropriate for women in our society, striving for success in such

situations will be accompanied by cognitive expectancy of re-
ward for success.

In order to maximize the transferability of results from
this study to the Hotline situation two conditions were es-
tablished: 1) actual Hotline volunteers served as subjects,
and 2) the actual conditions of the Hotline phone calls were
simulated as closely as possible.

METHOD

Subjects

Currently there are twenty volunteers working on the lines
at the Franklin County Hotline. The twelve (60%) who are fe-
males between the ages of 16 and 30 were asked to participate
in the present study. After discussing the conditions of the
experiment, eleven of the twelve potential subjects expressed
a willingness to participate. One of the volunteers was later
dropped from the study since, after the experiment had been
in progress for three weeks, she had not yet put in any shifts
on the phones. Thus, ten volunteers served as subjects in
the experiment.

One initial concern had been that subject self-selection
might operate if the volunteers perceived the experiment as
being an evaluative task. This might lead only the most con-
fident individuals to participate in the study. This pro-
blem was dismissed since only two subjects were dropped from

the study and staff members did not rank them particularly low in confidence. On the other hand, virtually all of the volunteers did perceive the study to be evaluative, despite the experimenter's instructions to the contrary. Most subjects admitted to being nervous at the beginning of the experiment, feeling that their work was being "tested". At the end of the experiment, some subjects remained uneasy about the study, others felt they had adapted and were unconcerned about it, while a few volunteers welcomed the opportunity to evaluate their own work. There did not seem to be any relationship between the volunteer's reactions to the study and their rankings on the measure of confidence.

Confederates

The interactionist literature (Pervin, 1968) indicates that individuals prefer friendly associations with others who are compatible to themselves in interests, values, or personality. Informal conversations with the Hotline volunteers suggest that this relationship is relevant to the Hotline situation. Volunteers feel more at ease when talking to callers of the same sex and of approximately the same age as themselves. Accordingly, the confederates chosen were four females between the ages of 16 and 30, enlisted from the undergraduate population at the University of Massachusetts.

Measures

Each of the seven staff members of the Hotline (coordinator, assistant coordinator, two trainers, three group leaders) was requested to complete the ratings of volunteer competence and confidence (see Appendix A) for each of the ten subjects. The form allowed the raters the option to omit rating any individual with whose work they felt insufficiently familiar to judge. As a result, at least one potential score was left blank for each subject. Missing scores ranged from one to four per individual for ratings of competence and from one to three per individual for ratings of confidence. There were thus 5.4 ratings of competence and 5.5 ratings of confidence for each volunteer, on the average.

For each of the two measures, a correlation matrix (Pearson product-moment) was computed, assessing the degree of rating agreement for each judge with every other judge. The mean correlation between judges was .68 for confidence and .80 for competence. The ten subjects were rank-ordered for confidence and competence on the basis of averaging their scores on each of these two measures.

The dependent measures were derived from a questionnaire (see Appendix B) which participants were asked to fill out in addition to their regular logs following every phone call they handled. For each participant a booklet was prepared containing a number of copies of the Volunteer Questionnaire,

blank sheets for comments or questions, and instructions for filling it out (see Appendix C). Along with the booklet, each subject was supplied with several envelopes and instructed to seal all completed questionnaires in an envelope at the end of every shift covered. This was done in order to insure that subjects' responses would be known only by the experimenter, and could not be seen by other volunteers or staff members at the Hotline.

Three of the questions constituted checks on the experimental manipulations ("How important do you feel this caller's problem was?"; "How much change was there in the caller's feelings from the beginning to the end of the call?"; "How difficult was this call to handle?") and were rated on a seven-point scale where seven represented high importance, high change, and high difficulty respectively. Volunteers were also asked to guess whether each call they handled was one of the experimental calls, and to rate the certainty of their responses on a seven-point scale where seven represented high certainty.

The dependent measures were the volunteers' rating of satisfaction with their handling of the call and their assessment of the impact of five factors (task difficulty, volunteer's technique, caller's attitude, volunteer's attitude, and effort) on the outcome of the call. Satisfaction was rated on a seven-point scale where seven represented high satisfaction. The impact of each of the five causal categories was rated on a seven-point scale which ranged from -3 to +3 where -3 represented high negative effect on outcome, 0 represented no effect, and +3 represented high positive effect.

In studies of this kind subjects are usually required to assess the impact of causal factors in a different manner. Following success, subjects rate the impact of good luck, skill, effort, and task ease, and following failure, they rate the impact of bad luck, lack of ability, lack of effort, and task difficulty on scales that range from "had no effect" to "had a very great effect." This method sets certain constraints on the responses of subjects. For example, it would not be possible for a subject to attribute failure to bad luck, lack of effort, task difficulty, and high ability. Although it may seem to be illogical for a subject to claim high ability as the cause of a failure, some further thought suggests situations in which such a judgment could conceivably occur. For example, one could imagine that, following an unsuccessful call, a particular volunteer might think "Well, I didn't help that caller solve his problem, but he probably would have felt worse if I hadn't had such a sympathetic attitude." Or it may be that subjects do not respond as logically to success and failure as Weiner's discussion suggests. For example, a subject might find it difficult (unpleasant?) to account for failure and might claim good luck, an easy task, substantial effort, and skill in spite of the fact that he failed at the task. In fact, some of the results that Frieze and Weiner report (generally lower ratings following failure than success) lead them to suggest that "in general, it appears easier for the subjects to 'understand' the causes of success than failure" (p. 600).

It seems possible, then, that the method of assessing subject attributions reported in the literature may impose a

logic on subject responses that would not otherwise exist. The measurement of subject attributions in the present study allowed a wider range of responses. Subjects could report good or bad luck, ability or lack of ability, effort or lack of effort, task difficulty or task ease as causal factors for either success or failure.

For all of the dependent measures a mean score was obtained for each volunteer by averaging her responses over the eight experimental calls.

Procedure

The general nature of the study was explained to each volunteer individually. She was told that the study seeks to examine the relationship between various aspects of phone calls and the volunteer's evaluation of the call, and that participants would be asked to fill out a questionnaire in addition to their regular logs following every phone call they handled for the duration of the study (one to two months). During the course of the experiment each participant would receive eight experimental calls. The data to be collected was the volunteer's own evaluation of each experimental phone call; no independent evaluation of the handling of the experimental calls would be made. Each volunteer was assured that her individual responses would be kept confidential, although the overall results of the experiment for the group would be made available to all of the staff members and volunteers at the Hotline.

Training confederates and raters. Two University of
Massachusetts undergraduate women served as independent rat-
ers. Five volunteers from the Hotline who were not subjects
in the experiment (women over 30 and men) helped train the
confederates. Training was conducted during a four week
period. A guidline was prepared to help the raters and call-
ers to understand the dimensions involved in the concept of
difficulty or ease of phone calls (see Appendix D). During
the first week of training all callers and raters met together
for two three-hour sessions during which time they received
instructions, practiced role-playing with each other and with
one of the Hotline volunteers, and discussed the calls in or-
der to give feedback to each other. The role-played calls
were tape-recorded and played back for discussion. During
the next two weeks each of the callers was individually train-
ed for three one-hour sessions which included making practice
phone calls to the Hotline volunteer trainers. The confed-
erates' part of all of the practice phone calls was taped.
The raters met together with the experimenter for four one-
hour sessions. The tapes of the practice phone calls were
played and rated for difficulty and for change. The raters
discussed the basis for their judgments with one another in
order to improve agreement, and to provide feedback for the
callers. During the fourth week all of the raters and call-
ers again met together for two three-hour sessions.

At the final two sessions, fifteen of the sixteen calls that were role-played and rated were correctly identified by both raters. At that time training was considered to be complete, and interrater reliability to be adequate.

The phone calls. The study required eighty experimental phone calls ranging from five to fifteen minutes in length, and averaging ten minutes. They were to present problem situations that are typical of the kinds of situations volunteers encounter on the lines. Tallies of the kinds of calls received at the Franklin County Hotline during its first year of operation provided a guideline for the experimental calls. Some of the categories of the calls were: boy/girl problems, family problems, school problems, career problems, drug-related problems, alcohol-related problems. Whenever possible, the phone calls were taken from situations that currently existed in the lives of the undergraduate confederates, in order to simulate reality as closely as possible for both the callers and the volunteers.

Half of the phone calls were intended to be high in difficulty and half to be low in difficulty. There are several aspects to the "difficulty" of a call. Difficulty may refer to: a) the degree of confusion in the caller's feelings about or definition of her problem; b) the degree of hostility in the caller's attitude toward the volunteer; c) the nature and degree of help the caller seems to expect from

the volunteer; d) the degree of effort the caller seems will-
ing and able to make in order to help herself. Half of the
phone calls were planned to portray a high degree of change
in outcome and half to show little chance.

All callers were to present themselves initially as be-
ing in a negative feeling state (e.g. anxiety, hostility, de-
pression). The initial feeling states varied somewhat, for
example, a confederate making a "difficult" call might appear
to be ambivalent or confused; whereas an "easy" call might
sound simply depressed. They were all to represent the same
degree or intensity of feeling, which was initially a moder-
ately intense, negative feeling state. During the course of
the conversation, callers in the High Change condition were
to change to a relatively neutral feeling state, clearly in-
dicating this change by making comments toward the end of
the phone call such as, "I feel a lot better . . . we might
as well hang up", or, "I don't feel as bad now . . . we might
as well hang up." Callers in the Low Change condition were
to show no change in feeling state during the course of the
call, indicating this with comments toward the end of the
phone call such as, "I still feel upset about this . . . we
might as well hang up", or, "I don't think that talking about
it is helping me at all . . . we might as well hang up."

Although the phone calls differed in degree of difficulty,
they were all to present situations of equal seriousness or
importance. The degree of seriousness of a phone call influ-

ences the volunteer's involvement in that call, and the amount of importance she places on achieving a successful outcome. Thus, for example, a volunteer who fails to help a person who is threatening suicide will be likely to be more upset and dissatisfied with herself than will a volunteer who fails to help a person who just had an argument with her boy-friend. In order to prevent the confounding of seriousness of the problem with difficulty of the task, all of the phone calls presented problems of a moderate degree of importance. Emergency situations, which would be likely to threaten vol-unteers and to arouse alarm if the outcome were unsuccessful were avoided. Suicide threats, bad drug trips, or any situa-tion threatening an individual's safety were not presented in an experimental phone call.

Checks on the manipulations. During the experiment pro-per, the confederates' part of all the phone calls was taped. Both raters listened to the tapes of all of the calls "blind" as to the intent of the caller, and classified them accord-ing to experimental condition: Easy/Change, Easy/No Change, Hard/Change, or Hard/No Change. Any call which was not cor-rectly identified for experimental condition by both raters was discarded and, whenever possible, replaced. They re-corded the length of time of each call, and they rated the importance of the problem, the initial intensity of the call-er's feeling state, and the difficulty of the call on a seven-

point scale were seven represented high importance, high intensity and high difficulty, respectively.

Design of the Study

The eighty different problem situations were randomly assigned to the four experimental conditions. Each of the volunteers participating in the study was scheduled to receive two calls in each of the four experimental conditions. The order of presentation of the calls was randomized independently for each volunteer. The four confederates each made twenty phone calls, five in each experimental condition and two to each volunteer. The experimental calls were spaced so that no more than two calls were made during a single four-hour shift. The scheduling of the calls was coordinated with the staff of the Hotline so that, whenever possible, an experimental call was made during those shifts for which two volunteers were scheduled. This contingency was considered important in order to minimize the possibility of the experimental calls interfering with the functioning of the Hotline as a community service.

The model for the experiment is a two-factor repeated measures design. A data matrix for this design is presented below.

OUTCOME

	CHANGE	NO CHANGE
Easy	N=20 Calls	N=20 Calls
Hard	N=20 Calls	N=20 Calls

Difficulty

RESULTS

Checks on the Manipulations and Controls

Control conditions require that all calls simulate actual Hotline calls as closely as possible, and that there be no differences between conditions in length of call, importance of the problem, or initial intensity of the caller's feeling state.

Although no measures were specified for checking the success of the calls in simulating actual Hotline calls, one indirect measure is the volunteers' ability to differentiate the experimental calls from "real calls". Of the sixty-four calls that were used in the final analysis, thirty-one were not guessed by the volunteers to be experimental calls. No "real calls" were judged to be experimental calls by the volunteers. However, at least one-third of the actual Hotline calls were made by chronic callers with whom all of the volunteers were familiar. Many of the others were calls requesting referral information, which is a type of call the

volunteers assumed would not be part of the experiment. Of the remaining calls, although none were judged to be experimental, the volunteers expressed considerable uncertainty as to their judgment. In fact, one subject declined to make a judgment for any of the calls she handled except for chronic callers, claiming that she could not differentiate between real and experimental calls. Regarding those experimental calls that were guessed, the reasons most often given by the volunteers were: that they recognized the confederate's voice from a previous call, and that it was possible to tell that the experimental calls were long distance calls, unlike their usual calls. (All experimental calls were placed from the University of Massachusetts in Amherst, while the Hotline is located in Greenfield.) There were no significant differences between experimental conditions in the number of calls guessed by the volunteers (χ^2 = 2.19, df = 3). Therefore, it is felt that the experimental calls were reasonably successful in approximating actual Hotline calls.

The phone calls ranged from 5 to 21.5 minutes in length and averaged 9.3 minutes. There were no differences in length of call as a function of outcome (F = 0.01, df = 1/9) or difficulty (F = 0.41, df = 1/9) or the interaction of the two variables (F = 4.22, df = 1/9).

The importance of the problem situations was rated by both the volunteers and the raters on a seven-point scale where seven represented high importance. Separate analyses of variance were calculated for the volunteers and for the

raters to test for differences between conditions in per-
ceived importance of the calls. The mean volunteer ratings
of importance for the four conditions were: Easy/Change =
4.90, Hard/Change = 6.25, Easy/No Change = 4.75, Hard/No
Change = 4.80. There was no main effect of either outcome
or difficulty on ratings of importance ($F = 2.03$, 2.66 re-
spectively, $df = 1/9$). There was, however, a significant in-
teraction between the two variables ($F = 5.63$, $df = 1/9$,
$p < .05$), which indicated that Hard/Change calls were consid-
ered to be more important than the other three conditions.
As indicated earlier, importance of the problem is felt to
have an influence on the volunteer's involvement with a call
and consequently to affect the weight placed on the outcome.
Success at an important call would be likely to be more sa-
tisfying than success at an unimportant call, while failure
at an important call would be likely to be more upsetting
than failure at an unimportant call. If performance at Hard/
Change calls were rated as more satisfying than Easy/Change
calls, it would not be possible to attribute this effect to
differences in attribution to internal factors, as had been
predicted, since the result could be accounted for by the
violation of this experimental criterion. However, since the
prediction that satisfaction with performance following Hard/
Change calls is greater than following Easy/Change calls was
not confirmed (see RESULTS, Satisfaction with Performance),
this violation of experimental plan can be dismissed as un-
important.

For the raters, the means for the four conditions were: Easy/Change = 5.55, Hard/Change = 6.13, Easy/No Change = 5.70, Hard/No Change = 6.03. Interrater reliability on this measure was r = .81. There was no main effect of either outcome or difficulty on ratings of importance (F = 0.00, 4.35, df = 1/9 respectively). Neither was there an interaction of the two variables.

Finally, control conditions required that all callers initially present themselves to be in a moderately intense negative feeling state. In order to check this stipulation, the raters assessed the initial intensity of the caller's feeling state on a seven-point scale, where seven represented high intensity. Interrater reliability for this measure was r = .76. The mean intensity level for the four conditions was: Easy/Change = 5.50, Hard/Change = 6.18, Easy/No Change = 5.67, Hard/No Change = 6.50. An analysis of variance was calculated and indicated that the Hard calls were perceived to be more intense than the Easy calls (F = 25.30, df = 1/9, p<.001), contrary to experimental design. One possible effect of this violation of experimental plan is discussed later. There was no difference in initial intensity as a function of the outcome of the call (F = 2.53, df = 1/9). Neither was there an interaction of the two variables (F = 0.25, df = 1/9).

In sum, the data indicate that, overall, the experimental calls adequately met the control criteria outlined above.

The experimental manipulations required that half of the phone calls be high in difficulty and half be low in difficulty, and that half of the calls portray a high degree of change in outcome and half show little change.

Nineteen calls were discarded because they were not correctly classified by the raters as to experimental condition and four other calls were discarded because the volunteer receiving the call neglected to fill out a questionnaire. A chi-square contingency table was constructed to determine the association between experimental conditions and the number of calls discarded. It was found that significantly more calls were discarded from the Hard/Change and the Easy/No Change conditions ($x^2 = 9.80$, df = 3, p<.05).

.This finding requires some elaboration. As discussed above, Frieze and Weiner have demonstrated that the outcome of a task is a cue that is utilized in addition to characteristics of the task itself in determining the appraisal of task difficulty. In the present experiment, ratings of difficulty were made after the raters had listened to the entire phone call. Thus, it is difficult to determine whether the differences in the number of calls discarded were due to the effect of outcome on the raters' evaluation of difficulty, or whether the confederates had some difficulty in performing those calls which required their making a shift in attitude from the beginning to the end of the call. Subjectively it appeared that both factors played some part. Some indirect

evidence for the former effect is available in that some of the discarded calls (specifically, those for which the experimenter "felt" the raters had been influenced by the outcome of the call) were later replayed (interspersed with as yet unrated calls) and re-rated with more explicit directions to ignore the outcome in assessing the difficulty of the call. Six of the seven calls that were re-rated were correctly identified by both raters. Evidence for the latter effect is indicated by the fact that all of the discarded calls had been made early in the experiment, when the confederates were relatively inexperienced in making experimental calls. Had more extensive training of the confederates been conducted before beginning the experiment, and had the judgment of difficulty been made by the raters before their hearing the outcome of the call, it is expected that there would have been no difference between conditions in the number of calls discarded.

The difficulty of the calls was judged both by the raters and by the volunteers. The correlation between the judgment of the two raters on this measure was $r = .82$. For this analysis the scores of the two raters were averaged. The mean ratings for the four conditions were: Hard/Change = 4.83, Hard/No Change = 6.39, Easy/Change = 2.68, Easy/No Change = 3.69. An analysis of variance was calculated and results indicated that Hard calls were considered as more difficult than Easy calls ($F = 143.36$, df = 1/9, $p < .001$), and No Change

calls as more difficult than Change calls (F = 54.58, df = 1/9, p<.001). The interaction was not significant (F = 2.02, df = 1/9). Again, since the raters listened to each call in its entirety, including the outcome, before making their assessments of difficulty, it is not possible to parcel out the influence of outcome on the raters' assessment. Nevertheless, the criterion that half of the calls represent High Difficulty situations, and half represent Low Difficulty situations was clearly met.

For the volunteer rating, a t-test for correlated samples was calculated to determine whether the volunteers' perception of the difficulty of the calls conformed to the manipulation intended. The mean difficulty ratings were 3.72 for the Hard calls, and 2.55 for the Easy calls (t = 2.69, p<.02). A t-test for correlated samples was also calculated to determine whether there were differences between the Change and No Change conditions in the volunteers' perception of the difficulty of the call. There was a tendency for the volunteers to perceive the No Change calls as having been more difficult than the Change calls, but the differences did not reach a .05 level of significance. The mean difficulty ratings were: Hard/Change = 3.10, Hard/No Change = 4.35, Easy/Change = 2.00, Easy/No Change = 3.10.

In order to assess the outcome of the calls, the volunteers rated their perception of the change in the caller's feelings on a seven-point scale, where seven represented high

positive change. The mean ratings for the four conditions were:
Easy/Change = 6.05, Hard/Change = 6.00, Easy/No Change = 4.50,
Hard/No Change = 3.60. An analysis of variance was calculated
and indicated that the Change calls were perceived as having a
more positive outcome than the No Change calls, as intended
($F = 98.73$, df = 1/9, $p < .001$). However, contrary to experiment-
al plan, the Easy calls were perceived as having a more posi-
tive outcome than the Hard calls ($F = 8.80$, df = 1/9, $p < .025$),
and the interaction between the two variables was significant
($F = 8.10$, df = 1/9, $p < .025$). These latter findings are ac-
counted for by the difference between the Easy/No Change and
the Hard/No Change conditions. It is felt that this violation
of experimental plan did not have any effect on the obtained
results and can be dismissed as unimportant.

In sum, the data indicate that the experimental calls
adequately met the criteria for experimental manipulations
outlined above.

Attributional Judgments for Outcome and Difficulty

The first two hypotheses relate to the cognitive stage of
Weiner's model. It was predicted that volunteers would at-
tribute successful outcomes to internal factors (technique,
effort, and volunteer attitude), but would attribute unsuc-
cessful outcomes to external factors (caller's attitude and
task difficulty). Given the nature of the scaling procedures
used in this study (see METHOD), the test of these predic-
tions requires that, following successful calls, (a) internal
factors be assessed as having a positive effect on the out-

come, and (b) the absolute value of the impact of internal factors be greater than the absolute value of the impact of external factors. Following unsuccessful calls, (a) external factors are judged as having a negative effect on the outcome, and (b) the absolute value of the impact of external factors is greater than the absolute value of the impact of internal factors.

Data pertaining to the direction of the perceived impact of the five causal factors is presented in Table 1 and illustrated by Figure 1. As might be expected, all factors were rated as having had a significantly more positive effect on the outcome of a call when there was success than when there was failure. The effect of difficulty was significant for only two of the factors--difficulty of the problem and caller's attitude. For the Change calls, internal factors were perceived as having a positive effect on outcome, as predicted. For the No/Change calls, external factors were perceived as having a negative impact on the Hard calls as predicted, but not on the Easy calls.

In order to assess the degree of impact, for each phone call a score was calculated which represented the difference between the absolute value of the mean attribution to external factors and the mean attribution to internal factors:

$$\left(\frac{/\text{Task Diff.}/ + /\text{Caller's Attit.}/}{2} - \frac{/\text{Vol. Attit.}/ + /\text{Effort}/ + /\text{Tech.}/}{3} \right)$$

Table 2 presents the mean difference scores for the four ex-

Table 1. Mean Attribution of Causality for Outcome to Caller's Attitude, Difficulty of Problem, Volunteer's Technique, Volunteer's Attitude and Effort as a Function of Outcome and Level of Difficulty

CONDITION	ATTRIBUTIONS				
	External		Internal		
	Caller's Attitude	Difficulty of Problem	Volunteer's Technique	Volunteer's Attitude	Effort
Outcome					
Change (N=20)	1.85[1]	.83	1.53	1.63	1.63
No Change (N=20)	-.10	-.15	.25	.53	1.00
t-test	5.24****	4.16**	3.57**	5.37***	2.28*
Level of Difficulty					
Hard (N=20)	.15	-.13	.75	.73	1.33
Easy (N=20)	1.60	.80	1.03	1.43	1.30
t-test	3.08*	2.87*	1.01	1.71	-.09

*p<.05 Two-Tailed Test
**p<.01
***p<.001

[1]Mean attribution scores could range from -3=had a very negative effect on outcome to +3=had a very positive effect on outcome

Figure 1. Attributions to Causal Factors for Individual Experimental Conditions
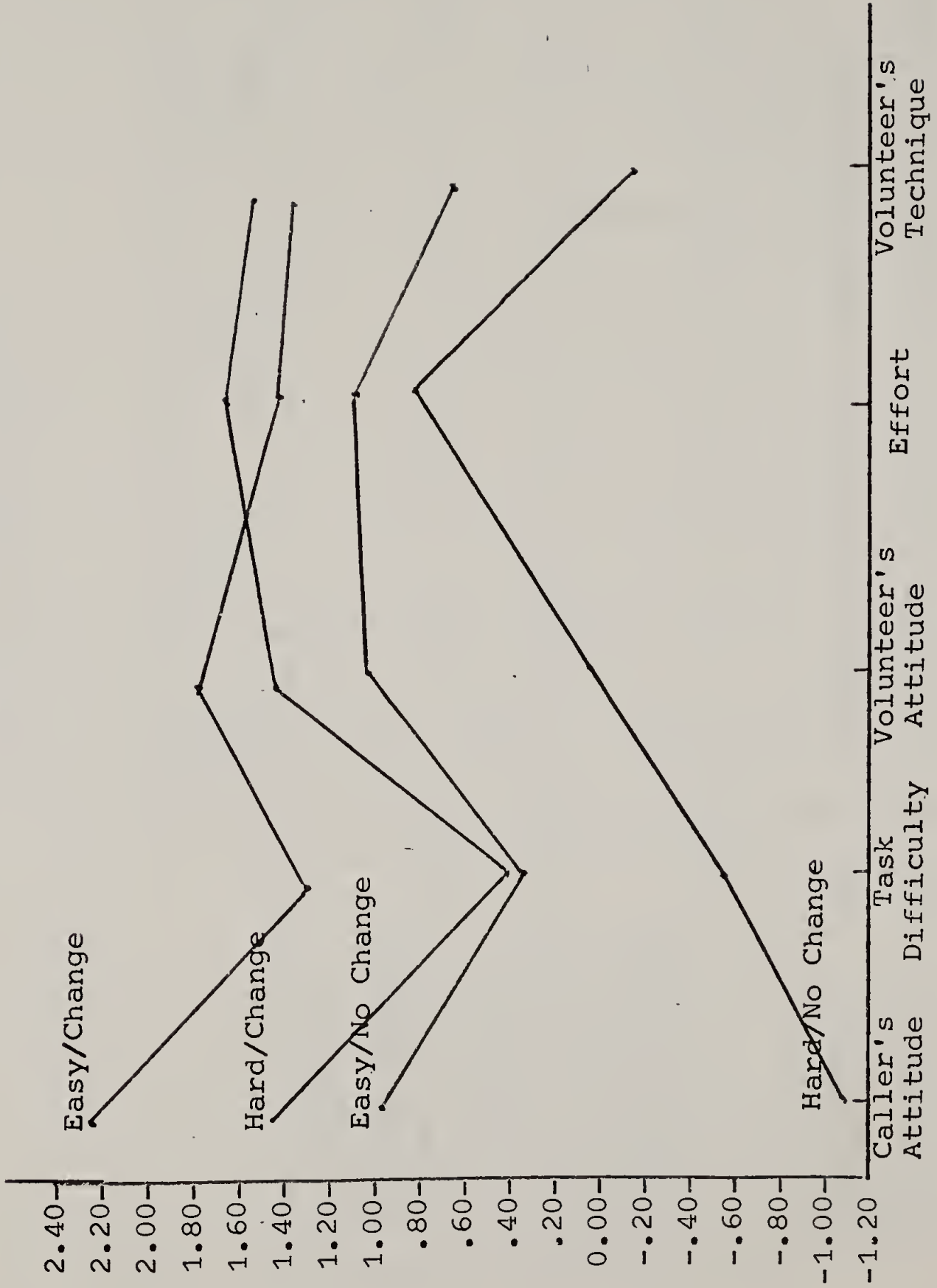
Table 2. Mean Differences in Absolute Values of Volunteer

Attributions to Internal and External Factors for

Each Experimental Condition

	Easy/ Change	Hard/ Change	Easy/ No Change	Hard/ No Change
Attribution to External Factors	1.78[1]	1.40	1.18	1.55
Attribution to Internal Factors	1.60[2]	1.72	1.03	.90
Mean Differences External-Internal	.18	-.32	.15	.65
t-value	1.24	-3.17*	1.00	2.45*

[1]Attribution to External Factors $= \frac{1}{10} \sum_{S=1}^{10}$ (/Caller's Attitude/ + /Task Difficulty/)/2
[2]Attribution to Internal Factors $= \frac{1}{10} \sum_{S=1}^{10}$ (/Volunteer Attitude/ + /Effort/ + /Technique/)/3

Scores Could Range From 0 to +3

*p< .05

perimental conditions. An analysis of variance was calculated to test the effect of outcome and difficulty on these mean difference scores. The results are presented in Table 3. Figure 2 illustrates the mean difference score for each of the four experimental conditions. The results indicate a significant main effect due to outcome and a significant interaction of outcome and difficulty. The specific effects can be more easily understood by looking at the differences in attribution to internal and external factors for each of the individual experimental conditions. Table 2 presents these results. Success in the Hard/Change condition was attributed more to internal factors than to external factors. Failure in the Hard/No Change condition was attributed more to external factors than to internal factors. Outcome in the Easy/Change and the Easy/No Change conditions was attributed almost equally to internal and external factors. The combined predictions concerning direction and degree of impact were confirmed for the Hard/Change and the Hard/No Change calls, but not for the Easy/Change and Easy/No Change calls.

Analyses of variance were also calculated to determine the effect of outcome and difficulty on the absolute value of the scores for each of the individual causal factors. The results are summarized in Table 4 and illustrated by Figure 3. Subjects rated volunteer attitude and volunteer technique as having greater impact on successful calls than unsuccessful ones. Effort was also considered to have a greater

Table 3. Summary of Analysis of Variance

of Absolute Values of Attribution to External Factors

minus Attribution to Internal Factors as a Function

of Outcome and Level of Difficulty

	Mean External-Internal Score	F-Value
Outcome		8.63*
Change (N = 20)	$- .07^1$	
No Change (N = 20)	.43	
Level of Difficulty		.07
Easy (N = 20)	.16	
Hard (N = 20)	.20	
Outcome x Difficulty		9.14*

*p<.05

[1]Mean difference scores could range from -3 to +3.

Figure 2. Absolute Values of Attributions to External Factors Minus Absolute Values of Attributions to Internal Factors
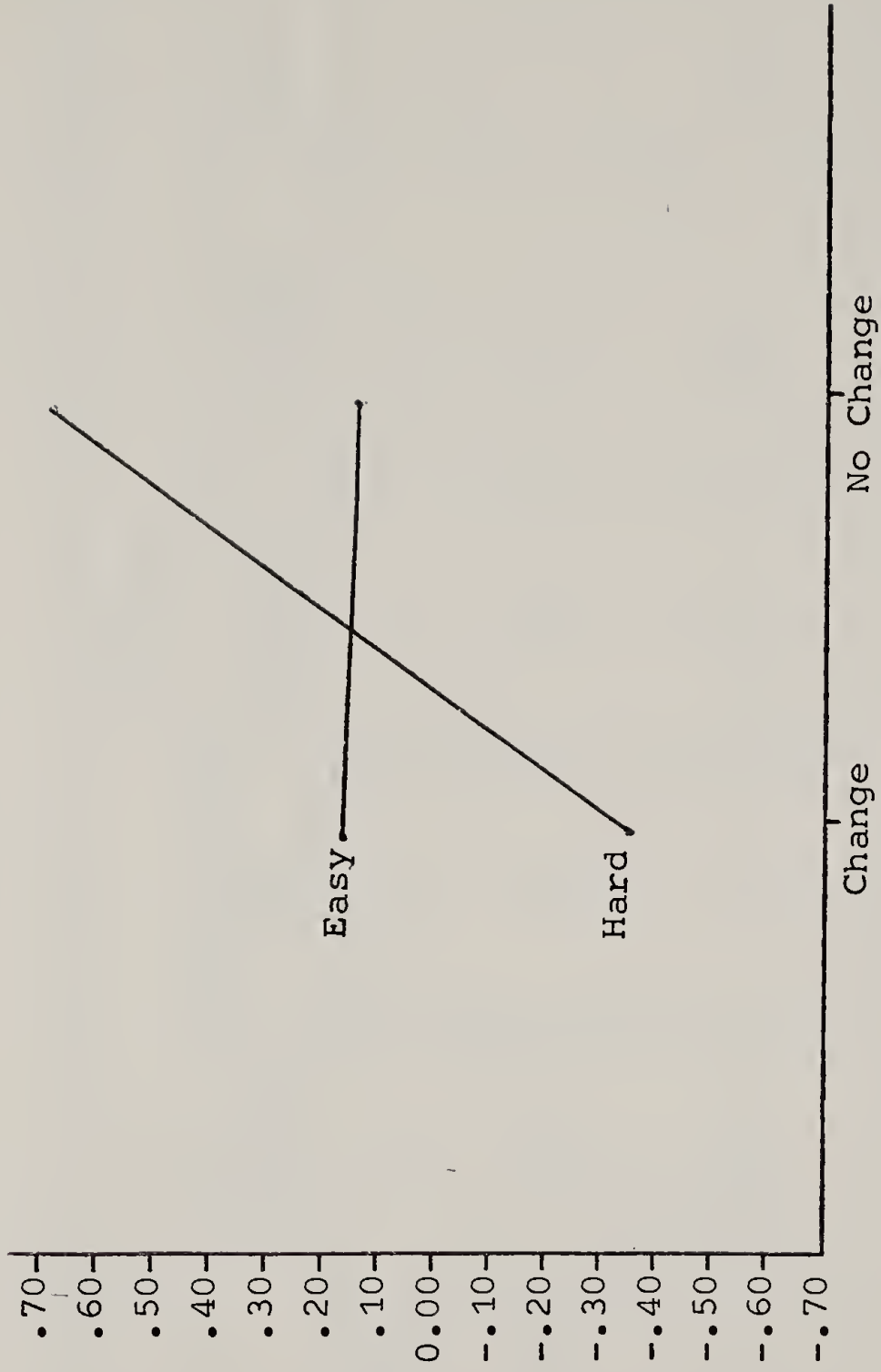
Table 4. Summary of Analyses of Variance of Absolute Values

of Attribution Scores

F-Values

Source	df	Caller's Attitude	Difficulty of Problem	Volunteer's Technique	Volunteer's Attitude	Effort
Outcome	1,9	.47	1.03	45.24***	27.09***	4.18
Level of Difficulty	1,9	.88	.32	.08	.13	.01
Outcome x Difficulty	1,9	11.77**	.02	1.76	0.00	.68

*p<.05
**p<.01
***p<.001

Figure 3. Absolute Values of Attributions to Causal Factors for Individual Experimental Conditions
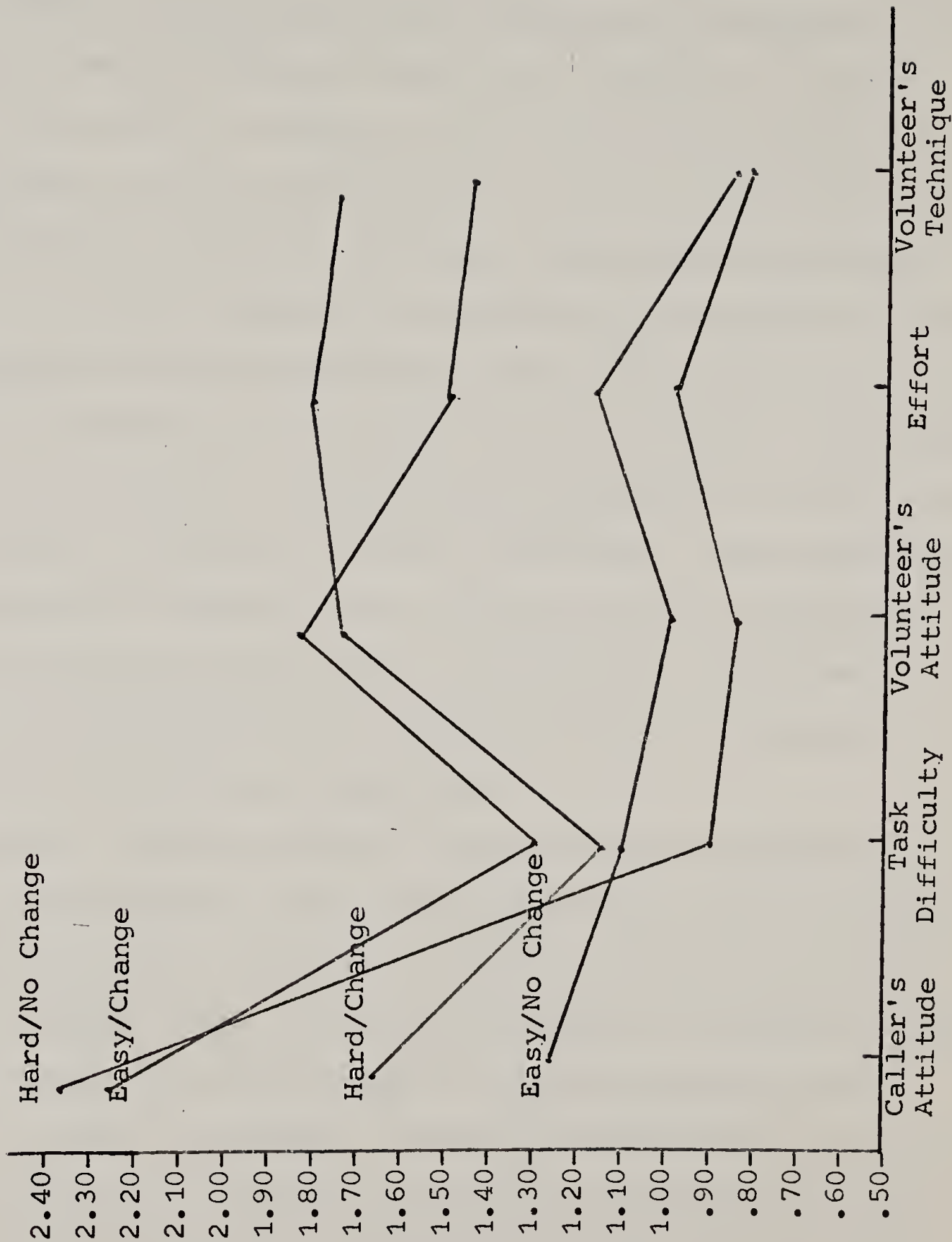
impact following successful calls, but this difference did
not quite reach a $p < .05$ level of significance. There were no
differences in ratings of the impact of caller's attitude and
task difficulty as a function of outcome. These data indi-
cate that the differences that were found in attribution to
internal versus external factors as a function of outcome
were the result of changes in the volunteers' assessment of
the impact of the internal factors, particularly volunteer's
attitude and volunteer's technique. External factors were
rated as equally important in influencing the outcome of the
successful and the unsuccessful calls. There was no main ef-
fect of difficulty of the call on any of the five categories.
There was, however, a significant interaction of outcome and
difficulty on ratings of caller's attitude. The interaction
indicated that subjects felt that the caller's attitude was
a more important determinant of the outcome in the Easy/
Change and Hard/No Change conditions than in the Easy/No
Change and Hard/Change conditions.

In sum, the data suggest that volunteers attribute suc-
cess at Hard/Change calls primarily to their good technique,
effort and positive attitude, and also to the caller's posi-
tive attitude, while they attribute failure at Hard/No Change
calls primarily to the caller's negative attitude and in
spite of their own effort. Success at Easy/Change calls is
attributed almost equally to internal and external factors,
particularly the caller's positive attitude and the volun-

teer's positive attitude. Failure at Easy/No Change calls does not seem to be logically accounted for at all by the volunteers. In spite of the fact that they see themselves as unsuccessful in these calls, they do not assess any of the variables as having a negative impact on the outcome of the calls.

Satisfaction with Performance

The second pair of hypotheses relate to the affective stage of the model outlined by Weiner. It was predicted that volunteers experience greater satisfaction with their own performance when they succeed in helping a caller than when they fail, and that volunteers experience greater satisfaction with their own performance when a successful call is considered difficult rather than easy. In order to test these predictions, an analysis of variance was applied to the volunteers' ratings of satisfaction. Tables 5 and 6 present the mean rating for each of the four conditions and the results of the analysis. The results indicate a significant main effect due to outcome. The first hypothesis was, therefore, confirmed. The effect of the difficulty of the call was not significant and, in fact, tended in the direction opposite to the one predicted. Volunteers were slightly more satisfied with their own performance when a phone call was easy than when it was difficult. There was no interaction between outcome and difficulty on ratings of satisfac-

Table 5.   Means of Satisfaction with Performance

As Rated by the Volunteers in the

Four Experimental Conditions

	Change	No Change
Hard	5.55	4.05
Easy	5.85	4.35

Table 6. Summary of Analysis of Variance of
Ratings of Satisfaction with Performance

Source	df	F-Value
Outcome	1,9	12.10**
Level of Difficulty	1,9	0.64
Outcome x Difficulty	1,9	0.00

**p<.01

tion. Post-experimental inquiry revealed that enjoyment of a call tended to influence the volunteers' feelings of satisfaction. Hard calls apparently were less enjoyable for the volunteers and resulted in lower ratings of satisfaction. The fact that the Hard calls were more intense than the Easy calls (see Checks on the Manipulations and Controls) may have contributed to their being less enjoyable. At any rate, it appears that enjoyment was confounded with self-satisfaction in the volunteers' ratings of satisfaction with their performance.

The Effects of Volunteer Confidence

The third set of hypotheses deals with the effect of prior expectation of success or failure on subsequent judgments of causality. It was predicted that confidence in one's ability as a Hotline volunteer is positively correlated with attribution of success to one's ability and failure to the caller's attitude, that confidence is positively correlated with satisfaction over one's performance following successful calls, and that confidence is negatively correlated with attribution of success to the caller's attitude and failure to lack of ability.

The subjects were rank-ordered for confidence on the basis of the combined staff ratings. Ratings of satisfaction following Change calls, attribution of success to ability and to caller's attitude, and attribution of failure to ability

and to caller's attitude were all rank-ordered. Rank corre-
lations were calculated between the ratings of volunteer con-
fidence with each of the other ratings. None of the correla-
tions were significant (see Table 7).

Confidence was then correlated with attributions to in-
ternal elements, external elements, and each of the indivi-
dual factors under the two outcome conditions (see Table 7).
Only two of the fourteen correlations were significant: the
correlation between confidence and attribution of failure to
external factors ($r = .63$, $p < .05$), which was mostly account-
ed for by the correlation between confidence and attribution
of failure to task difficulty ($r = .59$, $p < .05$). These cor-
relations indicate that the less confident the volunteer, the
more likely that failure will be attributed to external fac-
tors, particularly to the difficulty of the task. This find-
ing, while not predicted on the basis of the Feather and
Simon study, partially replicates the finding of Frieze and
Weiner that attributions to stable elements (ability and task
difficulty) are greatest when past behavior is consistent
with current outcome.

Correlations were also computed between staff ratings of
volunteer competence and attribution to internal elements and
external elements under the two outcome conditions (see Table
8). None of these correlations were significant.

Table 7. Spearman Rank-Order Correlations between Staff Ratings
of Volunteer Confidence and Volunteer Ratings of Satisfaction
and Attributions to Causal Factors

	Satisfaction	Caller's Attitude	Difficulty of Problem	Vol.'s Technique	Vol.'s Attitude	Effort	Internal Factors	External Factors
Change Calls	-.27	-.02	.14	.02	-.26	-.04	-.10	.17
No Change Calls	.17	.42	.59*	.35	.05	.30	.41	.64*

*p<.05

Table 8. Spearman Rank-Order Correlations
between Staff Ratings of Volunteer Competence
and Volunteer Ratings of Attributions
to Causal Factors

	Internal Factors	External Factors
Change Calls	-.10	.03
No Change Calls	.34	.43

Differences between Guessed and Unguessed Calls

The goals of the present experiment were twofold: to explore some issues in achievement motivation and attribution theory, and to demonstrate that the body of research literature in these areas are relevant to a community service agency. The results explored in the previous sections relate to the former goal. In order to demonstrate the latter, it is necessary to show that the results obtained do not differ from the volunteers' usual responses to the Hotline phone calls.

The fact that almost half of the experimental calls were not guessed by the volunteers to be "fakes" allows a test of the above premise. Differences between the guessed and the unguessed calls were calculated in two different ways for all of the obtained results. First, t-tests for correlated samples were calculated, using the data from only those calls for which there was a matched pair, i.e., a "guessed" call for a particular subject in a particular condition and an "unguessed" call for the same subject and the same condition. Then, since this procedure yielded a very small amount of data for analysis, additional t-tests were calculated between guessed and unguessed calls using all of the experimental calls.

Using these two procedures, 44 t-tests were conducted. Probably the most compelling evidence for the hypothesis that responses to guessed and unguessed calls were not different is that only 1/6 of the tests yielded significant results. The

data from these seven analyses indicated that:

1) Subjects were more satisfied with the way they handled calls in Change conditions when they thought they were real than when they thought they were experimental calls (p<.05).

2) Ease of problem had a more positive effect on the outcome of Change calls when the volunteers thought they were real (p<.05).

3) Volunteer's attitude had a less positive effect on the outcome of Change calls when the subjects thought they were real (p<.05).

4) Caller's attitude had a more negative effect on No Change calls when volunteers thought they were fake (p<.001).

5) Subjects attributed positive outcomes more to the ease of the problem when they thought the call was real (p<.05).

6) Subjects attributed negative outcomes more to the dif-ficulty of the problem when they thought the call was real (p<.05).

7) Subjects attributed positive outcomes more to effort when they thought the call was real (p<.05).

Most of these results suggest that when subjects thought the calls were real, the results confirmed predictions even more strongly than when subjects did not think the calls were real. Specifically, the following hypotheses seem to receive added confirmation when volunteers considered the calls real:

1) Volunteers experience more satisfaction with their

own performance when they perceive themselves as having suc-
ceeded in helping a caller rather than having failed (result
1).

2) Volunteers assess task ease as having had a more po-
sitive effect on successful calls than on unsuccessful calls
(result 2).

3) Following phone calls that are unsuccessful, external
factors will be judged as having had more of an impact on
outcome than internal factors (result 6).

4) Following phone calls that are successful, internal
factors will be judged as having had more of an impact on
outcome than external factors (result 7).

The other three results do not seem to be easily inter-
pretable.

The overall results of these analyses suggest that the
second goal of the experiment was successfully attained, i.e.,
that achievement motivation and attribution theory provide a
useful framework for understanding the satisfaction of Hot-
line volunteers with their work.

DISCUSSION

The results relating to attributions following success
and failure may be summarized as follows:

1) The hypothesis that success would be attributed to

internal factors while failure would be attributed to external factors was confirmed for the Hard/Change and Hard/No Change conditions, but not for the Easy/Change and Easy/No Change conditions; 2) internal factors (technique, attitude, and to some extent, effort) were rated as more important determinants of outcome following success than failure, while external factors (caller's attitude and task difficulty) were rated as equally important following success and failure; 3) there was an interaction between outcome and difficulty on the assessment of the importance of the caller's attitude.

These results suggest several interesting interpretations. In the first place, ample evidence is available to support the notion that ego-defensive operations bias the attribution process. In addition to (1) and (2) above, recall that volunteers did not attribute failure to lack of effort, poor technique, or poor attitude, but merely assessed effort, attitude, and technique as having less positive effects on No Change calls than on Change calls. Attributions seem to have been biased in a manner that would reflect most positively on the volunteer. These results confirm the advantages of the scaling procedures used in this study. Positive attributions following failure would not have been possible given the typical scaling procedure (see METHOD). Further evidence is thus provided for the operation of ego-defensive biases. Also related is the finding that ratings of satisfaction with one's performance following failure did not fall on the nega-

tive end of the scale, but were merely less positive than ratings of satisfaction following success.

The second finding also suggests a modification of the nature of ego-defensive biases. A defensive style may be said to be activated only in failure situations and may be defined as the tendency to ascribe failure to external sources, excluding internal factors as determinants of failure. This modification takes into account the fact that internal factors were not rated as more important determinants of outcome than external factors for the Easy/Change condition, as had been predicted.

The pattern of results for subjects' attribution to external factors seems consistent with the concept of cue utilization which was introduced earlier (see INTRODUCTION). This concept refers to the fact that individuals assemble and combine information from diverse sources to form systematic causal judgments in achievement situations. In the present experiment, the only factor that was systematically varied across conditions (aside from outcome) was the level of difficulty of the call. Level of difficulty was operationalized in terms of the caller's attitude toward the volunteer. Thus, caller's attitude might be said to have been a cue, in fact the only systematic cue, that was present in the environmental context to aid the volunteers in forming attributional judgments. The results indicate that this cue was utilized in a consistent and logical manner. With respect to the subjects' evaluation of the effect of the vari-

ous causal factors, caller's attitude and difficulty of the problem were felt to have had a significantly more negative effect on the Hard calls than on the Easy calls. None of the internal attributions varied as a function of the level of difficulty of the call. In evaluating the relative impact of the five causal elements, caller's attitude was felt to be the most important factor in both success and failure. Obviously, by virtue of the nature of the experimental manipulation this was, in fact, the case. The manipulation of difficulty of the call had the effect, then, of increasing the salience of caller's attitude as a causal element.

One additional finding pertaining to the subjects' evaluation of the impact of the caller's attitude was the significant interaction between outcome and difficulty of the call. Although this finding was not initially predicted, an interesting and reasonable post hoc explanation is provided by the literature on person perception. Jones and Davis (1965) discuss the process of inferring another person's intentions from his actions. According to their analysis, in order for an observer to attribute an outcome to an actor, he must first believe the actor was aware that his action would have the observed effects and, secondly, that the actor has the ability to bring about the effects observed. It would seem that in the present experiment, volunteers would be less likely to make these assumptions in the Easy/No Change and Hard/Change conditions than in the Hard/No Change and Easy/

Change conditions. In the latter two conditions, the caller's
attitude throughout the call is consistent with the outcome--
in the Easy calls the caller is cooperative and helpful in at-
tempting to solve her problem, while in the Difficult calls
the caller is demanding of the volunteer and unwilling to
help herself. In the former two conditions, however, the out-
come is inconsistent with the caller's attitude throughout
the call, and thus, less likely to seem causally related.

The fact that predictions were not confirmed for the Easy/
No Change condition may in part reflect an element suggested
by Frieze and Weiner--that subjects have more difficulty ac-
counting for failure than for success. Further support for
this notion is evident in the fact that attributions were
generally lower for the No Change conditions than for the
Change conditions. In the Easy/No Change condition, it may
have been difficult for subjects to attribute failure to ex-
ternal factors, while ego defensive biases prevented attribu-
tion of failure to internal factors.

The results with respect to volunteer ratings of satis-
faction confirm the hypothesis that volunteers are more satis-
fied with their own performance when they help a caller than
when they fail to help a caller, but fail to confirm the hy-
pothesis that volunteers are more satisfied when a success-
ful call is difficult rather than easy. It may be recalled
that the latter prediction was derived from the postulate
that pride in success is directly related to the degree of
perceived personal responsibility for success, and the find-

ing of Frieze and Weiner that the more difficult the task, the more internal factors are inferred as the cause of success. The pattern of attributions for the Hard/Change and the Easy/Change conditions did differ in the present study, but the results do not replicate Frieze and Weiner's findings. Note that in the Hard/Change condition, internal factors were rated as more important causes of success than were external factors, while in the Easy/Change condition internal factors and external factors were considered almost equally important in determining outcome. However, the differences between the Hard/Change and the Easy/Change conditions are accounted for primarily by the difference in attribution to external factors. Attribution to internal factors are almost the same for the two conditions. In the present study, then, the more difficult the task, the less external factors were inferred as the cause of success. One may conclude that differences in attribution to external factors do not affect ratings of satisfaction with one's performance.

Staff ratings of volunteer confidence and competence were basically shown to bear little relationship to any of the dependent measures. In retrospect, staff ratings of volunteer confidence were probably an inadequate measure of the expectation of future success or failure. Some anecdotal evidence supports this conjecture. Informal conversation with one of the staff members following his rating of the volunteers suggested that confidence might have been a confounded and inadequately defined concept. It was agreed that at least three

different styles could be identified as relating to confidence
--an open evaluation of one's performance, an overly self-criti-
cal set, and a defensive style. This staff member was asked to
rerate the ten subjects, without knowledge of their overall rat-
ings on confidence, assigning each to one of these three cate-
gories. It was found that the three volunteers who ranked high-
est in confidence were assessed by this staff member as having
an "open" style, the three volunteers in the middle ranking were
assessed variously as open, defensive, and overly critical,
while the three volunteers who ranked lowest in confidence were
seen by this staff member to be defensive (one volunteer was
not rated by this staff member, as he felt he was not suffici-
ently familiar with her work to do so).

It is possible, then, that the confidence measure might be
more accurately defined as a measure of openness-defensiveness
in evaluating one's own performance. The overall trend of the
correlations between confidence and volunteer attributions is
consistent with this notion. Following successful calls, the
less confident volunteers were more likely to attribute success
to their own attitude and to be more satisfied with their own
performance. Following unsuccessful calls, the less confident
volunteers rated all factors as having had a less positive ef-
fect on outcome, but were particularly likely to attribute fail-
ure to the caller's negative attitude and to the difficulty of
the task. This pattern more closely describes the response
style characteristic of ego-defensive biases than it does a
low confident style.

Implications

The present study attempted to show that predictions de-
rived from the achievement motivation and attribution theory
literature are applicable to situations that require exercise
of interpersonal skills. The results clearly support this pre-
mise.

The guiding viewpoint (see INTRODUCTION, Implications) is
that a broader, but at the same time more specific, conceptual-
ization of the notion of achievement motivation is needed. The
framework is broader in the sense that it is felt that the dis-
position to strive for success is an inherent quality of all
organisms (White, 1959), and thus is relevant to a very wide
range of situations. The framework is more specific, however,
in that it is felt that "the achievement-oriented tendency (the
capacity to experience pride in accomplishment minus the capa-
city to experience shame in failure)" ought not to be thought
of as a relatively stable personality disposition (as is posit-
ed by Atkinson and unquestioned by Weiner and his colleagues),
without reference to the specific environmental context within
which the achievement behavior is being evaluated. Thus, it is
proposed, for example, that an individual who demonstrates a
disposition to avoid failure in taking the quantitative section
of the GRE's, a situation requiring mastery of abstract logical
mathematical reasoning, might well show an equally strong dis-
position to strive for success when planning the family budget,
a situation requiring mastery of abstract logical mathematical
reasoning. Socialization processes can account for observed
differences in achievement behavior in specific situations.

In the present experiment, cognitive and emotional corre-
lates of achievement behavior were explored, using women as
subjects. It was predicted that, since the subjects were a
self-selected group who presumably value success at the task
they were performing, results would resemble those which have
been found for males (but not for females) in other kinds of
achievement tasks. The results essentially confirmed this
prediction.

The other goal of this experiment was to attempt to uti-
lize the concepts of achievement-motivation and attribution-
theory to gain an understanding of some of the factors operat-
ing in the Hotline situation that might influence the volun-
teers' satisfaction with their work. The pattern of obtained
results suggests some ways in which some aspects of volunteer
frustration might be understood. Recall that the hypotheses
specifying a relationship between volunteer confidence and
responses to success and failure were not supported by the
data. However the overall pattern of results for all of the
volunteers confirmed predictions that described an ego-defen-
sive style. In order to explore some possible implications
of a defensive response style, a discussion of Weiner's at-
tribution theory analysis of individual differences in
achievement motivation will be presented. The attribution
model of achievement motivation is reviewed (see INTRODUC-
TION), response styles characteristic of individuals who are
high in achievement motivation and individuals who are low
in achievement motivation are described in the light of this

model, and some implications of these styles for the tendency to approach achievement activities, persistence in the face of failure, and intensity of performance are discussed. This analysis is then applied to the responses of the Hotline volunteers and the defensive style is compared with high and low achievement motivation response styles with respect to its behavioral consequences.

As noted previously, the elements of ascription that individuals utilize in interpreting the outcome of an achievement-related event can be comprised within two basic dimensions: locus of control (internal vs. external) and degree of stability (fixed vs. variable). Internal components (ability and effort) describe qualities of the person undertaking the activity, while external components (luck, task difficulty) describe properties external to the person, or, environmental factors. Fixed elements (ability and task difficulty) have somewhat enduring characteristics, while variable components (effort and luck) are relatively changeable.

Weiner suggests differences between individuals high in achievement motivation and individuals low in achievement motivation in attribution along both of these dimensions. First, individuals high in achievement motivation are felt to be more likely to attribute success in an achievement context to themselves than are individuals low in achievement motivation. As a result, success in achievement activities is more rewarding to the high than to the low motive group, so that the former are more likely to approach achievement activities.

Thus the reward value of success, and consequently the tendency to approach achievement tasks, is felt to be related to the locus of control dimension.

Second, in situations of failure, individuals high in achievement motivation attribute their poor performance to a lack of effort, while individuals low in achievement motivation perceive failure as being due to insufficient ability. Attributions to the stable elements of ability and task difficulty imply that consistencies between past and future behaviors are expected. More specifically, if failure at an achievement task is believed to be caused by a low level of ability or high task difficulty, future failures will be anticipated. Conversely, attributions to the unstable elements of effort and luck imply that inconsistencies between past and future behaviors will probably occur. If failure at an achievement task is believed to be caused by a lack of effort or bad luck, future success may be expected. Thus, the individual should engage in repeated instrumental actions. Ascriptions of failure to a lack of effort, then, should result in greater persistence in the face of failure than will ascriptions to a deficiency of ability.

Finally, individuals who are high in achievement motivation perform with greater intensity than individuals who are low in achievement motivation. High motive subjects perceive outcome and effort to be highly associated, while this relationship is not evident for low motive subjects. Since effort is believed by the high motive group to be an important

determinant of success, they may be expected to work harder at achievement tasks than the low motive group. The low motive group ascribes failure to a lack of ability. It is possible that this results in their giving up and reducing efforts to succeed.

Now let us reexamine the pattern of responses for the volunteers as a whole in light of this discussion of free-choice behavior, persistence of behavior, and intensity of performance.

Following success, subjects perceived themselves as having had a more positive attitude, demonstrated greater skill, and expended more effort than following failure. They perceived the caller's attitude as positive and the task easy following success, while the caller's attitude was perceived as negative and the task difficult following failure. Volunteer attitude and volunteer technique were rated as having had greater impact following successful calls than unsuccessful calls. Effort was considered to have had a greater impact following successful calls than unsuccessful calls, but this difference was not significant. There was no difference in ratings of the impact of caller's attitude and task difficulty as a function of outcome.

The volunteers' interpretation of the causes of success (the attribution of success to internal factors) describes the pattern that is felt to produce high reward value for success and consequently, high approach behavior.

It is in the volunteers' response to failure, however,

that some potential problems become evident. Recall that
volunteers did not attribute failure to a lack of effort,
poor technique or poor attitude, but merely assessed effort,
technique and attitude as having had a less positive effect
on the No Change calls than on the Change calls. Following
failure, a negative attitude on the part of the caller plus
the difficulty of the problem were seen as responsible for
failure, while effort was ranked as having had the greatest
positive impact of the five causal elements. Considering,
in addition, the differences in volunteer response when they
thought the experimental calls were "real", attributions fol-
lowing success and failure are somewhat modified. Following
Change calls, ease of problem and effort were considered to
be more important determinants of outcome, while volunteer's
attitude was considered to be a less important determinant of
outcome when calls were thought to be "real". Following No
Change calls, difficulty of the problem was considered to be
a more important determinant of outcome, while caller's atti-
tude was considered to be a less important determinant of
outcome when calls were thought to be "real".

The locus of control dimension remains essentially un-
changed by these modifications, but the degree of stability
dimension following No Change calls is affected. Following
failure, outcome is attributed primarily to the external
stable element of difficulty of the problem while the inter-
nal variable element of lack of effort is least likely to be
associated with failure. Since attribution to stable ele-

ments implies expectation of consistency between past and future behaviors, future failure would be likely to be expected. Decreased persistence in the face of failure would be expected to occur.

Similar conclusions are drawn if intensity of performance is considered. The volunteers perceived effort and outcome to be highly associated following successful calls, a pattern likely to result in increased intensity of performance. Following failure, on the other hand, lack of effort is considered to be the least likely determinant of outcome, while task difficulty is seen as the most important determinant of outcome--a pattern likely to lead to reduced efforts to succeed.

This analysis suggests that, while a defensive style describes a different pattern of responses than that associated with low achievement motivation (low motive subjects blame failure on lack of ability, an internal stable factor, while defensive subjects blame failure on task difficulty, an external stable factor), neither pattern is particularly adaptive in an achievement-related context. While a defensive style may protect the volunteer from loss of self-esteem following failure, like the low achievement motivation style, it is not likely to lead to changes in behavior that will produce future success. Both styles are likely to lead to less persistence and lowered intensity of performance following failure, consequently producing fewer efforts to explore new behaviors.

It is felt that this interpretation offers some aid to understanding the high frustration and high turnover rate of volunteers at the Franklin County Hotline. One can speculate that certain kinds of calls are particularly likely to elicit a maladaptive defensive style in the volunteers. "Chronic callers", for example, tend to be the most frustrating and least rewarding of all calls for the volunteers. The volunteers tend to feel particularly ineffectual in dealing with these calls, to feel that nothing they can do will make any difference, and to blame their inability to help chronic callers on the caller's attitude and the difficulty of the problem. An attribution theory analysis would lead one to propose that volunteers be encouraged to view the outcome of calls with chronic callers as being under the control of the volunteer's own efforts. Kelly suggests that errors in attribution can occur when individuals ignore cues that are available to them in a situation. Frieze and Weiner present data on the cue utilization patterns of individual subjects which indicates that different individuals utilize different amounts of information in arriving at attributional judgments. It is suggested that if small, operationalized, realistic goals could be identified for dealing with chronic callers, and volunteers trained to recognize signs of progress toward attaining these goals, they might be able to experience more success with these calls, and to view failure as being more highly associated with a lack of effort on their own part.

In sum, it is proposed that an attribution theory analysis offers a useful framework for understanding internal satisfactions with one's work in a community service agency.

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APPENDIX A

Staff Rating of Volunteer Confidence

Compared to other Hotline volunteers, how confident do you feel _____ is about her handling of phone calls?

1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
High   Average   Low
in   in   in
Confidence   Confidence   Confidence

How well do you know this volunteer's feelings about her handling of Hotline calls?

_____ I don't know this volunteer's feelings well enough to be able to answer this question.

_____ I know this volunteer's feelings pretty well.

_____ I know this volunteer's feelings very well.

Staff Rating of Volunteer Competence

Compared to other Hotline volunteers, how well do you feel _____ generally handles phone calls?

1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
Not Very   Average   Very Well
Well

How familiar are you with this volunteer's handling of Hotline calls?

_____ I don't know this volunteer's work well enough to be able to answer this question.

_____ I know this volunteer's work pretty well.

_____ I know this volunteer's work very well.

APPENDIX B

Volunteer Questionnaire

YOUR NAME_____ LOG #_____

DATE_____ TIME IN_____ TIME OUT_____

Please answer every question. Feel free to elaborate on your responses. Be as open as you can--your responses will be kept confidential.

1. How satisfied/dissatisfied are you with the way you hand-led this call?

    1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
    Very   Very
    Dissatisfied   Satisfied

2. How important do you feel this caller's problem was?
    1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
    Very   Very
    Unimportant   Important

3. How much change was there in the caller's feelings from the beginning to the end of the call?
    1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
    Caller felt   No   Caller felt
    a lot worse   Change   a lot better

4. How much did each of the following factors influence the outcome of this call?

                    Very Negatively   No   Very Positively
                    Affected Outcome   Effect   Affected Outcome
a. Difficulty of the   -3__-2__-1__0__+1__+2__+3__
       problem
b. Your technique   -3__-2__-1__0__+1__+2__+3__
c. Caller's attitude   -3__-2__-1__0__+1__+2__+3__
d. Your attitude toward
       the caller and his
       problem   -3__-2__-1__0__+1__+2__+3__
e. Effort   -3__-2__-1__0__+1__+2__+3__
f. Other (please explain)
    _____   -3__-2__-1__0__+1__+2__+3__

5. How difficult was this call to handle?
    1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
    Very   Very
    Difficult   Easy

6. Do you feel that this was one of the experimental calls?
    Yes_____   No_____

7. How certain are you of this answer?
    1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____
Very Uncertain   Very Certain

APPENDIX C

A GUIDE TO FILLING OUT THE VOLUNTEER QUESTIONNAIRE

1. For the duration of the experiment (one to two months), please give your name (or the name you generally use for Hotline phone calls) when answering each call.

2. It is very important for you to fill out a Volunteer Questionnaire <u>after</u> <u>every</u> <u>phone</u> <u>call</u> that you answer. Please try not to forget. If you notice at some point that you have forgotten to fill out a questionnaire for a phone call you have answered, either
    a) fill one out then (if you feel that you remember the phone call well enough to answer the questions accurately), and make a note of when you are completing it, or,
    b) write down the log number of the call for which a questionnaire is missing on one of the blank sheets in the back of the notebook (if you no longer remember the call well enough to be able to complete the questionnaire).

3. Please answer every question. For some phone calls, some of the questions will not seem relevant. Please choose an answer anyway--feel free to note in the margin that the question seemed irrelevant to that call.

4. Feel free to elaborate on any of your responses. You may make comments in the margins or on the back of the sheets if you feel that it will help to explain a particular answer. You might also want to make some comments about the questionnaire itself, for example--
    questions that bothered you
    wording that made a particular question difficult to
        answer
    questions that you feel should have been included
    Use the blank sheets in the back of the notebook for this purpose.

5. To help you in filling out question (4), the following are some examples of what is meant by each category.
    a. <u>Difficulty of the problem</u>
        For example, (1) The problem may have seemed easy to you in that there were clearly some alternative solutions you could suggest that the caller might explore
                    (2) The problem may have seemed difficult to you because there are other people involved in the caller's problem who are making the situation worse

b. <u>Your</u> <u>approach</u>
    For example, you may have decided that the best ap-
    proach to take with this caller was to clarify feel-
    ings, or make a referral, or just rap, or give ad-
    vice

c. <u>Caller's</u> <u>attitude</u>
    For example, the caller may have been friendly, hos-
    tile, insightful, demanding, stubborn, shy

d. <u>Your</u> <u>attitude</u> <u>toward</u> <u>the</u> <u>caller</u> <u>and</u> <u>his</u> <u>problem</u>
    For example, your emotional response to the caller
    may have helped or hindered in establishing communi-
    cation, empathy, rapport

e. <u>Effort</u>
    For example, you might have had several other calls
    before this one and therefore not have felt very in-
    volved with this call, or you might have found this
    call particularly interesting and thus put extra ef-
    fort into helping the caller

f. <u>Other</u>
    Any other factor that you feel positively or nega-
    tively influenced the outcome of the call. Please
    explain

APPENDIX D

Guideline for Raters and Callers

What makes a phone call easy or difficult?

Difficult

Easy

Caller is belligerent toward volunteer: "What do you know?" "Isn't this a Hot-line . . . I thought you were supposed to have the answers"

Caller is friendly toward vol-unteer--laughs with the volun-teer--agrees with the volunteer.

Caller is confused about what is bothering her--contradicts herself, doesn't make things clear: "I don't know . . ." "I don't know how I feel."

Caller clearly knows what is bothering her.

Caller doesn't know what to do about her problem.

Caller knows what to do--just seems to be looking for reassur-ance.

Caller doesn't seem to be really listening to anything the volunteer is suggesting --doesn't respond to ques-tions or suggestions--re-sponses are not relevant to what the volunteer has said.

Caller seriously listens and considers the volunteer's sug-gestions. Reinforces volunteer's efforts: "You're right" "That's for sure" "I hadn't thought about that"

Caller has a difficult time talking about her problems-- volunteer has to "pull it out of her"--shy, embarrassed.

Caller talks freely and easily about what is bothering her.

Caller seems to expect the volunteer to solve every-thing for her--wants solu-tions right away--"What should I do?"

Caller places realistic, limited demands on the volunteer.

Caller is demanding of the volunteer: "Have you ever been in this situation, what would you do?"

Caller doesn't demand specific advice. Caller suggests alter-natives herself: "Maybe I should . . ."

Caller is sarcastic toward the volunteer and rejects all suggestions: "That's a stu-pid idea" "What does that have to do with it?"

Caller accepts suggestions: "I think I could try that" "That's a good idea"