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The universal strategy approach practiced by change agents is argued to be relatively inefficient and may result in boomerang effects when attempting to motivate planned social change. Based on the concept of attitude-behavior consistency/discrepancy, a model of strategy choice is developed which enables a mix of reinforcement, inducement, rationalization, and confrontation processes. Influence strategies that can be utilized by change agents in facilitating each of the above processes are identified. Results from a study of car pooling behavior are presented to illustrate how a change agent can evaluate which processes should be facilitated in a given planned social change situation.

A Model of Strategy Mix Choice for Planned Social Change

Planned Social Change

A significant hallmark of mid-century America is the greatly accelerated growth of institutions that choose to—or are mandated to—bring about what they define as socially desirable attitudes and behaviors'' (Andreasen 1981, p. 1). These social marketers include such organizations and/or groups as health maintenance organizations, Alcoholics Anonymous, the Office of Cancer Communications, and the United Way. Public sector agencies are often concerned with creating significant changes in consumption behavior and patterns in the marketplace (e.g., decrease alcohol and cigarette purchases, decrease food consumption among overweight people, increase the use of contraceptives). Fox and Kotler (1980) indicate that many of these organizations have recently discovered marketing as a potentially useful tool to help them achieve their objectives, which often deal with planned social change.

Zaltman (1974) defines social change as an alteration in the structure and functioning of a social unit or social system. Therefore, planned social change refers to active intervention by change agents (e.g., officials in public agencies) with a conscious policy objective to bring about a change in magnitude and/or direction of a particular social or consumption behavior by means of one or more strategies of change (Hornstein et al. 1971, Jones 1969, Lippitt, Watson, and Westley 1968, Niehoff 1966, Zaltman and Duncan 1977).[1] Planned social change consists of the following characteristics:

- The social behavior to be changed must be identified and well-defined.

- There should be a policy objective with respect to the magnitude and/or direction of social change.

- Some entity should be earmarked as the change agent and supplied with appropriate resources or powers.

- One or more strategies of change should be utilized.

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[1] The social change process is also important within and between formal organizations, but such an emphasis is beyond the scope of this paper. Andreasen (1981) considers this topic as he discusses varying strategies that social marketers can use in attempting to gain influence on the behavior of other organizations.

This definition of planned social change, therefore, excludes the following types of social changes:

- Changes that are evolutionary, accidental, or random phenomena (Arensberg and Niehoff 1971, Bennis 1966, Lippitt, Watson, and Westley 1968).

- Changes that arise by the process of contagion as is so typical in the diffusion of innovations (Rogers and Shoemaker 1971, Zaltman 1974, Zaltman and Stiff 1973). The contagion process is merely a behavioral phenomenon (Bass 1969, Mansfield 1961). Of course it can be harnessed and utilized as a strategy by a change agent to achieve a policy objective in a given social change arena, but by itself it does not constitute planned social change as often implied in the diffusion of innovation literature.

Planned social change is, therefore, a *managerial rather than a behavioral task* that requires making decisions as to which strategies to use, in what combination, and for which target groups in order to achieve policy objectives related to bringing about a prespecified magnitude and/or direction of change in a given social or consumption behavior (Chin and Benne 1969, Zaltman 1974). As such, it must possess elements of strategic planning and decision making. Only after these decisions are made does planned social change become an implementation task for managers. If the managerial task stage is skipped or performed poorly, the chances of widespread social change in the direction desired by the change agent will be relatively low.

Problems in the Present Social Change Approach

Two major problems now exist in the way change agents attempt to motivate planned social change. First, very often only a single strategy is utilized in an attempt to bring about a planned social change at a given point in time and sometimes over a period of time. Different appeals for different population segments are typically not designed under this single strategy approach (Zaltman and Duncan 1977). In other words, change agents have practiced a universal approach as opposed to a segmentation approach toward planned social change.

Secondly, change agents have been primarily concerned with implementing specific strategies for specific programs. Little attention has been paid to developing a more global picture to predict when and where certain strategies may be relatively appropriate. At present, there is no theory of strategy mix but only an acknowledgement that efficient selection and ap-

plication of varying strategies is highly complex. Zaltman (1974, p. 92) states, "Many factors affect the success of a particular strategy; not uncommonly factors favoring different strategies are simultaneously present and factors which contraindicate a particular strategy coexist with factors favoring its use." It seems that change agents believe in a particular strategy based on some ideological value system and utilize it universally without regard to allocating resources in an optimal manner among a mixture of strategies.

Purposes of This Study

This study presents a model of strategy mix choice for planned social change that will provide the change agent with a more global picture of the planned social change process. Based on the concept of attitude-behavior consistency/discrepancy, a model is proposed that provides insights to the change agent about different processes and objectives of planned social change. Later, (1) influence strategies that can be utilized by a change agent in facilitating a given process and attaining a given objective are identified, and (2) a consumer based methodology (based on the use of discriminant analysis) to help change agents decide which of the behavior-attitude processes they must facilitate in given social change situations is explained. The basic value of this method is to provide change agents with a starting point in strategy negotiations and selections within their organizations. While additional trade-off factors such as money, personal agendas, agency politics, other stakeholder attitudes, and time constraints must be considered and incorporated in the final choice of a specific mix of strategies, they are treated as ceteris paribus in our model.

This paper also highlights the importance of a consumer orientation (especially in regard to varying population segments with different needs, wants, attitudes, and behavior) within public agencies. A consumer orientation is often missing in public sector decision making and programs designed to change consumption patterns in the marketplace (Deshpande and Krishnan 1981, Fox and Kotler 1980).

A Model of Strategy Mix Choice

Attitudes and Behavior

A significant body of literature on the attitude-behavior relationship supports the general assumption that attitudes and behavior are, on the whole, positively related (cf Engel, Warshaw, and Kinnear 1979, McGuire 1978). People often manifest behaviors towards which they have positive attitudes (contribu-

tions to charity) and avoid those behaviors towards which they have negative attitudes (deviant behavior). As such, attitude-behavior consistency generally holds in an aggregate analysis.

However, in a case by case analysis, attitude-behavior discrepancy also certainly exists (Belk 1981, Sheth and Horowitz 1977, Sheth and Newman 1981, Sheth and Wong 1981). This construct implies that there are situations in which peoples' attitudes and behavior are at odds with each other. For example, many people possess positive attitudes toward wearing seat belts but they don't use them; conversely, some people may have negative attitudes toward going to church but still attend.[2]

Except in a very homogeneous society, it is not likely that everyone will manifest the same degree or direction of attitude-behavior consistency/discrepancy, especially toward socially relevant behaviors. For example, some couples practice birth control and have a positive attitude toward birth control (segment one), others avoid it because they have negative attitudes (segment two), still others practice birth control but more out of necessity (segment three), and finally some believe in birth control but do not practice it (segment four).[3]

Processes of Planned Social Change

The conceptual framework suggests that there are four major processes of planned social change, each one most appropriate for each of four combinations of attitude-behavior consistency/discrepancy, as summarized in Table 1. When attitudes and behavior are consistent as well as in the positive direction toward the relevant social behavior (cell one in Table 1), a *reinforcement process* seems most appropriate for sustaining the planned social change. It refers to rewarding people for engaging in a behavior they enjoy (like) and which the change agent wants to continue and sustain.

The general objective of the reinforcement process is to keep people in the positive attitude, engaged behavior cell. This can be accomplished through (1) reinforcing the behavior, (2) reinforcing the attitude, and/or (3) reinforcing both. Behavioral reinforcement involves providing economic rewards to the individual so as to strengthen the probability of future compliant behavior as suggested by operant conditioning (Nord and Peter 1980, Skinner 1953). On the other hand, psychological reinforcement centers on the attitude towards the behavior and is based on intrinsic

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[2] See Zaltman and Duncan (1977) for reasons why a conflict between attitudes and behaviors might exist.

[3] Of course this situation can be considerably more complex if a husband and wife within one family unit lack congruence or agreement in their attitudes and behavior concerning birth control.

TABLE 1
A Typology of Strategy Mix For Planned Social Change

| | Attitude | |
	Positive	Negative
Engaged Relevant Behavior	**Cell 1** Reinforcement Process 1. Behavioral Reinforcement 2. Psychological Reinforcement	**Cell 2** Rationalization Process Attitude Change
Non-engaged	**Cell 4** Inducement Process Behavioral Change	**Cell 3** Confrontation Process 1. Behavioral Confrontation 2. Psychological Confrontation

rewards (e.g., encouragement, compliments) and logic (e.g., the "whys" behind the behavior) rather than on economic rewards. A carrot (rather than a stick) approach should be the basis for the reinforcement process for this segment, since people here are already performing the desired behavior and have a positive attitude toward it.

When people possess a positive attitude toward a desirable social behavior but do not or cannot presently engage in the concomitant behavior (cell four), an *inducement process* needs to be facilitated. It refers to minimizing or removing organizational, socioeconomic, time, and place constraints that intervene between the positive attitude and the consequent behavior (Howard and Sheth 1969, Sheth 1974). Behavioral change is the primary objective, given that a positive attitude already exists in this segment and, as such, movement of people from cell four to cell one (Table 1) is desired.

The *rationalization process* is most appropriate when people are currently engaged in a desirable social behavior but have a negative attitude toward it (cell two). Often, this may be due to lack of choice or due to a temporary situation. In each case, the behavior may only be temporary and may not lead to subsequent attitude change. Thus the primary objective of this process is to generate attitude change that will be consistent with the behavior and, therefore, may be more difficult to alter when the temporary situation is removed. Movement of people to cell one by the process of attitude change is desirable.

Finally, when both attitude and behavior are consistent but in the negative direction toward a desirable social behavior (cell three), a *confrontation process*

may be necessary (Bennis et al. 1976). This is the most painful and difficult process of planned social change. The change agent must, therefore, decide whether it is worth the effort to change the social behavior in light of negative public opinion as well as the apparent high costs associated with this strategy.

Behavioral confrontation requires the change agent to utilize his/her power base to create blockades toward the existing, undesirable behavior and alter peoples' motivations toward performing the desirable social behavior. Psychological confrontation involves a direct attack on the existing attitudes that individuals have toward the planned social change. In each case, a stick approach appears to be necessary. Movement of people directly to cell one may be too radical a change in some situations. If so, the change agent can utilize a two-stage process in which he/she first moves people from cell three to either cell two or four and then eventually to cell one in Table 1.

Strategies of Planned Social Change

Thus far only the processes of planned social change and their basic objectives have been discussed. To implement these processes and attain their objectives, influence or communication strategies must be se-

lected and utilized by the change agent. The most basic implication of the model is that the change agent must use different types of influence strategies and/or change the orientation (tactics) of specific strategies across the different attitude-behavior consistency/discrepancy groups. While a particular strategy and tactic may be effective in facilitating one process or objective, it may not work well in facilitating each process or objective.

Given this viewpoint, it is vital that available influence strategies are linked to the processes of planned social change to aid the change agent in their implementation (cf Zaltman 1974). Table 2 briefly describes eight categories of influence strategies available for use by change agents. An attempt to link these strategies and the processes of planned social change is exhibited in Table 3. Here, an evaluation of each strategy is presented in terms of its apparent appropriateness in facilitating each social change process. Where a reasonably high level of confidence does not exist concerning whether a given strategy is appropriate or inappropriate in facilitating a given process, a "maybe" prediction is included in the table.

The predictions within Table 3 are based on the character of each strategy, the nature of each process, and the logic that either attitude change, behavior

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TABLE 2
Strategies of Planned Social Change

1. *Informing and Educating* (Chin and Benne 1969, Zaltman, Kotler, and Kaufman 1972). Objective information is disseminated to the population with no conclusions drawn within the communication; left to the recipient to process the objective information and make conclusions on his/her own.

2. *Persuasion and Propaganda* (Boyk 1973, Lee 1975, Rogers 1972). Conclusion drawing and dramatic statements of benefits or ill effects of performing or avoiding a certain behavior are stressed; may involve a biased presentation of facts and figures in an aggressive manner to impact and change attitude.

3. *Social Controls* (Hornstein et al. 1971, Smith 1973). Refer to group identification and norms, values, and pressures that peer groups bring to bear for both ensuring and sustaining social change; involve subtle or direct pressure and even implied punishments for nonconformity.

4. *Delivery Systems* (Spreke 1971, Zaltman 1974). The emphasis is to minimize the accessibility problems associated with the usage of many public services. This entails offering flexible time schedules, more delivery contact points, and, in general, making the public feel welcomed in making use of the public services associated with a specific planned social change.

5. *Economic Incentives* (Pohlman 1971, Rogers 1972, Zaltman 1974). Include not only cost reduction tactics (e.g., tax credits for home insulation) but also cash or other tangible incentives (e.g., cash payments for a vasectomy).

6. *Economy Disincentives* (Rogers 1973, Zaltman 1974). Involve tangible punishments for performing a certain behavior (e.g., adding extra duties, tariffs, surcharges, and taxes to the cost of a product or service).

7. *Clinical Counseling and Behavior Modification* (Hornstein et al. 1971). Involve the unlearning of socially undesirable behavior or learning of a socially desirable behavior among a hard core of individuals in a society; the psychiatric and psychoanalytic programs tailored for each deviant individual as well as small group therapy programs are examples of this strategy.

8. *Mandatory Rules and Regulations* (Jones 1969, Niehoff 1966, Zaltman, Duncan, and Holbek 1973). Legal restrictions on behavior are by definition involuntary and universal in nature; punitive measures can be utilized given noncompliance.

TABLE 3

Appropriateness of the Strategies In Facilitating the Processes of Planned Social Change

Strategies	Reinforcement Behavioral	Reinforcement Psychological	Inducement Behavioral	Rationalization Psychological	Confrontation Behavioral	Confrontation Psychological
Informing and Educating	No	<u>Yes</u>	No	Maybe	No	No
Persuasion and Propaganda	No	Maybe	No	<u>Yes</u>	No	<u>Yes</u>
Social Controls	No	Maybe	<u>Yes</u>	<u>Yes</u>	Maybe	<u>Yes</u>
Delivery Systems	Maybe	No	<u>Yes</u>	No	No	No
Economic Incentives	<u>Yes</u>	No	<u>Yes</u>	No	No	No
Economic Disincentives	No	No	<u>Yes</u>	No	<u>Yes</u>	No
Clinical Counseling and Behavior Modification	No	No	No	No	<u>Yes</u>	No
Mandatory Rules	<u>Yes</u>	No	Maybe	No	<u>Yes</u>	No

change, or both must be attained within a given process. For example, to promote psychological reinforcement, the informing and educating strategy appears most effective (cf Zaltman and Duncan 1977). Objective information on the situation and the value and benefits of the relevant social behavior will tend to be processed (not selectively screened) by consumers in this group and serve to remind them, in a nonpressurized way, why their current attitudes and behavior are justified (Engel, Warshaw, and Kinnear 1979). A detailed description of the logic behind each of the predictions in Table 3 is beyond the scope of this paper. However, three additional points must be stressed at this time:

- Several strategies appear to be appropriate in more than one cell. However, the specific character and orientation of a strategy may change across conditions. For example, use of persuasion and propaganda in the rationalization process might include information packaged in a biased way in favor of the desired behavior. Often this entails partial disclosure of facts, exaggeration of positive aspects in the given social behavior, and minimization of negative consequences. On the other hand, use of this strategy in the confrontation process appears to require a more direct, pressurized approach centering on fear appeals. Similar examples can be made for variations in social controls and mandatory rules across the processes.

- The stick approach recommended in the confrontation process is very risky. When people have negative attitudes and are not performing the behavior, pressurized measures may merely serve to alienate them. Defense mechanisms may arise, causing such an approach to fail (cf Argyris 1970). However, use of other strategies

or a more indirect approach appear even less effective here.

- The emphasis of certain strategies on either behavior or attitudes in the reinforcement and confrontation processes, from the viewpoint of the change agent, is to aid them in formulating specific social change plans for facilitating each process. Certainly, feedback effects from attitudes to behavior and from behavior to attitudes may result. For example, providing economic incentives to people as rewards in the behavioral reinforcement process directly centers on behavior. Subsequently, because more positive connotations surround the performance of the behavior, individuals' attitudes toward the behavior may become more positive.

The predictions within Table 3 must be considered tentative at this time. However, they should provide change agents with a greater understanding of the processes of planned social change and guidance in normatively evaluating the costs and benefits of the strategies identified in Table 2 and their applicability under varying attitude-behavior conditions.

Estimating Which Processes Should Be Facilitated

How to allocate resources among the alternative processes of planned social change and whether or not a single process will be sufficient or not depends, in large part, on the distribution of the general population in the four cells of the attitude behavior consistency/discrepancy matrix. The larger the percentage of people exhibiting attitude-behavior consistency, the greater the need to implement reinforcement and confrontation processes (cells one and three in Table 1). On the other hand, the larger the percentage of people

who exhibit attitude-behavior discrepancy (the lower the aggregate positive correlation between attitudes and behavior), the greater the need to implement inducement and rationalization processes (cells two and four in Table 1). The more heterogeneous the cultural and economic backgrounds of people in a society, the less likely it is that all of them will be concentrated in any one cell (cf Okediji 1972). Therefore, in highly diverse and complex societies it appears necessary to utilize a mix of processes and strategies for an optimal achievement of planned social change.

Knowledge of the population distribution is necessary but not sufficient for determining which social change processes should be implemented. As suggested previously, there will likely be differential (1) coefficients of effectiveness, depending on the percentage of a target group that a strategy moves in the desired direction, (2) constraints, and (3) costs associated with facilitating each process through use of an influence strategy or a combination of strategies. Such considerations must be taken into account by the change agent along with information about the population distribution.

Two methods of estimating the population distribution within the attitude-behavior consistency/discrepancy matrix are now described.

A Simple Estimation Method

The simple method rests on the proposition that attitude is a unidimensional phenomenon and can be reliably measured in terms of like-dislike, enjoy-hate, good-bad, favorable-unfavorable, and other semantic differential rating scales (Fishbein 1967, Howard and Sheth 1969, Triandis 1971). Through distribution analysis, the sample can be divided into positive and negative attitude groups engaged or disengaged in that social behavior. This is a simple procedure but can be very useful as a first cut to understand whether there is a lopsided distribution in favor of a particular cell in the strategy mix matrix.

A More Complex Estimation Method

A more complex approach is to measure a person's evaluative beliefs (Sheth 1974) that underlie his/her attitudes toward a social behavior. It is a two-stage process. In the first stage, the cognitive structure underlying the attitudinal judgment is assessed by qualitative research on small groups of people who are engaged *and* disengaged in the behavior or by assessment of prior research findings. In the second stage, a multiattribute profile of evaluative beliefs is generated from a large sample study to measure the composition of people's attitudes toward the specified behavior.

Given a multiattribute vector of attitudinal beliefs, it is now possible to perform a two-group discriminant analysis between those who are engaged and those who are disengaged in a given social behavior. The multiattribute attitudinal profile represents the predictor set of variables, and the dichotomous behavioral manifestation represents the criterion variable in the two-group discriminant analysis.

Since the objective in discriminant analysis is to maximize the correlation between group membership and the predictor variable profile, it is possible to measure the degree and direction of consistency or discrepancy between attitudes and behavior by the use of the classification procedures in the discriminant analysis. In other words, the proportion of people whose attitudes and behavior are consistent as well as those whose attitudes and behavior are inconsistent or discrepant in each direction can be estimated. For example, some people in the sample may have a negative attitude profile even though they are engaged in a given behavior. The discriminant analysis model will clearly classify them as people who should not be engaged in that behavior. Similarly, there may be other people whose attitude profile is positive, but they are not engaged in that behavior. The discriminant analysis model will classify them as people who should be engaged in that behavior even though they are not. In short, the correct classifications in the discriminant analysis reflect the attitude-behavior consistency and the misclassifications reflect the attitude-behavior discrepancy (Wind 1977).

Car Pooling Example

An operationalization of the simple and complex approaches just described is illustrated by a research study of van pooling or car pooling behavior (Sheth and Horowitz 1977). Despite powerful personal and societal advantages, car pooling has received very low acceptance in the U.S. It is estimated that less than 10% of commuters use car pooling as a mode of travel to work (Herman and Lam 1975, Zwanzig 1977). As such, it provides a useful scenario for estimating which processes of planned social change should be considered to promote this behavior better.

Collection of Data

A survey was conducted among residents of the Chicago metropolitan area contacted through their employers. Personnel departments of 43 firms, chosen randomly from a large list of companies employing at least 100 people, were first contacted and asked to contact roughly equal numbers of car poolers, solo drivers, and public transit users to answer a self-administered mail back questionnaire, which was hand delivered. Of 2,000 questionnaires distributed, 1,020 were returned. After eliminating those with relevant missing data, 822 questionnaires remained for anal-

ysis: 323 car poolers, 382 solo drivers, and 117 public transit users.

Because almost all car poolers in our sample owned at least one automobile while 75% of transit users did not, it was assumed that automobile ownership is a necessary condition for sharing a ride to work. For this reason, only data relating to car poolers and solo drivers were analyzed for this study.

Data and Analysis

The respondents indicated the degree to which they liked or disliked the idea of being a member of a car pool on a seven-point scale ranging from extreme like to extreme dislike. This item was used to represent their overall attitude toward car pooling. Table 4 presents the cross-tabulation of respondents with positive or negative attitudes toward car pooling and their actual commuting behavior. It represents the simple estimation method discussed earlier. As evident, the table reflects a reasonably high attitude-behavior consistency. Still, of those people with a positive attitude, 27% were solo drivers and of those with negative attitudes toward car pooling, 19% actually were car pooling, which suggests that there may be significant market niches where policy planners can utilize inducement and/or rationalization processes.

Figure 1 shows the specific evaluative beliefs utilized in operationalizing the complex method. They were developed based on past literature, in-depth interviews with a small group of car poolers, and our own thinking. It also shows the profiles of car poolers and solo drivers with respect to their attitudes toward car pooling. As can be seen from the profile, the attitudes toward car pooling between solo drivers and car poolers are similar with respect to expense, energy, traffic, and pollution problems. On the other hand, car poolers are far more positive than solo drivers toward car pooling with respect to convenience, reliability, comfort, pleasantness, and time saving. In other words, there are significant differences on personal experience attributes but virtually no differences

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FIGURE 1
Evaluation of Car Pooling Profile

——————Car poolers (N=323)

----------Solo Drivers (N=382)

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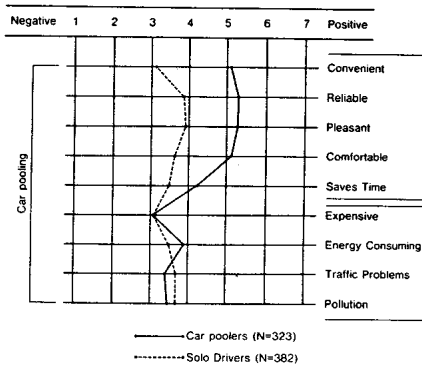
on social and economic consequences of car pooling behavior between the two groups.

As suggested by the theory and its operationalization, a two-group discriminant analysis was performed utilizing the above evaluative beliefs as the predictor variables of car pooling behavior. The discriminant analysis results are summarized in Table 5a.[4] As would be expected, those beliefs on which there were significant differences between car poolers and solo drivers (convenient, reliable, pleasant, saves time) were retained in the discriminant function, and others were discarded as not relevant since they did not contribute toward maximizing the correlation between behavior and attitudes of two groups of commuters.

The classification matrix that results from the discriminant analysis is shown in Table 5b. First of all, notice that the population distribution in Table 5b is highly similar to the distribution in Table 4 that resulted from the simple method. This provides a predictive validity check on each of the methods. However, the multiattribute profile and the discriminant function go one step beyond and enable the policy planner not only to estimate the relative sizes of each

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TABLE 4
Population Distribution on Overall Attitude Scale Toward Car Pooling

	Car Pooling Attitude		
	Positive	Negative	Behavior Totals
Car Poolers Behavior	257 (73%)	66 (19%)	323
Solo Drivers	97 (27%)	285 (81%)	382
Attitude Totals	354	351	705

[4] In view of the fact that the variance-covariance matrices for the solo drivers and car poolers were not equal ($\Sigma_1 \neq \Sigma_2$) in our sample, it was necessary to utilize the likelihood ratio criterion C (see Anderson 1958, p. 141–142) rather than the traditional discriminant function criterion to allow for the effects of unequal variance-covariances of the predictor variables between the two groups. This requires calculating separate linear combinations of each group (solo drivers and car poolers), utilizing each group's mean vector as deviation from the total sample, and dividing by its unique variance-covariance matrix estimated by the sample.

TABLE 5
a. Discriminant Analysis Between Solo Drivers and Car Poolers—Attitude Toward Car Pooling

i	Variable	F Value	d.f.	SOLO α_i	CP α_i
1	Convenient	197.6**	1;703	0.12	0.52
2	Reliable	38.9**	1;702	0.33	0.68
3	Pleasant	10.8**	1;701	0.43	0.64
4	Saves Time	4.1*	1;700	−0.11	−0.04
0	(Constant)	—	—	−13.60	−17.50
	F between groups	66.6**	4;700	—	—

b. Classification Matrix Results

	Car Pooling Attitude		Behavior Totals
	Positive	Negative	
Car Poolers Behavior	239 (70%)	84 (23%)	323
Solo Drivers	102 (30%)	280 (77%)	382
Attitude Totals	341	364	705

*: $p \leq 0.05$
**: $p \leq 0.001$

segment but what specific beliefs to use in carrying out various processes such as inducement, reinforcement, confrontation, and rationalization processes.[5]

As can be seen from Table 5b, the vast majority of people with positive attitudes toward car pooling (70%) do actually engage in it. Similarly, a vast majority of people with negative attitudes toward car pooling actually engage in solo driving (77%). This suggests that primary approaches for increasing car pooling behavior should be a combination of the reinforcement and confrontation processes. Since our data with respect to car poolers versus solo drivers are not proportional to the population ratios, it will be necessary to estimate the population proportions of car poolers statistically. Since car pooling is practiced by less than 10% of the population, the dominant approach for increasing car pooling behavior appears to be the confrontation process.

However, as stated previously, the confrontation process is both very difficult and painful to implement since it requires fundamental changes in both the values and habits of people and may be accompanied by political risks and negative public opinion. As an al-

ternative, perhaps the policy planner should lower his/her aspirations and attempt to make modest improvements in car pooling behavior by concentrating on those people with positive attitudes who do not presently car pool (30% of all those with positive attitudes), as well as on those who do car pool at present but have negative attitudes toward it (23%). The former group would require an emphasis on the inducement process involving such strategies as a change in work schedules, providing a vehicle exclusively for car pooling purposes, and facilitating the matching process of car poolers to minimize time and distance inconveniences. The latter group would require implementation of the rationalization process including the use of persuasive strategies involving propaganda leaflets, appeals to national pride, mass media campaigns to "hang in there," and special interpersonal support through pep talks and workshops.

If we presume that 75% of all commuters are solo drivers (the balance divided between car pooling and mass transit), then nearly 55% of all commuters would need more drastic measures underlying the confrontation process to motivate them to change to car pooling behavior. An additional 20% will need strategies involved with the inducement process, and the remaining 25% of all commuters will require a combination of strategies dealing with the reinforcement and rationalization processes. Looking at this from a different perspective, it suggests that with the adoption of strategies that foster the rationalization

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[5] Multicolinearity among the variables did not appear to present serious problems. While multicolinearity could bias the impact that individual variables have on the discriminant function, given that the primary objective of this analysis is prediction (i.e., to attain a classification matrix of the sample), this would not present a serious problem in this study.

and inducement processes, the policy maker should be able to increase car pooling behavior to a level where combined with mass transit, it will have market share of approximately 45% of all commuters. In other words, solo driving and other modes of commuting to work can be brought to a more or less parity level without the utilization of more painful and politically risky strategies associated with the confrontation process. Furthermore, based on increased acceptability of car pooling, it may generate sufficiently strong pressures on the current solo drivers to encourage them to switch to car pooling, resulting in a snowball effect as suggested in diffusion research.

Discussion

Both the simple approach and the technique of discriminant analysis suggest something about the magnitude of attitude-behavior consistency/discrepancy and the consequent managerial decision as to which processes of planned social change should be facilitated. They involve a microlevel analysis which enables the change agent to identify people in each cell and target a specific mix of strategies to each of the four segments.

The primary use of discriminant analysis in the paper is to develop a predictive model to classify individuals as either car poolers or solo drivers. However, the multiattribute attitude profile also provides clues about the substantive elements to be included in each of the selected strategies. Let us illustrate this with an example. Suppose we find a group of people who engage in birth control and those who do not. We measure their attitudes on a multiattribute profile consisting of cost, convenience, accessibility, social taboo, and fear of side effects. Based on the two-group discriminant analysis, we find that the most significant discriminating attributes are fear of side effects and cost. We also find that there is a group of people who have fear of side effects and cost problems even though they are engaged in birth control. Implementation of the rationalization process might consist of a campaign stressing safety as well as lowering the cost of birth control targeted to this segment of the population.

On the other hand, there is another group of people who have a positive attitude with respect to side effects and cost of birth control, but they are not engaged in birth control practices. They need to be induced to manifest their positive attitudes into actual behavior. This can be achieved by strategies such as more efficient delivery systems (birth control devices practically available everywhere) as well as strong encouragement from social or organizational structures similar to the current physical fitness programs.

Finally, to reach those who do not practice birth control and have a fear of side effects as well as high cost perception, implementation of the confrontation process may be required. Clinical counseling, establishing mandatory product safety guidelines for the suppliers of birth control devices, and generating economic disincentives toward nonpractice of birth control are strategies that could be utilized.

It is relatively easy to identify the four segments of the total population on their socioeconomic and demographic profiles. In addition, it may be useful to collect data on their daily activities and interests (lifestyles) to pinpoint the role a particular social behavior plays in their daily life.

The change agent would now have sufficient information about the target segments to plan the process and strategy mix with respect to both resource allocation and substantive content for each strategy. He/she can now decide which processes and strategies to use based on the population distribution in the attitude-behavior consistency/discrepancy matrix and the normative evaluation of each strategy, what specific attributes should be emphasized in his/her strategy based on the discriminant coefficients of the attitude profile, whom to target a specific strategy mix element based on the demographic profile of each of the segments, and how to implement or communicate to each identified and targeted segment based on the lifestyle and value profile of each of the segments in the population.

An Extended Model

There are at least two improvements that can be made to the model presented herein. The first improvement relates to extending the model to a situation where people are distributed as positive, negative, or neutral in their attitudes. There are several examples in the area of planned social change where apathy is dominant and, therefore, people really don't care or they are truly indifferent toward alternative courses of behavior. For example, a large percentage of people are not concerned about nutrition in their diet. Secondly, the social behavior in question may not be a dichotomous phenomemon but a continuous phenomenon such as heavy vs. light usage. For example, we may want to reduce the per capita consumption of cigarettes among smokers as well as encourage people to quit smoking. The challenge in developing such an extended model would be to determine which process or combination of processes would be most appropriate for each cell.

An extended attitude-behavior consistency/discrepancy model is presented in Table 6 with underlying processes of planned social change and examples of specific strategies that can be used to implement

them identified in each cell. Two important differences concerning processes of planned social change are evident in this model in comparison with the simpler model presented in Table 1. First, for the rationalization, inducement, and confrontation processes, a distinction is made between moderate and radical processes; that is, in a given cell a change agent may face moderate difficulty in successfully implementing a certain process, while in another cell stiffer resistance may be encountered. For example, for a segment of people who have negative attitudes toward the use of contraceptives and currently don't use them, a radical confrontation process may need to be implemented with rather direct influence strategies such as mandatory rules. A moderate confrontation process appears appropriate in situations where a negative attitude toward use of contraceptives exists but where people use them on an infrequent basis. Less drastic strategies such as those dealing with economic disincentives may be more appropriate here.

Secondly, attitude enhancement and behavioral enhancement processes are identified in Table 6. Their implementation involves a less drastic approach in comparison with the implementation of the radical rationalization and moderate inducement processes. Thus important distinctions in degree of directness and difficulty of implementing a process in achieving desired objectives are made within the extended model which change agents must carefully consider and evaluate in attempts to motivate planned social change.

Operationalization of the extended model is straightforward if the simple method of measuring unidimensional attitudes is utilized. It will require generating a 3 × 3 matrix based on positive, neutral, or negative unidimensional attitudes and nonusers, light users, or heavy users of a particular social phenomenon. However, when we have multiattribute beliefs, it will be necessary to perform a three-group discriminant analysis. While the analysis is more complex in this case, the output in terms of the classification matrix is the same. The interpretation of multiple discriminant functions and individual variables is more complex but certainly manageable. A given belief is likely to be associated with a given discriminant function, especially after rotation. The sign of its weight will indicate how a change in that belief will change group membership as affected by the first discriminant axis. If a given belief is significantly loaded on two discriminant axes with opposite signs, this would mean that it will have opposite or differential impacts in various segments and, therefore, proper care must be undertaken in choosing and implementing specific strategies that will maintain "walls" around each group. In other words, a rifle versus shotgun approach will be needed.

A limitation of the extended model is that it is restricted to a binary choice of engaging or not engaging in social behavior. However, often the choice is not dichotomous but multichotomous in nature. For example, the choices of transportation modes for commuting purposes consist of driving, car pooling, trains, or the bus transit system in any metropolitan area. In other words, the change agent must pinpoint what the alternative options are and estimate the degree of cross-elasticity of a given planned social change with respect to the competing alternatives. Thus, if one wants to increase car pooling behavior, one must understand whether the change will come from people who now drive or from people who now take the train or bus. This is an important policy issue that needs to be addressed in future research.

One solution is to measure people's multiattribute attitude profiles toward the planned social behavior

TABLE 6
An Extended Model of Strategy Mix Choices for Planned Social Change

		Attitude		
		Positive	Neutral	Negative
	Regular Users	Reinforcement Process (information)	Attitude Enhancement Process (education)	Radical Rationalization Process (persuasion and propaganda)
Relevant Behavior	Infrequent Users	Behavioral Enhancement Process (social controls)	Moderate Rationalization Process (social controls)	Moderate Confrontation Process (economic disincentives)
	Nonusers	Moderate Inducement Process (delivery systems)	Radical Inducement Process (economic incentives)	Radical Confrontation Process (mandatory rules, clinical counseling, and behavior modification)

but sample them from each of the competing behavior domains. For example, we can ask people to express their attitudes toward car pooling although at present they are driving, taking the train, riding the bus, car pooling, or bicycling to work. It is now possible to extend the model by utilizing multiple group discriminant analysis. The classification table would be extended to all alternative options besides car pooling. An analysis of the classification matrix will then reveal those segments of the total population that are likely to be attracted toward car pooling behavior from each of the substitute modes of commuting.

Summary

This article has attempted to offer a conceptual model of strategy mix choice for planned social change. The fundamental axiom on which the framework is developed is the attitude-behavior consistency/discrepancy with respect to a given social behavior. The model suggests that the change agent must not think in terms of a universal strategy approach but seriously consider segmenting the total population and utilize a mix of influence strategies on a selective basis from among those that facilitate reinforcement, inducement, rationalization, and confrontation processes.

It is evident that considerable work remains in investigating processes of planned social change and evaluating influence strategies that may be used in implementing these processes. This paper lays a basic foundation upon which others must build and provides change agents and researchers with insights into where future planning and research must proceed in analyzing the nature and effectiveness of planned social change.

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