

CONSEQUENCE ANALYSIS: AN ON-LINE REPLICATION

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ABSTRACT: Sanford and Fawcett (1980) developed an approach for increasing informed public opinion called *consequence analysis*, in which more thoughtful, better informed opinions appeared to result from a procedure in which respondents were asked to consider, elaborate, and evaluate the multiple consequences of a public policy decision. In this partial replication, 43 persons responded to an internet-based instrument that tested the effects of an online consequence analysis procedure. The results indicated that the procedure produced significant changes in stated opinions in the direction of opinions more consistent with the science of behavior, supporting the initial findings of Sanford and Fawcett, but also that many respondents did not complete the on-line instrument. Implications for further research, and the possible substantial importance of the consequence analysis procedure for expanding “self-reflective society” are explored.

Keywords: consequence analysis, public opinion change

The role of public opinion in the policymaking process varies depending on an issue’s prominence on the public stage. Crime is among the most visible of social problems and consequently almost everyone has an opinion about how to reduce it. Unfortunately, rational crime policy analysis and the political pressure on government officials subject to the forces of public opinion may lead to different outcomes, and may even be in inverse relationship. The greater the pressure, the less rational may be the analysis. Attesting to this pressure, Edward L. Rubin writes “although public concern about crime has always been present, people were generally content to leave the mechanics of policing, prosecution, sentencing, and punishment in the hands of bureaucratic elites. During the last two decades, these issues have moved to the center of public debate. Political campaigns are won or lost over details of crime policy, lobbyists organize to lengthen sentences and restrict parole, and letters and phone calls precipitate out of the vast, and previously empty firmament of public opinion when it becomes known that prisoners are lifting weights or watching television in their cells” (1999, p.13).

The fact that people are both concerned about the safety of their communities and have opinions about how to maintain it is good news. The bad news is that current policy mandates (i.e. increased criminalization, longer sentences, and harsher prison conditions) fueled by public opinion are often ineffective, are not grounded in—or even consistent with—the science of behavior, and commonly are very expensive in both financial and human terms (Elliott & Tolan, 1999; Sidman, 2001). Given the current importance of public opinion in this debate, it seems

reasonable that a better-educated electorate might be a partial solution to the current conundrum.

Several roles for the behavior analyst in the public policymaking process are articulated by Fawcett et al (1988). The authors write, "At issue [then] is not whether behavior analysts should become involved in public policy, but rather how we can most effectively and efficiently assist those who enact and implement policies that affect the general welfare. In the end, what behavior analysts can contribute is a more functional model for concerned citizen scientists" (p. 24). Two roles identified for behavior analysts in this context are creating and communicating policy relevant research information. Beyond these roles, Seekins and Fawcett (1986) discuss two main functions of research information, enlightenment and the instrumental, which can be seen to parallel the general and specific prompt formulation of antecedent stimuli (Geller, Winett, and Everett, 1982). As a general prompt, research information can function to put an issue, or social problem, on the public agenda without suggesting specific a policy; and as a specific prompt, it can function to provide alternative solutions to a social problem suggesting the adoption of a specific policy as an appropriate response.

Constructing informed public opinion may be a logical first step in refining policy. The available evidence suggests that when people are truly uninformed about an issue and are then asked to state opinions, their statements waver randomly across repeated measures through time (Zaller, 1992). Seemingly trivial changes in questionnaire construction (Tourangeau et al., 1989) or simply rephrasing questions (Rasinski, 1989) often have substantial effects. When people are equipped with *some* information on which to base their opinions, the amount matters. According to research based on information integration theory, specifically the "decelerating set-size" effect (Anderson & Birnbaum, 1976; Sloan & Ostrom, 1974), the effect of each additional piece of information depends on the amount of information already available. Thus, when one has relatively little information regarding an issue, the effect of a new piece of information would be large. Subsequent bits of information would have a decelerating effect on one's overall opinion. Additionally, investigations of attitude-behavior consistency demonstrate that the greater the amount of attitude change, the lower the congruence between initial attitudes and subsequent action (Davidson & Beach, 1981; Davidson & Jaccard, 1979).

Although rates of violent crime among youths in the United States steadily increased from 1973-1994 with a minor downward correction from 1994-1998 (Jenson et al., 2001), contemporary juvenile justice policy overwhelmingly stresses punishment and control of the offenders. These policies do not seem to be changing behavior in the desired direction toward less violence, and in some cases produce poorer outcomes for both the individuals involved and society at large (Elliott & Tolan, 1999; Mattaini, 2001). However, public opinion clearly matters in this area. From 1976-1994, the overwhelming majority (79-86%) of Americans polled answered the question "in general, do you think the courts deal too harshly or not harshly enough with criminals?" with 'not harshly enough,' alternative responses being 'too harshly,' 'about right,' and 'don't know' (Warr, 1995, p.

307). A three-decade review of public opinion poll trends on crime and punishment (Warr, 1995) generated the following conclusion: "Despite the common temptation to view crime and public reactions to crime in apocalyptic terms, the data show that stability in public opinion is as common as change" (p. 302), a finding consistent with Zaller (1992).

Politically negotiated opinions, informed and uninformed, expert and otherwise, are important factors in the recursive social policy process of analysis, formation and implementation. These opinions are commonly grounded in socially-constructed rules (statements of behavior-consequence relations) that are often untested, may or may not be accurate, and may rely on partial information or propaganda that intentionally masks the consequences to the benefit of only a few. Nevertheless, public opinion, informed or not, figures significantly in the interlocking contingencies involved in making and implementing social policy in critical areas. Consequence analysis may be one approach for increasing the extent to which such opinion is consistent with achieving better collective outcomes.

CONSEQUENCE ANALYSIS

The Haudenosaunee, among other indigenous American groups, made and make decisions based on consequences out to the seventh generation (*Akwesasne Notes*, 1978). Contemporary policy-making is often based neither on such a long-term perspective, nor on careful analysis of the multiple consequences associated with most public policy decisions. Consequence analysis is one possible approach for improving this situation. In an effort to foster knowledgeable opinion about an environmental project, Sanford and Fawcett (1980) were the first to design formal consequence analysis procedures. Sanford and Fawcett describe their rationale for this intervention design as follows: "A practical and unbiased method for informing residents of possible consequences of a proposed project must address two prominent considerations. First, community residents need relevant information about the possible consequences of a project ... Second, residents need to analyze and compare evidence regarding the favorability or unfavorability of each possible consequence. Such a consequence analysis procedure, incorporating information within a framework for analyzing the possible consequences of a project, might foster knowledgeable opinion" (p. 58).

In the Sanford and Fawcett study, three preliminary public votes were taken to determine how residents of the East Lawrence community felt about a proposed roadway project that had potentially damaging environmental effects. These votes found residents' opinions wavering: the first two were overwhelmingly in favor of the project while the third and final was 2-1 against. A multiple-baseline across residents design was used in which baseline entailed the collection of repeated favorability ratings using a community impact survey. Following the intervention, results showed 9 of the 10 randomly selected residents changed their favorability ratings all in the same direction towards less favorability. Follow-up data show that the effects were maintained across all 10 residents.

The present report is a systematic replication of Sanford and Fawcett (1980), addressing the basic question: Can an on-line consequence analysis procedure produce better-informed opinions related to an important social issue? More specifically: What is the effect of a on-line consequence analysis procedure on participants' favorability ratings regarding relying primarily on severe penalties to reduce youth violence? Can the consequence analysis procedure be used to foster knowledgeable opinion regarding policy for violence prevention?

METHOD

Participants in this exploratory study were visitors to the Behaviorists for Social Responsibility web page who clicked on the icon 'participate in research.' (See Table 1 for demographic information). This produced a non-probability, time sample of 43 persons who completed the instrument. Of the 43 participants, the majority were white women between the ages of 17 and 45 who made under \$50,000 annually.

An uncontrolled, single group experimental (pre-post) design was used. Initial ratings of the utility of relying primarily on severe penalties (e.g. expulsion from

Gender:	
Female	31
Male	10
Unknown	2
Age:	
18-25	11
26-35	6
36-45	15
46-55	6
56-65	4
Over 65	1
Race:	
Black	3
Latina/o	4
White	29
Missing	7
Income:	
Under \$25,000	14
\$25,000-\$50,000	16
Over \$50,000	10
Missing	3

Table 1. Demographics of Sample.

school, trial in adult courts, longer periods of incarceration) to reduce youth violence were recorded using a 7- point, Likert-type scale (7 = very positive; 4 = neutral; 1 = very negative). (Respondents were also asked to provide a narrative justification; those data are not reported here.) Following completion of this global opinion item, respondents moved to a subsequent screen on which they were presented with a set of 20 questions regarding multiple possible effects, or consequences, of relying on more severe penalties. (Once respondents moved to this screen, they could not go back to the previous screen and change their initial ratings.) Respondents were asked to state and rate each the possible consequences in each area as either “favorable” or “unfavorable,” and as either “large or small.” (See Table 2 for sample items).

As in Sanford and Fawcett, consequences were grouped according to effect categories noted in the literature or by protagonists on different sides of the issue (e.g., educational effects, effects on inter-group relations, economic effects, and effects on recidivism). Following completion of these questions, respondents were again asked to provide a global rating and narrative justification identical to the original opinion items, and finally were asked to provide demographic information.

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1. What effect would relying primarily on more severe penalties to reduce youth violence have on the level of fear in the community?

Would this effect be:

- Favorable
- Unfavorable

Would this effect be:

- Large
- Small

2. What effect would relying primarily on more severe penalties to reduce youth violence have on the justice system, including the police and the courts?

Would this effect be:

- Favorable
- Unfavorable

Would this effect be:

- Large
 - Small
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Table 2. Sample items.

RESULTS

The primary result to be examined was whether meaningful differences existed between mean pretest favorability ratings and mean posttest favorability ratings. (High favorability scores indicate high support for the use of severe aversives.) The mean pre-test favorability rating ($M = 3.09$, $SD = 1.70$) was significantly higher than the mean post-test favorability rating ($M = 2.67$, $SD = 1.82$), $t(41) = 2.67$, $p = .011$. See the bubble graph in Figure 1. The size of each bubble is proportionate to the number of respondents falling at each set of coordinates. Bubbles falling below the diagonal indicate respondents whose scores moved lower on the posttest (14 respondents), those on the diagonal were unchanged (26 respondents), and those above the diagonal increased their scores (3 respondents). Of the 26 whose scores were unchanged, 6 people could not adjust their rating downward, given the fact that their initial rating was already at the lowest possible value.

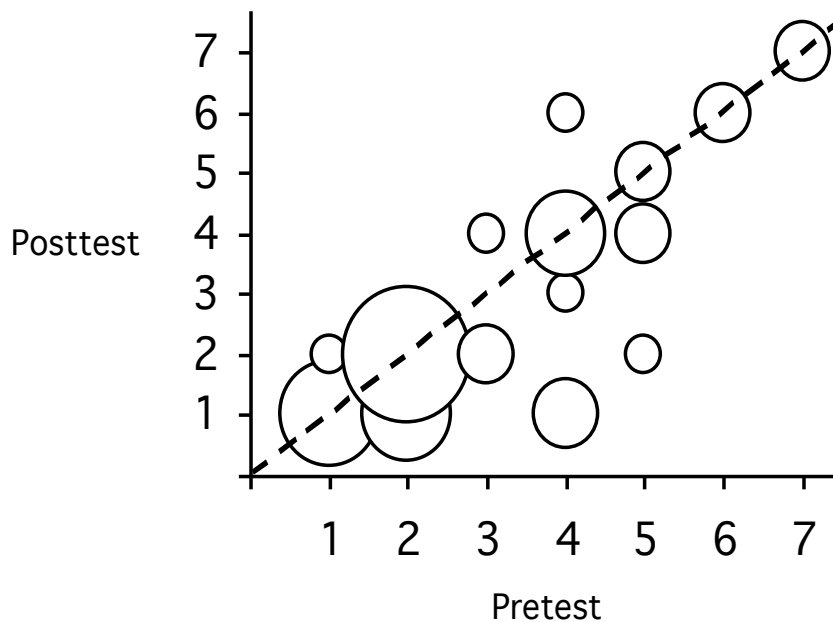


Figure 1. Bubble graph showing relation between initial rating of the utility of relying on more severe penalties (pretest), and posttest rating of the same question following completion of the consequence analysis procedure. If responses were unchanged, all bubbles would fall on the diagonal. Size of bubble is proportional to number of respondents falling at that point on the graph.

DISCUSSION

Even considering its many limitations, this small exploratory study provides additional support for the possible utility of the use of consequence analysis technology to shift public opinion in ways that are consistent with improved collective consequences. The results are encouraging, especially considering the presumed behavioral predisposition of a majority of respondents. Particularly important may be that consequence analysis does not rely on manipulation of partial information, as many opinion change strategies and propaganda do, but rather on allowing people to track multiple consequences for themselves. The effect size was somewhat small, but socially significant given the simplicity of the intervention. (A brief, internet-based procedure that might produce more informed opinion among one-third of respondents could certainly be useful. Compare this with the “polls” often conducted on internet news sites at present, which ask only for global opinions, and provide no opportunity for respondents to examine the multiple factors involved in most public policy issues.)

Given that we can be reasonably certain of the continued negative effects of relying primarily on more severe penalties to produce socially desirable, long-term changes in behavior, further development of such a brief, low-cost and efficient intervention is warranted. “As the guardians of our legal system tell us when we unwittingly step over the line, ‘ignorance of the law is no excuse,’ the same may be said of behavioral laws. When our decisions determine whether others are to live or die or whether their lives are to be full or empty, peaceful or violent, ignorance of the effects of our decisions upon others is inexcusable” (Sidman, 2001, p. 151). We are already “enlightened” about youth violence to the extent that the issue draws a great deal of attention. What we need is to generate informed public consideration of the real, and multiple, consequences of current policies. The same is true in many other areas of social importance.

Future studies in this area could be strengthened in several ways. First, it is important to note that 89% of those who began the study reported here did not complete the instrument, despite providing active consent after being informed that participation was expected to require 20-25 minutes (although the average time to complete was in the 5-10 minute range). Some may have failed to read the description of the time required, but the nature of the internet probably was also a factor; many may have begun out of curiosity, but may have found the response costs too great and the schedule of reinforcement too thin to maintain their behavior. If this analysis is correct, the two basic options are to decrease response cost, or increase reinforcers. We intend in our next iteration, relying of the first strategy, to reduce the number of questions to 10, and simplify the questionnaire in other ways to try to improve the completion rate. (Given the introductory discussion of decelerating effect-size, if shortening the questionnaire reduces the amount of information respondents gain, the effects may be less predictable, but this is an empirical question.) While it would complicate confidentiality, the opportunity for a chance to win a prize might also increase response rate, and might be worth testing.

A third suggestion is to use a randomized posttest-only design. Each respondent could be randomly assigned to either a control screen or an experimental screen. The control procedure would consist only of a favorability rating with narrative justification, and a request for demographics. The experimental group would complete the consequence analysis procedure, then the favorability rating and narrative justification, and demographics. While this procedure would involve the loss of the precision provided by a pretest, this could be justified if it dramatically increased response rate. Additionally, it may also be possible to conduct single case studies obtaining repeated measurements through time, although confidentiality issues would need to be addressed.

Sanford and Fawcett (1980) also measured collateral behaviors expected to covary with verbal statements regarding favorability, i.e., justification statements and votes for or against the environmental project. A final suggestion for future studies in the area of violence prevention is to collect data on other behavior that might be expected to covary with post-favorability ratings. As mentioned above, research in the area of attitude-behavior consistency (Davidson & Beach, 1981; Davidson & Jaccard, 1979) showed that the greater the amount of attitude change, the lower the congruence between initial attitudes and subsequent action. Given this information, it is reasonable to expect that people who adjust their opinions on violence prevention policy will be more likely to vote, sign petitions, etc. consistent with their new opinions of increasingly severe penalties for youth violence. Therefore, use of a consequence analysis procedure might be useful for building a grassroots political movement aimed at changing social policy in many areas of social importance. A rich array of other extensions also appear possible if consequence analysis technology is adequately developed.

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