Post-Compliance Touch: An Incentive for Task Performance

JANE C. NANNBERG CHRISTINE H. HANSEN Department of Psychology Oakland University

ABSTRACT. That a brief touch increases compliance to a request is well documented, but the effect of touch after compliance has already been obtained has not been investigated. The current experiment tested the effects of post-compliance touch on subjects' willingness to respond to items on a lengthy and difficult survey. A total of 104 women and 94 men, approached at random in an American university student union, agreed to participate in a survey of social attitudes. Subjects rated their amount of agreement or disagreement with 150 statements about social issues such as discrimination, abortion, euthanasia, politics, and religion. The effects of touch were assessed in two ways: by the number of survey items completed and the nature of these responses. Results indicated that both male and female subjects who were touched completed significantly more items than nontouched subjects, but there was no difference in the nature of their responses.

TOUCH MAY HAVE THE POWER to influence behaviors, even when people are not aware of whether they have been touched or not (Crusco & Wetzel, 1984; Patterson, Powell, & Lenihan, 1986). Researchers have investigated its effects on human behaviors in fields as diverse as psychology, sales, and medicine (Aguilera, 1967; Field, 1986; Hasselmeyer, 1964; Hornik, 1987; Hornik & Ellis, 1988; Kleinke, 1977; Montagu, 1986; Sokoloff, Yaffe, Weintraub, & Blase, 1969). The majority of these studies, though limited to American and Western European samples, many using college students as subjects, provide clues concerning the effects of touch. Depending on who touches us, how we are touched, and where, a touch can provide social information about power, aggression, and dominance (Knapp, 1978; Major, 1981), intimacy (Hutchinson & Davidson, 1990; Jourard & Friedman, 1970; Jourard & Rubin, 1968), and friendliness (Mehrabian, 1972). A

Address correspondence to Christine H. Hansen, Department of Psychology, Oakland University, Rochester, MI 48309-4401.

friendly touch conveys warmth and increases liking (Alagna, Whitcher, & Fisher, 1979; Fisher, Rytting, & Heslin, 1976). In medical settings, a friendly touch can even be therapeutic (Field, 1986; Holland, 1971; Whitcher & Fisher, 1979).

Touch also can be persuasive (Smith, Grier, & Willis, 1982; Willis & Hamm, 1980) A brief touch has been shown to increase compliance in many different settings. A study by Willis and Hamm (1980) found that a brief touch by an experimenter increased compliance with the request to sign a petition; and Smith et al. (1982) demonstrated that being touched increased people's willingness to taste free pizza samples. Hornik and Ellis (1988) were able to obtain increased compliance in mall interviews when the request was accompanied by a combination of direct gaze and touch. Touch seems to increase altruism and generosity as well as compliance. Kleinke (1977) found that touch had a significant effect on subjects' willingness to return a dime left in a telephone booth, as well as on an experimenter's ability to panhandle a dime from strangers. In studies of restaurant patrons, those touched by a server left larger tips than those who were not touched (Crusco & Wetzel, 1984; Stephen & Zweigenhaft, 1986). In other studies, touch influenced the number of individuals who would volunteer to help score papers (Patterson, Powell, & Lenihan, 1986) and who would pick up dropped folders (Goldman & Fordyce, 1983).

Previous research has focused on the effects of touch on tacit requests for helpfulness or generosity or on compliance with explicit requests for favors; most studies have found that a brief touch increases an individual's willingness to accede. Researchers have found with remarkable consistency that a brief touch prior to or accompanying a request has seemed to function as an incentive, increasing the tendency of individuals to aid another person or comply with a request from a person who touched them. But, would the same incentive effect occur if the touch came later—after compliance has already been obtained? The effect of a post-compliance touch on behavior has not been studied; a touch after an individual has agreed to perform a task might actually decrease subsequent performance, particularly if the touch is perceived by the individual as a "bribe" to increase performance. Previous research on the overjustification effect (Crano, Gorenflo, & Schackelford, 1988; Crano & Sivacek, 1984; Deci, 1975) has demonstrated that bribes or promise of a reward can sometimes reduce an individual's intrinsic motivation to perform a task or engage in a behavior (even an enjoyable behavior), presumably because overjustification can lead the individual to wonder whether the task must be somewhat onerous if an extrinsic reward is being offered. Alternatively, it is possible that once an individual agrees to a request, being touched simply provides a further incentive toward performing the task (cf. Linder, Cooper, & Jones, 1967; Sherman, 1970).

To investigate the effects of a post-compliance touch, we devised a study, which included a lengthy opinion questionnaire, to measure the effects of touch on continued performance on the task. We also analyzed the nature of subjects' actual responses to the survey items. In an earlier study in which touch was di-

rectly associated with inducing compliance, Hornik and Ellis (1988) found that touch did not change either the number or the kind of responses to a survey. Post-compliance touch, however, might produce cognitive or mood effects that can be detected by differences in the way touched and nontouched subjects answer the survey questions (cf. Whitcher & Fisher, 1979). For instance, if touch produces its effects by increasing feelings of intimacy or warmth toward the experimenter (Alagna et al., 1979), more self-disclosing responses might be generated.

Method

Subjects

A total of 198 subjects were systematically selected as they walked through the student union of a university in the midwestern United States. During three different time periods over the course of 3 days, an experimenter approached every second person who was walking alone, with a request to participate in a survey on social attitudes. The experimenter was a casually dressed female student in her late 30s, typical of the university's nontraditional and female-majority population. When an individual agreed to fill out the survey, no additional individuals were approached until this subject had been seated and had begun to fill out the survey. Then the experimenter again approached each second person who walked by. Subjects who agreed to participate were alternately assigned to the touch or notouch condition. Approximately 40% of those approached agreed to fill out the survey. The only constraint to random assignment was based on gender. As soon as 104 women and 80 men had agreed to the task, only men were approached to obtain the last 14 subjects. Surveys from 8 subjects were not returned. Surveys from 9 subjects were excluded because they had volunteered before being asked.

Materials

A bogus survey of social attitudes was used to measure compliance. The subjects were asked to respond to 150 statements on a scale ranging from (1) strongly agree to (5) strongly disagree. Most statements were selected from scales contained in Measures of Personality & Social Attitudes (Robinson, Shaver, & Wrightsman, 1991) and Measures of Social Psychological Attitudes (Robinson & Shaver, 1973). To bring the number of questions to 150, we composed some of the questions. The statements chosen were deliberately provocative and laden with emotion, dealing with controversial or personal issues such as self-esteem, abortion, homosexuality, religion, women's rights, euthanasia, capital punishment, and racial discrimination. Most items were negatively worded. The length (eight pages) and personal nature of the statements constituted a psychologically uncomfortable and burdensome task. Instructions printed at the beginning of the survey informed subjects that they need not finish the entire questionnaire and

were free to stop at any point and return the questionnaire to the experimenter. Scores were assigned to each subject based on the number of statements they actually answered.

Procedure

A female experimenter, using a method similar to the manipulation used by Hornik and Ellis (1988), approached each subject, maintaining eye contact, and smiled. She said, "Hi, I'm taking a survey of social attitudes. Would you have a few minutes to participate?" Subjects who agreed were thanked; then the experimenter either touched or did not touch the subject on the upper arm for approximately 2 s while handing them the survey and giving brief instructions. All subjects were told simply to find a place to sit down and to read the instructions on the cover before beginning.

Design

In a 2×2 factorial design, subjects were divided into four groups on the basis of gender and touch or no-touch manipulation. Of the female subjects with usable data, 46 were touched and 47 not touched; of the male subjects, 45 were touched and 43 not touched.

Results

A brief post-compliance touch significantly increased the quantity of responses. A 2×2 between-subjects analysis of variance (ANOVA) produced a significant main effect for the touch manipulation, F(1, 117) = 6.76, p < .01, Ms = 96.55 and 76.81. No effect was obtained for subject gender or the interaction of gender and touch (both Fs were approximately equal to 1).

To test the hypothesis that touch would influence the nature of the responses, we submitted the first 53 items (three complete questionnaire pages) to a 2×2 ANOVA. The number of subjects who completed Items 1 through 53 remained relatively balanced regarding touch condition (69 touched and 59 nontouched) and gender (64 women and 64 men). Gender differences were obtained on two items (one self-esteem and one hostility item), but touch produced no effects in the amount of agreement or disagreement subjects expressed on any opinion item, nor did it interact with gender.

Discussion

The results indicated that post-compliance touch, though lasting only about 2 s, had a strong effect on subjects' willingness to expend effort on the task. A brief touch by the researcher to the upper arm of the subject had a significant effect on

the number of items the subject was actually willing to complete (touched subjects completed approximately 25% more items than nontouched subjects did). There were no gender differences; touch worked equally well to increase response quantity for both men and women.

There are a number of possible explanations for why touch served as an incentive to performance. First, being touched by the experimenter may have augmented her likeability (Aguilera, 1967), increasing people's motivation to complete survey items. Alternatively, being touched might have produced a greater number of responses to survey items because it augmented the perceived power of the experimenter (Henley, 1977; Patterson et al., 1986). Touch effects might have been produced because of positive affective changes in the individual who was touched. Perhaps being touched simply put people in a good mood, making them more likely to persist at the survey task in order to accommodate the experimenter (Isen, 1970). Whether touch exerts its effects through mood changes, changes in evaluation of the person doing the touching, or both is not known. In fact, even though touch effects are well documented in the literature, we still know surprisingly little about why a brief touch from a stranger can have such a dramatic effect on either compliance or motivation.

Touch did not seem to influence individuals' actual answers to the opinion items. Previous research (Aguilera, 1967; Paulsell & Goldman, 1984) has suggested that people may become more self-disclosing when touched. The 53 items we assessed were obtained from various standard scales of (a) morality and religiosity, (b) self-esteem, and (c) racial discrimination. If touch increased people's willingness to be self-disclosing, we expected that touch would produce differences in the nature of the opinions expressed, but this difference was not obtained.

Limitations to the generalizability of the current findings of touch effects on effort also should be noted. Major (1981) pointed out that touch can "reflect cultural stereotypes" (p. 32). In the context of the American midwestern university setting, the female experimenter's touch was likely to be interpreted as an indication of female sex role-stereotypic warmth and friendliness, and, thus, it had a positive effect on increasing the amount of effort both male and female subjects were willing to expend. In this experimental situation, touch effects would be expected to be stronger and more uniform across gender when a woman, rather than a man, is doing the touching (Hornik & Ellis, 1988). In other settings or for other samples, cultural determinants of the meaning of being touched by a stranger might be somewhat different; if so, the effects would be expected to differ as well. Finally, the nature and type of task (opinion survey) may have limited generalizability; however, the results actually may have underestimated the true strength of touch effects. The survey was quite lengthy, but it had a definite ending point, and a substantial number of subjects completed it (40% of touched subjects and 19% of nontouched subjects). The serious nature of the questionnaire (i.e., the relevance of the issues surveyed) may have produced the feeling that it was a worthwhile and important task. Perhaps a number of subjects (particularly those in the touch condition) would have been willing to expend even more effort if the survey had been longer.

REFERENCES

- Aguilera, D. C. (1967). Relationships between physical contact and verbal interaction. *Journal of Psychiatric Nursing*, 5, 5–21.
- Alagna, F. J., Whitcher, S. J., & Fisher, J. D. (1979). Evaluative reaction to interpersonal touch in a counseling interview. *Journal of Counseling Psychology*, 26, 465–472.
- Crano, W. D., Gorenflo, D., & Schackelford, S. L. (1988). Overjustification, assumed consensus, and attitude change: Further investigation of the incentive-aroused ambivalence. *Journal of Personality and Social Psychology*, 55, 12–22.
- Crano, W. D., & Sivacek, J. (1984). The influence of incentive-aroused ambivalence of overjustification effects in attitude change. *Journal of Experimental Social Psychology*, 20, 137–158.
- Crusco, A. H., & Wetzel, C. G. (1984). The Midas touch: The effects of interpersonal touch on restaurant tipping. *Personality and Social Psychology Bulletin*, 10, 512–517.
- Deci, E. L. (1975). Intrinsic motivation. New York: Plenum.
- Field, T. M. (1986). Interventions for premature infants. Pediatrics, 109, 183-191.
- Fisher, J. D., Rytting, M., & Heslin, R. (1976). Affective and evaluative effects of an interpersonal touch. *Sociometry*, 39, 416–421.
- Goldman, M., & Fordyce, J. (1983). Prosocial behavior as affected by eye contact, touch, and voice expression. *The Journal of Social Psychology*, 21, 155–179.
- Hasselmeyer, E. G. (1964). The premature neonate's response to handling. *Journal of the American Nurses Association*, 2, 14–15.
- Henley, N. M. (1977). Body politics: Power, sex, and nonverbal communication. Englewood Cliffs, NJ: Prentice-Hall.
- Holland, J. (1971). Acute leukemia: Psychological aspects of treatment. In B. Elkerbout,
 P. Thomas, & A. Zwaveling (Eds.), Cancer chemotherapy (pp. 297–300). Baltimore,
 MD: Williams and Wilkins.
- Hornik, J. (1987). The effect of touch and gaze upon compliance and interest of interviewees. *The Journal of Social Psychology*, 127, 681–683.
- Hornik, J., & Ellis, S. (1988). Strategies to secure compliance for a mall intercept interview. Public Opinion Quarterly, 52, 539–551.
- Hutchinson, K. L., & Davidson, C. A. (1990). Body accessibility re-visited. *Journal of Social Behavior and Personality*, 5, 341–352.
- Isen, A. M. (1970). Success, failure, attention, and reactions to others. *Journal of Personality and Social Psychology*, 15, 294–301.
- Jourard, S. M., & Friedman, R. (1970). Experimenter–subject distance and self-disclosure. *Journal of Personality and Social Psychology, 15,* 278–282.
- Jourard, S. M., & Rubin, J. E. (1968). Self-disclosure and touching: A study of two modes of interpersonal encounter and their interrelation. *Journal of Humanistic Psychology*, 8, 39–48.
- Kleinke, C. L. (1977). Compliance to requests made by gazing and touching experimenters in field settings. *Journal of Experimental Social Psychology*, 13, 218–223.
- Knapp, M. L. (1978). Nonverbal communication in human interaction (2nd ed.). New York: Holt, Rinehart & Winston.
- Linder, D. E., Cooper, J., & Jones, E. E. (1967). Decision freedom as a determinant of the role of incentive magnitude in attitude change. *Journal of Personality and Social Psychology*, 6, 245–254.

- Major, B. (1981). Gender patterns in touching behavior. In C. Mayo & N. M. Henley (Eds.), Gender and nonverbal behavior (pp. 15–38). New York: Springer-Verlag.
- Mehrabian, A. (1972). Nonverbal communication. Chicago: Aldine-Atherton.
- Montagu, M. F. A. (1986). *Touching: The human significance of the skin*. New York: Columbia University Press.
- Patterson, M. L., Powell, J. L., & Lenihan, M. G. (1986). Touch, compliance, and interpersonal affect. *Journal of Nonverbal Behavior*, 10, 41–50.
- Paulsell, S., & Goldman, M. (1984). The effects of touching different body areas on prosocial behavior. *The Journal of Social Psychology*, 122, 269–273.
- Robinson, J. P., & Shaver, P. R. (1973). Measures of social psychological attitudes. Ann Arbor, MI: Institute for Social Research.
- Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of personality and social psychological attitudes*. San Diego, CA: Academic Press.
- Sherman, S. J. (1970). Effects of choice and incentive on attitude change in a discrepant behavior situation. *Journal of Personality and Social Psychology*, 15, 245–252.
- Smith, D. E., Grier, J. A., & Willis, F. M. (1982). Interpersonal touch and compliance with a marketing request. *Basic and Applied Social Psychology*, 3, 35–38.
- Sokoloff, N., Yaffe, S., Weintraub, D., & Blase, B. (1969). Effects of handling on the subsequent development of premature infants. *Developmental Psychology*, 1, 765–768.
- Stephen, R., & Zweigenhaft, R. L. (1986). The effect on tipping of a waitress touching male and female customers. *The Journal of Social Psychology*, 126, 141-142.
- Whitcher, S. J., & Fisher, J. D. (1979). Multidimensional reaction to therapeutic touch in a hospital setting. *Journal of Personality and Social Psychology*, 37, 87–96.
- Willis, F. N., & Hamm, H. K. (1980). The use of interpersonal touch on securing compliance. *Journal of Nonverbal Behavior*, 5, 49–55.

Received September 27, 1993