

The initial (conformity) explanation of multiple source effects is consistent with the view that the mere number of other people advocating a position serves as a simple peripheral cue as to the validity of the advocacy. The second (information processing) interpretation, however, is more consistent with the view that the attitude changes induced by multiple sources follow the central route to persuasion (Harkins & Petty, 1983). The ELM, of course, suggests that both of these processes may operate in different situations. When the elaboration likelihood is very low (such as when personal relevance is low or distraction is high), people will be unmotivated to evaluate the issue-relevant information presented and may use the number of people who support the issue as a simple cue as to the worth of the proposal. When the elaboration likelihood is moderate, people may use the number of sources advocating a position as an indication of whether the message is worth considering. Finally, when the elaboration likelihood is very high, message recipients will undertake a deliberate assessment of the message arguments and the number of endorsers will have little further value as a motivator of thought or as a simple acceptance cue. No experiment to date, however, has examined the impact of the number of sources across the full elaboration likelihood continuum.¹³

Factors associated with the message source, of course, are not the only variables that can both serve as cues and affect message processing. Message variables can likewise serve in both roles. We have already discussed how the number of arguments could serve as a simple cue when personal relevance was low, but affect information processing when personal relevance was high (Petty & Cacioppo, 1984a). Similarly, recipient and context variables may serve in multiple roles. For example, we have shown that the physical posture of a message recipient can affect the extent of elaboration under moderate involvement conditions. In one study (Petty, Wells, Heesacker, Brock, & Cacioppo, 1983), people who were reclining comfortably during message exposure showed greater attitudinal differentiation of strong from weak message arguments than people who were standing (see Box 6, Fig. 8). If subjects were presented with a message they were unmotivated or unable to elaborate, however, then posture (or other factors related to comfort during message exposure) might serve as simple positive or negative affective cues (e.g., Griffit & Veitch, 1971).

Importantly, even though the ELM holds open the possibility that variables can affect agreement either by having an impact on information processing or by serving as simple cues, the ELM specifies, in a general manner at least, the conditions under which each process is likely to operate. Thus, a whole list of source (e.g., credibility, attractiveness, number of sources), message (e.g.,

¹³Our analysis of multiple sources assumes that all sources are advocating the same position. When conflicting positions are advocated by different numbers of people (as in minority influence), the situation becomes more complex (see Maass & Clark, 1984).

number of arguments, use of rhetorical devices, discrepancy), audience (e.g., recipient posture, presence of hecklers, false physiological feedback), and other variables may affect attitudes by modifying information processing under certain conditions (e.g., ambiguous personal relevance), but affect attitudes by serving as simple cues in other contexts (e.g., low prior knowledge).

X. Summary and Conclusions

At the most general level, we have outlined two basic routes to persuasion. One route is based on the thoughtful (though sometimes biased) consideration of arguments central to the issue, whereas the other is based on affective associations or simple inferences tied to peripheral cues in the persuasion context. When variables in the persuasion situation render the elaboration likelihood high, the first kind of persuasion occurs (central route). When variables in the persuasion situation render the elaboration likelihood low, the second kind of persuasion occurs (peripheral route). Importantly, there are different consequences of the two routes to persuasion. Attitude changes via the central route appear to be more persistent, resistant, and predictive of behavior than changes induced via the peripheral route.

In the body of this article we have discussed a wide variety of variables that proved instrumental in affecting the elaboration likelihood, and thus the route to persuasion. In fact, one of the basic postulates of the Elaboration Likelihood Model, that variables may affect persuasion by increasing or decreasing scrutiny of message arguments, was highly useful in accounting for the effects of a seemingly diverse list of variables (see Figs. 3 and 8). The effects of these variables had been explained with many different theoretical accounts in the accumulated persuasion literature. The ELM was successful in tying the effects of these variables to one underlying process. We have also seen that many different variables could serve as peripheral cues, affecting persuasion without issue-relevant thinking. Finally, we saw that some variables were capable of serving in multiple roles, enhancing or reducing thinking in some contexts, and serving as simple acceptance or rejection cues in others.

We began this article by noting that reviewers of the attitude change literature have been disappointed with the many conflicting effects observed, even for ostensibly simple variables. For example, manipulations of source expertise have sometimes increased persuasion, sometimes had no effect, and have sometimes decreased persuasion. Similarly, studies testing different theories have sometimes found the theory to be useful in predicting attitude change, and at other times have found the theory to be unpredictable. For example, self-perception processes appear to operate under some conditions, but not others.

The Elaboration Likelihood Model attempts to place these many conflicting results and theories under one conceptual umbrella by specifying the major processes underlying persuasion and indicating how many of the traditionally studied variables and theories relate to these basic processes. Thus, we have seen that a seemingly simple variable like source credibility actually is capable of affecting persuasion in rather complex ways. The ELM, however, elucidates the conditions under which these different effects are likely to operate. Similarly, we have seen that a theoretical process such as self-perception, which emphasizes a simple inference based on behavioral cues, is likely to operate when the elaboration likelihood is relatively low but not when the elaboration likelihood is very high.

We believe that perhaps the greatest strength of the Elaboration Likelihood Model is that it specifies the major ways in which variables can have an impact on persuasion, and it points to the major consequences of these different mediational processes. In one sense, the ELM is rather simple. It indicates that variables can affect persuasion in a limited number of ways: A variable can serve as a persuasive argument, serve as a peripheral cue, or affect argument scrutiny in either a relatively objective or a relatively biased manner. In confining the mediational processes of persuasion to just these possibilities, the ELM provides a simplifying and organizing framework that may be applied to many of the traditionally studied source, message, recipient, and context variables. The postulates of the ELM do *not* ultimately indicate *why* certain arguments are strong or weak, why certain variables serve as cues, or why certain variables affect information processing. Instead, the ELM limits the mediational processes of persuasion to a finite set, and specifies, in a general way at least, the conditions under which each mediational process is likely to occur and the consequences of these processes. In doing this, the ELM may prove useful in providing a guiding set of postulates from which to interpret previous work, and in suggesting new hypotheses to be explored in future research.

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REFERENCES

- Abelson, R. (1972). Are attitudes necessary. In B. T. King & E. McGinnies (Eds.), *Attitudes, conflict, and social change*. New York: Academic Press.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888-918.

- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *Handbook of social psychology* (Vol. 2). Worcester, MA: Clark University Press.
- Allyn, J., & Festinger, L. (1961). The effectiveness of unanticipated persuasive communications. *Journal of Abnormal and Social Psychology*, *62*, 35-40.
- Anderson, N. (1981). Integration theory applied to cognitive responses and attitudes. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Andreoli, V., & Worchel, S. (1978). Effects of media, communicator, and message position on attitude change. *Public Opinion Quarterly*, *42*, 59-70.
- Apsler, R., & Sears, D. O. (1968). Warning, personal involvement, and attitude change. *Journal of Personality and Social Psychology*, *9*, 162-166.
- Asch, S. (1948). The doctrine of suggestion, prestige, and imitation in social psychology. *Psychological Review*, *55*, 250-276.
- Asch, S. (1951). Effects of group pressure upon the modification and distortion of judgment. In H. Guetzkow (Ed.), *Groups, leadership, and men*. Pittsburgh: Carnegie.
- Baron, R. S., Baron, P., & Miller, N. (1973). The relation between distraction and persuasion. *Psychological Bulletin*, *80*, 310-323.
- Batra, R., & Ray, M. (1984). Advertising situations: The implications of differential involvement and accompanying affective responses. In R. J. Harris (Ed.), *Information processing research in advertising*. Hillsdale, NJ: Erlbaum.
- Batra, R., & Ray, M. (1985). How advertising works at contact. In L. Alwitt & A. Mitchell (Eds.), *Psychological processes and advertising effects: Theory, research and application*. Hillsdale, NJ: Erlbaum.
- Belch, G. E. (1982). The effects of television commercial repetition on cognitive responses and message acceptance. *Journal of Consumer Research*, *9*, 56-65.
- Bem, D. J. (1967). Self-perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review*, *74*, 183-200.
- Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6). New York: Academic Press.
- Bettman, J. R., & Park, C. W. (1980). Effects of prior knowledge and experience and phase of the choice process on consumer decision processes: A protocol analysis. *Journal of Consumer Research*, *7*, 234-248.
- Bobrow, D. G., & Norman, D. A. (1975). Some principles of memory schemata. In D. G. Bobrow & A. Collins (Eds.), *Representation and understanding: Studies in cognitive science*. New York: Academic Press.
- Borgida, E., & Howard-Pitney, B. (1983). Personal involvement and the robustness of perceptual salience effects. *Journal of Personality and Social Psychology*, *45*, 560-570.
- Bower, G. H. (1981). Mood and memory. *American Psychologist*, *11*, 11-13.
- Brehm, J. W. (1966). *A theory of psychological reactance*. New York: Academic Press.
- Brehm, J. W. (1972). *Responses to loss of freedom: A theory of psychological reactance*. Morristown, NJ: General Learning Press.
- Brickner, M. A., Harkins, S. G., & Ostrom, T. M. (1985). The effects of personal involvement: Thought provoking implications for social loafing. *Journal of Personality and Social Psychology*, in press.
- Britton, B. K., & Tesser, A. (1982). Effects of prior knowledge on use of cognitive capacity in three complex cognitive tasks. *Journal of Verbal Learning and Verbal Behavior*, *21*, 421-436.
- Brock, T. C. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. *Journal of Experimental Social Psychology*, *3*, 269-309.

- Burgoon, M., Cohen, M., Miller, M., & Montgomery, C. (1978). An empirical test of a model of resistance to persuasion. *Human Communications Research*, *5*, 27-39.
- Burnkrant, R. E., & Howard, D. J. (1984). Effects of the use of introductory rhetorical questions versus statements on information processing. *Journal of Personality and Social Psychology*, *47*, 1218-1230.
- Burnkrant, R. E., & Sawyer, A. (1983). Effects of involvement on information processing intensity. In R. J. Harris (Ed.), *Information processing research in advertising*. Hillsdale, NJ: Erlbaum.
- Burnstein, E., & Sentis, K. (1981). Attitude polarization in groups. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion* (pp. 197-216). Hillsdale, NJ: Erlbaum.
- Burnstein, E., & Vinokur, A., (1977). Persuasive argumentation and social comparison as determinants of attitude polarization. *Journal of Experimental Social Psychology*, *13*, 315-332.
- Burnstein, E., Vinokur, A., & Trope, Y. (1973). Interpersonal comparison versus persuasive argumentation: A more direct test of alternative explanations for group induced shifts in individual choice. *Journal of Experimental Social Psychology*, *9* 236-245.
- Cacioppo, J. T., Harkins, S. G., & Petty, R. E. (1981). The nature of attitudes and cognitive responses and their relationships to behavior. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Cacioppo, J. T., & Petty, R. E. (1979a). Attitudes and cognitive response: An electrophysiological approach. *Journal of Personality and Social Psychology*, *37*, 2181-2199.
- Cacioppo, J. T., & Petty, R. E. (1979b). Effects of message repetition and position on cognitive responses, recall, and persuasion. *Journal of Personality and Social Psychology*, *37*, 97-109.
- Cacioppo, J. T., & Petty, R. E. (1980a). Persuasiveness of communications is affected by exposure frequency and message quality: A theoretical and empirical analysis of persisting attitude change. In J. H. Leigh & C. R. Martin (Eds.), *Current issues and research in advertising*. Ann Arbor: University of Michigan Graduate School of Business Administration.
- Cacioppo, J. T., & Petty, R. E. (1980b). Sex differences in influenceability: Toward specifying the underlying processes. *Personality and Social Psychology Bulletin*, *6*, 651-656.
- Cacioppo, J. T., & Petty, R. E. (1981a). Electromyograms as measures of extent and affectivity of information processing. *American Psychologist*, *36*, 441-456.
- Cacioppo, J. T., & Petty, R. E. (1981b). Electromyographic specificity during covert information processing. *Psychophysiology*, *18*, 518-523.
- Cacioppo, J. T., & Petty, R. E. (1981c). Social psychological procedures for cognitive response assessment: The thought listing technique. In T. Merluzzi, C. Glass, & M. Genest (Eds.), *Cognitive assessment*. New York: Guilford.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *42*, 116-131.
- Cacioppo, J. T., & Petty, R. E. (1984a). The Elaboration Likelihood Model. *Advances in Consumer Research*, *11*, 673-675.
- Cacioppo, J. T., & Petty, R. E. (1984b). The need for cognition: Relationship to attitudinal processes. In R. McGlynn, J. Maddux, C. Stoltenberg, & J. Harvey (Eds.), *Social perception in clinical and counseling psychology*. Lubbock: Texas Tech University Press.
- Cacioppo, J. T., & Petty, R. E. (1985). Central and peripheral routes to persuasion: The role of message repetition. In A. Mitchell & L. Alwitt (Eds.), *Psychological processes and advertising effects*. Hillsdale, NJ: Erlbaum.
- Cacioppo, J. T., & Petty, R. E. (1986). Stalking rudimentary processes of social influence: A psychophysiological approach. In M. P. Zanna, J. M. Olson, & C. P. Herman (Eds.), *Social influence: The Ontario symposium* (Vol. 5). Hillsdale, NJ: Erlbaum, in press.
- Cacioppo, J. T., Petty, R. E., & Kao, C. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment*, *48*, 306-307.

- Cacioppo, J. T., Petty, R. E., Kao, C., & Rodriguez, R. (1985). *Central and peripheral routes to persuasion: An individual difference perspective*. Unpublished manuscript, University of Iowa, Iowa City.
- Cacioppo, J. T., Petty, R. E., & Morris, K. (1983). Effects of need for cognition on message evaluation, recall, and persuasion. *Journal of Personality and Social Psychology*, *45*, 805–818.
- Cacioppo, J. T., Petty, R. E., & Sidera, J. (1982). The effects of a salient self-schema on the evaluation of proattitudinal editorials: Top-down versus bottom-up message processing. *Journal of Experimental Social Psychology*, *18*, 324–338.
- Cacioppo, J. T., Petty, R. E., & Stoltenberg, C. (1985). Processes of social influence: The elaboration likelihood model of persuasion. In P. Kendall (Ed.), *Advances in cognitive behavioral research and therapy* (Vol. 4). New York: Academic Press.
- Calder, B. J., Insko, C., & Yandell, B. (1974). The relation of cognitive and memorial processes to persuasion in a simulated jury trial. *Journal of Applied Social Psychology*, *4*, 62–93.
- Calder, B. J., & Sternthal, B. (1980). Television commercial wearout: An information processing view. *Journal of Marketing Research*, *17*, 173–186.
- Cantor, G. N. (1968). Children's "like-dislike" ratings of familiarized and nonfamiliarized visual stimuli. *Journal of Experimental Child Psychology*, *6*, 651–657.
- Cantor, N., & Mischel, W. (1979). Prototypes in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 12). New York: Academic Press.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, *39*, 752–756.
- Chaiken, S. (1985). Physical appearance and social influence. In C. P. Herman, M. P. Zanna, & E. T. Higgins (Eds.), *Physical appearance, stigma and social behavior: The Ontario symposium* (Vol. 4). Hillsdale, NJ: Erlbaum, in press.
- Chaiken, S., & Baldwin, M. W. (1981). Affective-cognitive consistency and the effect of salient behavioral information on the self-perception of attitudes. *Journal of Personality and Social Psychology*, *41*, 1–12.
- Chaiken, S., & Eagly, A. H. (1976). Communication modality as a determinant of message persuasiveness and message comprehensibility. *Journal of Personality and Social Psychology*, *34*, 605–614.
- Chaiken, S., & Eagly, A. H. (1983). Communication modality as a determinant of persuasion: The role of communicator salience. *Journal of Personality and Social Psychology*, *45*, 241–256.
- Cialdini, R. B. (1984). Principles of automatic influence. In J. Jacoby & C. S. Craig (Eds.), *Personal selling: Theory, research, and practice*. Lexington, MA: Heath.
- Cialdini, R. B., Levy, A., Herman, P., & Evenbeck, S. (1973). Attitudinal politics: The strategy of moderation. *Journal of Personality and Social Psychology*, *25*, 100–108.
- Cialdini, R. B., Levy, A., Herman, P., Kozlowski, L., & Petty, R. E. (1976). Elastic shifts of opinion: Determinants of direction and durability. *Journal of Personality and Social Psychology*, *34*, 663–672.
- Cialdini, R. B., & Petty, R. E. (1981). Anticipatory opinion effects. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion* (pp. 217–235). Hillsdale, NJ: Erlbaum.
- Cialdini, R. B., Petty, R. E., & Cacioppo, J. T. (1981). Attitude and attitude change. *Annual Review of Psychology*, *32*, 357–404.
- Clark, M. S., & Isen, A. M. (1982). Toward understanding the relationship between feeling states and social behavior. In A. Hastorf & A. Isen (Eds.), *Cognitive social psychology*. New York: Elsevier-North Holland.
- Cohen, A. (1957). Need for cognition and order of communication as determinants of opinion change. In C. Hovland et al. (Eds.), *The order of presentation in persuasion*. New Haven, CT: Yale University Press.

- Cohen, A., Stotland, E., & Wolfe, D. (1955). An experimental investigation of need for cognition. *Journal of Abnormal and Social Psychology*, *51*, 291-294.
- Cook, T. D., & Flay, B. (1978). The temporal persistence of experimentally induced attitude change: An evaluative review. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11). New York: Academic Press.
- Cooper, H. M. (1979). Statistically combining independent studies: meta-analysis of sex differences in conformity research. *Journal of Personality and Social Psychology*, *37*, 131-146.
- Cooper, J., & Croyle, R. T. (1984). Attitudes and attitude change. *Annual Review of Psychology*, *35*, 395-426.
- Cooper, J., & Jones, R. A. (1970). Self-esteem and consistency as determinants of anticipatory opinion change. *Journal of Personality and Social Psychology*, *14*, 312-320.
- Craik, F. I. M. (1979). Human Memory. *Annual Review of Psychology*, *30*, 63-102.
- Crocker, J., Fiske, S. T., & Taylor, S. E. (1984). Schematic bases of belief change. In R. Eiser (Ed.), *Attitudinal judgment*. New York: Springer-Verlag.
- Deaux, K. (1984). From individual differences to social categories: Analysis of a decade's research on gender. *American Psychologist*, *39*, 105-116.
- Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13). New York: Academic Press.
- Eagly, A. H. (1967). Involvement as a determinant of response to favorable and unfavorable information. *Journal of Personality and Social Psychology Monograph*, *7*(3 Pt. 2).
- Eagly, A. H. (1974). Comprehensibility of persuasive arguments as a determinant of opinion change. *Journal of Personality and Social Psychology*, *29*, 758-773.
- Eagly, A. H. (1978). Sex differences in influenceability. *Psychological Bulletin*, *85*, 86-116.
- Eagly, A. H., & Carli, L. (1983). Sex of researchers and sex-typed communications as determinants of sex differences in influenceability. *Psychological Bulletin*, *90*, 1-20.
- Eagly, A. H., & Chaiken, S. (1984). Cognitive theories of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 17). New York: Academic Press.
- Eagly, A. H., & Himmelfarb, S. (1974). Current trends in attitude theory and research. In S. Himmelfarb & A. Eagly (Eds.), *Readings in attitude change*. New York: Wiley.
- Eagly, A. H., & Himmelfarb, S. (1978). Attitudes and opinions. *Annual Review of Psychology*, *29*, 517-554.
- Eagly, A. H., & Manis, M. (1966). Evaluation of message and communication as a function of involvement. *Journal of Personality and Social Psychology*, *3*, 483-485.
- Eagly, A. H., & Warren, R. (1976). Intelligence, comprehension, and opinion change. *Journal of Personality*, *44*, 226-242.
- Eagly, A. H., Wood, W., & Chaiken, S. (1978). Causal inferences about communicators and their effect on opinion change. *Journal of Personality and Social Psychology*, *36*, 424-435.
- Ekstrom, R. B., French, J. W., & Harmon, H. H. (1962). *Kit of factor referenced cognitive tests*. Princeton, NJ: Educational Testing Service.
- Elms, A. C. (1966). Influence of fantasy ability on attitude change through role-playing. *Journal of Personality and Social Psychology*, *4*, 36-43.
- Fazio, R. H. (1985). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition: Foundations of social behavior*. New York: Guilford.
- Fazio, R. H., Chen, J., McDonel, E., & Sherman, S. J. (1982). Attitude accessibility, attitude-behavior consistency, and the strength of the object-evaluation association. *Journal of Experimental Social Psychology*, *18*, 339-357.

- Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude behavior consistency. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, (Vol.14, pp. 161–202). New York: Academic Press.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, *57*, 271–282.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117–140.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Festinger, L., & Maccoby, N. (1964). On resistance to persuasive communications. *Journal of Abnormal and Social Psychology*, *68*, 359–366.
- Fishbein, M. (1980). A theory of reasoned action: Some applications and implications. In H. Howe & M. Page (Eds.), *Nebraska symposium on motivation, 1979*. Lincoln: University of Nebraska Press.
- Fishbein, M., & Ajzen, I. (1972). Attitudes and opinions. *Annual Review of Psychology*, *23*, 487–544.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fishbein, M., & Ajzen, I. (1981). Acceptance, yielding and impact: Cognitive processes in persuasion. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Fiske, S. T., Kinder, D. R., & Larter, W. M. (1983). The novice and the expert: Knowledge-based strategies in political cognition. *Journal of Experimental Social Psychology*, *19*, 381–400.
- Folkes, V. (1985). Mindlessness or mindfulness: A partial replication and extension of Langer, Blank and Chanowitz. *Journal of Personality and Social Psychology*, *48*, 600–604.
- Forer, B. (1949). The fallacy of personal validation. *Journal of Abnormal and Social Psychology*, *44*, 118–123.
- Freedman, J. L. (1964). Involvement, discrepancy, and change. *Journal of Abnormal and Social Psychology*, *69*, 290–295.
- Freedman, J. L., & Sears, D. O. (1965). Warning, distraction and resistance to influence. *Journal of Personality and Social Psychology*, *1*, 262–266.
- Freedman, J. L., Sears, D. O., & O'Conner, E. F. (1964). The effects of anticipated debate and commitment on the polarization of audience opinion. *Public Opinion Quarterly*, *28*, 615–627.
- Gorn, G. (1982). The effects of music in advertising on choice behavior: A classical conditioning approach. *Journal of Marketing Research*, *46*, 94–101.
- Gorn, G., & Goldberg, M. (1980). Children's responses to repetitive TV commercials. *Journal of Consumer Research*, *6*, 421–425.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion, and attitude change. In A. Greenwald, T. Brock, & T. Ostrom (Eds.), *Psychological foundations of attitudes* (pp. 148–170). New York: Academic Press.
- Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, *35*, 603–618.
- Greenwald, A. G. (1981). Ego task analysis: An integration of research on ego-involvement. In A. Hastorf & A. Isen (Eds.), *Cognitive social psychology*. Amsterdam: Elsevier.
- Griffit, W., & Veitch, R. (1971). Hot and crowded: Influences of population density and temperature on interpersonal affective behavior. *Journal of Personality and Social Psychology*, *17*, 92–98.
- Harkins, S. G., Latané, B., & Williams, K. D. (1980). Social loafing: Allocating effort or taking it easy. *Journal of Experimental Social Psychology*, *16*, 457–465.
- Harkins, S. G., & Petty, R. E. (1981a). The effects of source magnification of cognitive effort on attitudes: An information processing view. *Journal of Personality and Social Psychology*, *40*, 401–413.

- Harkins, S. G., & Petty, R. E. (1981b). The multiple source effect in persuasion: The effects of distraction. *Personality and Social Psychology Bulletin*, *7*, 627-635.
- Harkins, S. G., & Petty, R. E. (1982). Effects of task difficulty and task uniqueness on social loafing. *Journal of Personality and Social Psychology*, *43*, 1214-1229.
- Harkins, S. G., & Petty, R. E. (1983). Social context effects in persuasion: The effects of multiple sources and multiple targets. In P. Paulus (Ed.), *Basic group processes*. New York: Springer-Verlag.
- Harkness, A. R., DeBono, K. G., & Borgida, E. (1985). Personal involvement and strategies for making contingency judgments: A stake in the dating game makes a difference. *Journal of Personality and Social Psychology*, *49*, 22-32.
- Harrison, A. A. (1977). Mere exposure. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10). New York: Academic Press.
- Harvey, O. J., Hunt, D. E., & Schroder, H. M. (1961). *Conceptual systems and personality organization*. New York: Wiley.
- Hass, R. G. (1981). Effects of source characteristics on cognitive responses and persuasion. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Hass, R. G., & Grady, K. (1975). Temporal delay, type of forewarning, and resistance to influence. *Journal of Experimental Social Psychology*, *11*, 459-469.
- Heesacker, M., Petty, R. E., & Cacioppo, J. T. (1983). Field dependence and attitude change: Source credibility can alter persuasion by affecting message-relevant thinking. *Journal of Personality*, *51*, 653-666.
- Heider, F. (1946). Attitudes and cognitive organization. *Journal of Psychology*, *21*, 107-112.
- Higgins, T., Herman, C. P., & Zanna, M. P. (Eds.). (1981). *Social cognition: The Ontario symposium* (Vol. 1). Hillsdale, NJ: Erlbaum.
- Himmelfarb, S., & Eagly, A. H. (1974). Orientations to the study of attitudes and their change. In S. Himmelfarb & A. Eagly (Eds.), *Readings in attitude change*. New York: Wiley.
- Hovland, C. I., Harvey, O. J., & Sherif, M. (1957). Assimilation and contrast effects in reactions to communications and attitude change. *Journal of Abnormal and Social Psychology*, *55*, 244-252.
- Hovland, C. I., Janis, I., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.
- Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly*, *15*, 635-650.
- Ingham, A., Levinger, G., Graves, J., & Peckham, V. (1974). The Ringelmann effect: Studies of group size and group performance. *Journal of Experimental Social Psychology*, *10*, 371-384.
- Insko, C. A. (1981). Balance theory and phenomenology. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Insko, C. A. (1984). Balance theory, the Jordan paradigm, and the Wiest tetrahedron. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 18). New York: Academic Press.
- Insko, C. A., Lind, E. A., & LaTour, S. (1976). Persuasion, recall, and thoughts. *Representative Research in Social Psychology*, *7*, 66-78.
- Insko, C. A., Turnbull, W., & Yandell, B. (1974). Facilitating and inhibiting effects of distraction on attitude change. *Sociometry*, *37*, 508-528.
- Janis, I. L., & Gilmore, J. B. (1965). The influence of incentive conditions on the success of role playing in modifying attitudes. *Journal of Personality and Social Psychology*, *1*, 17-27.
- Janis, I. L., Kaye, D., & Kirschner, P. (1965). Facilitating effects of "eating while reading" on responsiveness to persuasive communications. *Journal of Personality and Social Psychology*, *1*, 181-186.

- Johnson, E. J., & Russo, J. E. (1981). Product familiarity and learning new information. *Advances in Consumer Research*, 8, 151-155.
- Johnson, H. H., & Watkins, T. A. (1971). The effects of message repetitions on immediate and delayed attitude change. *Psychonomic Science*, 22, 101-103.
- Kahle, L. R., & Homer, P. M. (1985). Physical attractiveness of the celebrity endorser: A social adaptation perspective. *Journal of Consumer Research*, 11, 954-961.
- Kahneman, D., Slovic, P., & Tversky, A. (Eds.) (1982). *Judgment under uncertainty: Heuristics and biases*. London and New York: Cambridge University Press.
- Karabenick, S. A. (1983). Sex-relevance of content and influenceability: Sistrunk and McDavid revisited. *Personality and Social Psychology Bulletin*, 9, 243-252.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly* 24, 163-204.
- Keating, J. P., & Brock, T. C. (1974). Acceptance of persuasion and the inhibition of counterargumentation under various distraction tasks. *Journal of Experimental Social Psychology*, 10, 301-309.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15). Lincoln: University of Nebraska Press.
- Kelman, H. C. (1961). Processes of opinion change. *Public Opinion Quarterly*, 25, 57-78.
- Kelman, H. C., & Eagly, A. H. (1965). Attitude toward the communicator, perception of communication content, and attitude change. *Journal of Personality and Social Psychology*, 1, 63-78.
- Kelman, H. C., & Hovland, C. I. (1953). Reinstatement of the communicator in delayed measurement of opinion change. *Journal of Abnormal and Social Psychology*, 48, 327-335.
- Kerr, N., & Bruun, S. (1981). Ringelmann revisited: Alternative explanations for the social loafing effect. *Personality and Social Psychology Bulletin*, 7, 224-231.
- Kiesler, C. A., Collins, B., & Miller, N. (1969). *Attitude change: A critical analysis of theoretical approaches*. New York: Wiley.
- Kiesler, C. A., & Kiesler, S. (1964). Role of forewarning in persuasive communications. *Journal of Abnormal and Social Psychology*, 68, 547-549.
- Kiesler, S. B., & Mathog, R. (1968). The distraction hypothesis in attitude change. *Psychological Reports*, 23, 1123-1133.
- Kiesler, C. A., & Munson, P. A. (1975). Attitudes and opinions. *Annual Review of Psychology*, 26, 415-456.
- King, B. T., & Janis, I. L. (1956). Comparison of the effectiveness of improvised versus non-improvised role-playing in producing opinion change. *Human Relations*, 9, 177-186.
- Kleinhesselink, R. R., & Edwards, R. E. (1975). Seeking and avoiding belief-discrepant information as a function of its perceived refutability. *Journal of Personality and Social Psychology*, 31, 787-790.
- Kohlberg, L. (1963). The development of children's orientations toward a moral order. I. Sequence in the development of moral thought. *Vita Humana*, 6, 11-33.
- Kunst-Wilson, W. R., & Zajonc, R. B. (1980). Affective discrimination of stimuli that cannot be recognized. *Science*, 207, 557-558.
- Lammers, H. B., & Becker, L. A. (1980). Distraction: Effects on the perceived extremity of a communication and on cognitive responses. *Personality and Social Psychology Bulletin*, 6, 261-266.
- Landman, J., & Manis, M. (1983). Social cognition: Some historical and theoretical perspectives. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 16). New York: Academic Press.
- Langer, E. (1978). Rethinking the role of thought in social interaction. In J. Harvey, W. Ickes, & R. Kidd (Eds.), *New directions in attribution research* (Vol. 2). Hillsdale, NJ: Erlbaum.

- Langer, E., Blank, A., & Chanowitz, B. (1978). The mindlessness of ostensibly thoughtful action. *Journal of Personality and Social Psychology*, *36*, 635-642.
- Lastovicka, J., & Gardner, D. (1979). Components of involvement. In J. Maloney & B. Silverman (Eds.), *Attitude research plays for high stakes*. Chicago: American Marketing Association.
- Latané, B., Williams, K., & Harkins, S. G. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of Personality and Social Psychology*, *37*, 822-832.
- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, *28*, 129-137.
- Lingle, J. H., & Ostrom, T. M. (1981). Principles of memory and cognition in attitude formation. In R. E. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Linville, P. (1982). The complexity-extremity effect and age based stereotyping. *Journal of Personality and Social Psychology*, *42*, 193-210.
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, *37*, 2098-2109.
- Lowin, A. (1967). Approach and avoidance as alternate modes of selective exposure to information. *Journal of Personality and Social Psychology*, *6*, 1-9.
- Maass, A., & Clark, R. D. (1984). Hidden impact of minorities. Fifteen years of minority influence research. *Psychological Bulletin*, *95*, 428-450.
- Maddux, J. E., & Rogers, R. W. (1980). Effects of source expertness, physical attractiveness, and supporting arguments on persuasion: A case of brains over beauty. *Journal of Personality and Social Psychology*, *38*, 235-244.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*, 63-78.
- McDavid, J. (1959). Personality and situational determinants of conformity. *Journal of Abnormal and Social Psychology*, *58*, 241-246.
- McGuire, W. J. (1964). Inducing resistance to persuasion: Some contemporary approaches. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 1). New York: Academic Press.
- McGuire, W. J. (1968). Personality and attitude change: An information-processing theory. In A. Greenwald, T. Brock, & T. Ostrom (Eds.), *Psychological foundations of attitudes*. New York: Academic Press.
- McGuire, W. J. (1969). The nature of attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (2nd ed., Vol. 3). Reading, MA: Addison-Wesley.
- McGuire, W. J. (1981). The probabilistic model of cognitive structure and attitude change. In R. E. Petty, T. M. Ostrom, & T. C. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 2.). New York: Random House.
- McGuire, W. J., & Papageorgis, D. (1962). Effectiveness of forewarning in developing resistance to persuasion. *Public Opinion Quarterly*, *26*, 24-34.
- Millar, M. G., & Tesser, A. (1984). *Thought-induced attitude change: The effects of schema structure and commitment*. Unpublished manuscript. University of Georgia, Athens.
- Miller, N. (1965). Involvement and dogmatism as inhibitors of attitude change. *Journal of Experimental Social Psychology*, *1*, 121-132.

- Miller, N., & Baron, R. S. (1973). On measuring counterarguing. *Journal for the Theory of Social Behavior*, 3, 101-118.
- Miller, N., & Colman, D. (1981). Methodological issues in analyzing the cognitive mediation of persuasion. In R. E. Petty, T. M. Ostrom, & T. C. Brock (Eds.), *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.
- Miller, N., Maruyama, G., Beaber, R., & Valone, K. (1976). Speed of speech and persuasion. *Journal of Personality and Social Psychology*, 34, 615-625.
- Miller, R. L., Brickman, P., & Bolen, D. (1975). Attribution versus persuasion as a means for modifying behavior. *Journal of Personality and Social Psychology*, 31, 430-441.
- Mills, J. (1966). Opinion change as a function of the communicator's desire to influence and liking for the audience. *Journal of Experimental Social Psychology*, 2, 152-159.
- Mills, J., & Aronson, E. (1965). Opinion change as a function of the communicator's attractiveness and desire to influence. *Journal of Personality and Social Psychology*, 1, 173-177.
- Mitnick, L., & McGinnies, E. (1958). Influencing ethnocentrism in small discussion groups through a film communication. *Journal of Abnormal and Social Psychology*, 56, 82-92.
- Moscovici, S. (1980). Toward a theory of conversion behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 13). New York: Academic Press.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84, 231-259.
- Osterhouse, R. A., & Brock, T. C. (1970). Distraction increases yielding to propaganda by inhibiting counterarguing. *Journal of Personality and Social Psychology*, 15, 344-358.
- Ostrom, T. M., & Brock, T. C. (1968). A cognitive model of attitudinal involvement. In R. Abelson et al. (Eds.), *Theories of cognitive consistency: A sourcebook*. Chicago: Rand McNally.
- Pallak, M. S., Mueller, M., Dollar, K., & Pallak, J. (1972). Effect of commitment on responsiveness to an extreme consonant communication. *Journal of Personality and Social Psychology*, 23, 429-436.
- Pallak, S. S., Murrone, E., & Koch, J. (1983). Communicator attractiveness and expertise, emotional versus rational appeals, and persuasion. *Social Cognition*, 2, 122-141.
- Papageorgis, D. (1968). Warning and persuasion. *Psychological Bulletin*, 70, 271-282.
- Petty, R. E. (1977). *A cognitive response analysis of the temporal persistence of attitude changes induced by persuasive communications*. Unpublished doctoral dissertation. Ohio State University, Columbus.
- Petty, R. E., & Brock, T. C. (1976). Effects of responding or not responding to hecklers on audience agreement with a speaker. *Journal of Applied Social Psychology*, 6, 1-17.
- Petty, R. E., & Brock, T. C. (1979). Effects of "Barnum" personality assessments on cognitive behavior. *Journal of Consulting and Clinical Psychology*, 47, 201-203.
- Petty, R. E., & Brock, T. C. (1981). Thought disruption and persuasion: Assessing the validity of attitude change experiments. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion* (pp. 55-79). Hillsdale, NJ: Erlbaum.
- Petty, R. E., & Cacioppo, J. T. (1977). Forewarning, cognitive responding, and resistance to persuasion. *Journal of Personality and Social Psychology*, 35, 645-655.
- Petty, R. E., & Cacioppo, J. T. (1978). *A cognitive response approach to attitudinal persistence*. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada.
- Petty, R. E., & Cacioppo, J. T. (1979a). Effects of forewarning of persuasive intent and involvement on cognitive responses and persuasion. *Personality and Social Psychology Bulletin*, 5, 173-176.
- Petty, R. E., & Cacioppo, J. T. (1979b). Issue-involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. *Journal of Personality and Social Psychology*, 37, 1915-1926.

- Petty, R. E., & Cacioppo, J. T. (1981a). *Attitudes and persuasion: Classic and contemporary approaches*. Dubuque, IA: Wm. C. Brown.
- Petty, R. E., & Cacioppo, J. T. (1981b). Issue involvement as a moderator of the effects on attitude of advertising content and context. *Advances in Consumer Research*, *8*, 20-24.
- Petty, R. E., & Cacioppo, J. T. (1983a). Central and peripheral routes to persuasion: Application to advertising. In L. Percy & A. Woodside (Eds.), *Advertising and consumer psychology* (pp. 3-23). Lexington, MA: Heath.
- Petty, R. E., & Cacioppo, J. T. (1983b). The role of bodily responses in attitude measurement and change. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook*. New York: Guilford.
- Petty, R. E., & Cacioppo, J. T. (1984a). The effects of involvement on responses to argument quantity and quality: Central and peripheral routes to persuasion. *Journal of Personality and Social Psychology*, *46*, 69-81.
- Petty, R. E., & Cacioppo, J. T. (1984b). Motivational factors in consumer response to advertisements. In R. Geen, W. Beatty, & R. Arkin, *Human motivation: Physiological, behavioral, and social approaches* (pp. 418-454). Boston: Allyn & Bacon.
- Petty, R. E., & Cacioppo, J. T. (1984c). Source factors and the elaboration likelihood model of persuasion. *Advances in Consumer Research*, *11*, 668-672.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag, in press.
- Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology*, *41*, 847-855.
- Petty, R. E., Cacioppo, J. T., & Harkins, S. G. (1983). Group size effects on cognitive effort and attitude change. In H. Blumberg, A. Hare, V. Kent, & M. Davies (Eds.), *Small groups and social interaction* (Vol. 1, pp. 165-181). London: Wiley.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1981). The use of rhetorical questions in persuasion: A cognitive response analysis. *Journal of Personality and Social Psychology*, *40*, 432-440.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1984). Central and peripheral routes to persuasion: Application to counseling. In R. McGlynn, J. Maddux, C. Stoltenberg, & J. Harvey (Eds.), *Social perception in clinical and counseling psychology* (pp. 59-89). Lubbock: Texas Tech University Press.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1985). *Persistence of persuasion: A test of the Elaboration Likelihood Model*. Unpublished manuscript. University of Missouri, Columbia.
- Petty, R. E., Cacioppo, J. T., & Kasmer, J. (1985). *Effects of need for cognition on social loafing*. Paper presented at the Midwestern Psychological Association Meeting, Chicago.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, *10*, 134-148.
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1984). Attitude change and personal selling. In J. Jacoby & S. Craig (Eds.), *Personal selling: Theory, research, and practice* (pp. 29-55). Lexington, MA: Heath.
- Petty, R. E., Harkins, S. G., & Williams, K. D. (1980). The effects of group diffusion of cognitive effort on attitudes: An information processing view. *Journal of Personality and Social Psychology*, *38*, 81-92.
- Petty, R. E., Harkins, S. G., Williams, K. D., & Latané, B. (1977). The effects of group size on cognitive effort and evaluation. *Personality and Social Psychology Bulletin*, *3*, 579-582.
- Petty, R. E., Ostrom, T. M., & Brock, T. C. (Eds.) (1981). *Cognitive responses in persuasion*. Hillsdale, NJ: Erlbaum.

- Petty, R. E., Wells, G. L., & Brock, T. C. (1976). Distraction can enhance or reduce yielding to propaganda: Thought disruption versus effort justification. *Journal of Personality and Social Psychology*, *34*, 874-884.
- Petty, R. E., Wells, G. L., Heesacker, M., Brock, T., & Cacioppo, J. T. (1983). The effects of recipient posture on persuasion: A cognitive response analysis. *Personality and Social Psychology Bulletin*, *9*, 209-222.
- Puckett, J., Petty, R. E., Cacioppo, J. T., & Fisher, D. (1983). The relative impact of age and attractiveness stereotypes on persuasion. *Journal of Gerontology*, *38*, 340-343.
- Regan, D. T., & Cheng, J. B. (1973). Distraction and attitude change: A resolution. *Journal of Experimental Social Psychology*, *9*, 138-147.
- Regan, D. T., & Fazio, R. (1977). On the consistency between attitude and behavior: Look to the method of attitude formation. *Journal of Experimental Social Psychology*, *13*, 28-45.
- Rhine, R., & Severance, L. (1970). Ego-involvement, discrepancy, source credibility, and attitude change. *Journal of Personality and Social Psychology*, *16*, 175-190.
- Ronis, D. L., Baumgardner, M., Leippe, M., Cacioppo, J. T., & Greenwald, A. G. (1977). In search of reliable persuasion effects: I. A single session procedure for studying persistence of persuasion. *Journal of Personality and Social Psychology*, *35*, 548-569.
- Rosenberg, M. (1956). Cognitive structure and attitudinal affect. *Journal of Abnormal and Social Psychology*, *53*, 367-372.
- Ross, E. A. (1908). *Social psychology: An outline and a sourcebook*. New York: Macmillan.
- Ross, L. (1981). The "intuitive scientist" formulation and its developmental implications. In J. H. Flavell & L. Ross (Eds.), *Social cognitive development: Frontiers and possible futures*. London and New York: Cambridge University Press.
- Ross, L., Lepper, M., & Hubbard, M. (1975). Perseverance in self-perception and social perception: Biased attributional processes in the debriefing paradigm. *Journal of Personality and Social Psychology*, *32*, 880-892.
- Sadler, O., & Tesser, A. (1973). Some effects of salience and time upon interpersonal hostility and attraction during social isolation. *Sociometry*, *36*, 99-112.
- Sandelands, L. E., & Larson, J. R. (1985). When measurement causes task attitudes: A note from the laboratory. *Journal of Applied Psychology*, *70*, 116-121.
- Sawyer, A. G. (1981). Repetition, cognitive responses and persuasion. In R. Petty, T. Ostrom, & T. Brock (Eds.), *Cognitive responses in persuasion* (pp. 237-261). Hillsdale, NJ: Erlbaum.
- Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, *84*, 1-66.
- Schumann, D., Petty, R. E., & Cacioppo, J. T. (1985). *Effects of involvement, repetition, and variation on responses to advertisements*. Unpublished manuscript. University of Missouri, Columbia.
- Sherif, C. W., Kelly, M., Rodgers, H. L., Sarup, G., & Tittler, B. (1973). Personal involvement, social judgment, and action. *Journal of Personality and Social Psychology*, *27*, 311-327.
- Sherif, C. W., Sherif, M., & Nebergall, R. E. (1965). *Attitude and attitude change: The social judgment-involvement approach*. Philadelphia: Saunders.
- Sherif, M. (1977). Crisis in social psychology: Some remarks towards breaking through the crisis. *Personality and Social Psychology Bulletin*, *3*, 368-382.
- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Sherif, M., & Sherif, C. W. (1967). Attitude as the individual's own categories: The social judgment-involvement approach to attitude and attitude change. In C. W. Sherif & M. Sherif (Eds.), *Attitude, ego-involvement, and change*. New York: Wiley.
- Sherman, S. J., & Fazio, R. H. (1983). Parallels between attitudes and traits as predictors of behavior. *Journal of Personality*, *51*, 308-345.

- Sistrunk, F., & McDavid, J. W. (1971). Sex variable in conforming behavior. *Journal of Personality and Social Psychology*, *17*, 200-207.
- Sivacek, J., & Crano, W. D. (1982). Vested interest as a moderator of attitude-behavior consistency. *Journal of Personality and Social Psychology*, *43*, 210-221.
- Smith, B. L., Lasswell, H. D., & Casey, R. D. (1946). *Propaganda, communication, and public opinion*. Princeton, NJ: Princeton University Press.
- Smith, M. J. (1982). *Persuasion and human action*. Belmont, CA: Wadsworth.
- Snyder, M., & DeBono, K. G. (1985). Appeals to image and claims about quality: Understanding the psychology of advertising. *Journal of Personality and Social Psychology*, *49*, 586-597.
- Srull, T. K. (1983). The role of prior knowledge in the acquisition, retention, and use of new information. *Advances in Consumer Research*, *10*, 572-576.
- Staats, A. W., & Staats, C. K. (1958). Attitudes established by classical conditioning. *Journal of Abnormal and Social Psychology*, *57*, 37-40.
- Staats, C. K., & Staats, A. W. (1957). Meaning established by classical conditioning. *Journal of Experimental Psychology*, *54*, 74-80.
- Steiner, I. (1972). *Group process and productivity*. New York: Academic Press.
- Sternthal, B., Dholakia, R., & Leavitt, C. (1978). The persuasive effect of source credibility: A test of cognitive response analysis. *Journal of Consumer Research*, *4*, 252-260.
- Taylor, S. E. (1975). On inferring one's attitude from one's behavior: Some delimiting conditions. *Journal of Personality and Social Psychology*, *31*, 126-131.
- Taylor, S. E., & Fiske, S. (1978). Saliency, attention, and attributions: Top of the head phenomena. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol.11). New York: Academic Press.
- Taylor, S. E., & Fiske, S. (1984). *Social cognition*. Reading, MA: Addison-Wesley.
- Tesser, A. (1976). Thought and reality constraints as determinants of attitude polarization. *Journal of Research in Personality*, *10*, 183-194.
- Tesser, A. (1978). Self-generated attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol.11). New York: Academic Press.
- Tesser, A., & Conlee, M. C. (1975). Some effect of time and thought on attitude polarization. *Journal of Personality and Social Psychology*, *31*, 262-270.
- Tesser, A., & Leone, C. (1977). Cognitive schemas and thought as determinants of attitude change. *Journal of Experimental Social Psychology*, *13*, 340-356.
- Thurstone, L. L. (1928). Attitudes can be measured. *American Journal of Sociology*, *33*, 529-544.
- Tsal, Y. (1984). *The role of attention in processing information from advertisements*. Unpublished manuscript. Cornell University, Ithaca, New York.
- Vinokur, A., & Burnstein, E. (1974). The effects of partially shared persuasive arguments on group-induced shifts: A group problem solving approach. *Journal of Personality and Social Psychology*, *29*, 305-315.
- Watts, W. A. (1967). Relative persistence of opinion change induced by active compared to passive participation. *Journal of Personality and Social Psychology*, *5*, 4-15.
- Watts, W. A., & Holt, L. E. (1979). Persistence of opinion change induced under conditions of forewarning and distraction. *Journal of Personality and Social Psychology*, *37*, 778-789.
- Weber, S. J. (1972). *Opinion change is a function of the associative learning of content and source factors*. Unpublished doctoral dissertation. Northwestern University, Evanston, Illinois.
- Wells, G. L., & Petty, R. E. (1980). The effects of overt head-movements on persuasion: Compatibility and incompatibility of responses. *Basic and Applied Social Psychology*, *1*, 219-230.
- White, G. L. (1975). Contextual determinants of opinion judgments: Field experimental probes of judgmental relativity boundary conditions. *Journal of Personality and Social Psychology*, *32*, 1047-1054.

- Wicker, A. (1971). An examination of the "other variable" explanation of attitude-behavior inconsistency. *Journal of Personality and Social Psychology*, *19*, 18-30.
- Wilson, T. D., Dunn, D., Bybee, J., Hyman, D., & Rotondo, J. (1984). Effects of analyzing reasons on attitude-behavior consistency. *Journal of Personality and Social Psychology*, *47*, 5-16.
- Witkin, H. A., Goodenough, D. R., & Oltman, P. K. (1979). Psychological differentiation: Current status. *Journal of Personality and Social Psychology*, *37*, 1127-1145.
- Witt, W. (1976). Effects of quantification in scientific writing. *Journal of Communication*, *26*, 67-69.
- Wood, W. (1982). Retrieval of attitude-relevant information from memory: Effects on susceptibility to persuasion and on intrinsic motivation. *Journal of Personality and Social Psychology*, *42*, 798-810.
- Wood, W., Kallgren, C., & Priesler, R. (1985). Access to attitude relevant information in memory as a determinant of persuasion. *Journal of Experimental Social Psychology*, *21*, 73-85.
- Wyer, R. S., & Srull, T. (1984). *The handbook of social cognition*. Hillsdale, NJ: Erlbaum.
- Yalch, R. F., & Elmore-Yalch, R. (1984). The effect of numbers on the route to persuasion. *Journal of Consumer Research*, *11*, 522-527.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology Monograph Supplement*, *9*, 1-27.
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, *35*, 151-175.
- Zajonc, R. B., & Markus, H. (1982). Affective and cognitive factors in preferences. *Journal of Consumer Research*, *9*, 123-131.
- Zanna, M. P., Kiesler, C. A., & Pilkonis, P. A. (1970). Positive and negative attitudinal affect established by classical conditioning. *Journal of Personality and Social Psychology*, *14*, 321-328.
- Zanna, M. P., & Pack, S. J. (1975). On the self-fulfilling nature of apparent sex differences in behavior. *Journal of Experimental Social Psychology*, *11*, 583-591.
- Zillmann, D. (1972). Rhetorical elicitation of agreement in persuasion. *Journal of Personality and Social Psychology*, *21*, 159-165.
- Zimbardo, P. G. (1960). Involvement and communication discrepancy as determinants of opinion conformity. *Journal of Abnormal and Social Psychology*, *60*, 86-94.