# JAMES HULBERT and NOËL CAPON\*

Interpersonal communication in marketing is approached from a perspective that focuses on communication signs. A classification scheme is presented and relevant literature surveyed. Directions for future research are suggested.

# Interpersonal Communication in Marketing: An Overview

A significant proportion of marketing communications involves face-to-face interaction. Nevertheless, the importance of sales or market research interviews is sometimes obscured by such mass communications functions as advertising and publicity.

Marketing research has also emphasized mass, rather than interpersonal, communications. Research effort in advertising far exceeds that in personal selling, a discrepancy only partly attributable to the existence of independent, specialized organizations in advertising. In addition, despite improvements in many areas of marketing research, understanding of the research interview remains inadequate. In the area of interviewer bias, Boyd and Westfall [13, 14, 15], concluded that "despite the obvious need for research...dealing with interview bias, the work reported in the literature since 1964 can only be described as sparse, and of the type which adds little to existing knowledge" [15, p. 252].

Lack of research on selling and market research inter-

views is partly due to the complexity of interpersonal communication. Insufficient interest or support might also be responsible for the research deficit. However, this article takes the view that research may also have been hampered by failure to recognize that, while the purpose of communication clearly differs between the sales and research interviews, they have a variety of elements in common.

This article focuses on such shared communicative behavior by presenting a classification scheme for the subject area and surveying relevant literature in marketing and the behavioral sciences. A framework and suggestions for future research on interpersonal communications in marketing are provided.1

#### THE INDIVIDUAL IN COMMUNICATION

Figure 1 illustrates the individual's reception, interpretation, and response in the communications process. In interpersonal communications, part of the total set of stimuli bombarding the sense organs are signs, or physical events [21], generated by the other participant. These signs are available for *reception* (A) by the senses (input channels) of the receiver, although not all are received.<sup>2</sup> This loss is shown by reducing the width of the flow as it leaves the sensory organs. The flow is no longer of signs, but internal representations of them.

The next stage in the process is perception (B), in which the individual interprets certain internal representations. Of the total flow of representations available for perception, only a certain proportion are consciously

Selection and interpretation of these representations are dependent not only upon the person's values, knowledge, motives, and attitudes (C), but also upon the relationship between the impinging stimuli in his perceptual field. For example, the context of an event may be a far more important determinant of perception than prior beliefs, attitudes, or values,

Certain classes of stimuli require no conscious deliberation in responding. The interpreted flow of representations is viewed as being sorted at D: those flowing through the "yes" branch are associated with a habitdetermined response, eliciting "programmed" responses from the individual. Representations sorted through the

<sup>\*</sup> James Hulbert is Assistant Professor of Business Administration and Noël Capon is a doctoral student in marketing at Columbia University. They thank Karl O. Magnusen and Morris Holbrook of Columbia University and Walter R. Nord of Washington University for their helpful comments. The support of the Faculty Research Fund of the Graduate School of Business, Columbia University, is also acknowledged.

<sup>&</sup>lt;sup>1</sup> Interconsumer and intrafirm communications are excluded

from the discussion.

\*Note that the individual may choose not to expose his sensory organs to certain inputs—a process represented by  $E \to F \to G \to A$ . Clearly, this phenomenon is closely related to the concept of selective exposure [23].

C Values, Attitudes Input Motives, Knowledge Internal В Signs Reception Perception representations ٥ feedback Is feedback There Habitual Internal Response No Yes F Signs Encoding Transmission Decider Output Syntactic Semantic Pragmatic

Figure 1
A PARADIGM OF THE INDIVIDUAL IN COMMUNICATION

"no" branch are consciously deliberated (E) before response. Choice of response is moderated by the individual's values, knowledge, motives, and attitudes (C). The flow of potential responses emerges from the decider and operates in two ways. First, via the internal feedback loop, the flow influences the perception of stimuli which continue to impinge on the organism. Second, potential responses are encoded (F) into a form suitable for transmission (G) through appropriate verbal or muscular action. Into the latter group fall responses which control the sense organs, and hence reception (G) A)

A portion of the response signs are consciously transmitted, but others, not intended for transmission, are also available as stimuli to the other participant. The external feedback loop indicates that the individual's sensory system is sensitive to his own output—which can therefore act as input to the system.

The communication paradigm suggests no fundamental differences between mass and interpersonal communications in reception and interpretation of signs.

However, in interpersonal communications the elicited responses are generally immediate and available to the other participant, whose behavior they may modify. Thus, the paradigm serves to focus attention on the dynamics of the interaction as representing the most important distinction between the two types of communication.

The paradigm also illustrates the concepts of selective exposure  $(E \to F \to G \to A)$  and selective perception  $(C \to B \text{ and } E \to B)$  and emphasizes that these mechanisms can act dynamically during a given communication. For example, a message which begins with stimuli inconsistent with values may be screened out. The feedback loops emphasize the dynamics of interpersonal communications.

This flow of signs (and, implicitly, the relationship between them) corresponds to the *syntactic* domain in communications theory. The relationships between signs, perception, and sign encoding relate closely to the *semantic* category. Finally, the decider function is the equivalent of the *pragmatic* category, where the individ-

#### CLASSIFICATION SCHEME FOR INTERPERSONAL COMMUNICATION

Receiver role	Sender role			
	A Static, uncontrollable	B Static, controllable	C Dynamic (low frequency)	D Dynamic (high frequency)
1. Visual	a. Physical features (race, sex, age, etc.)	a. Clothing (style, neatness)     b. Physical features (hair style, facial hair)	a. Posture b. Axial orientation c. Distance	<ul><li>a. Body movement</li><li>b. Facial expression</li><li>c. Eyeline</li><li>d. Gesture</li><li>e. Head orientation</li></ul>
2. Auditory	a. Voice set	a. Accent	<ul> <li>a. Temporal speech patterning</li> <li>b. Accent</li> <li>c. Voice qualities</li> </ul>	<ul><li>a. Vocalizations</li><li>b. Verbal</li></ul>
3. Tactile and olfactory		a. Personal odor	<ul><li>a. Touching behavior</li><li>b. Thermal</li></ul>	

ual, having attached meaning to the signs, decides how to use the information [21].

However, only a proportion of signs are intended as communication by the sender, although others are available for reception. Furthermore, signs include far more than verbal stimuli. Indeed, Birdwhistell suggested that literate man's egocentrism has diverted him from the comprehension of communication [8].

We now turn to a review and classification of research in interpersonal communications. While acknowledging the importance of verbal content, the review emphasizes the role played by nonverbal signs which, until fairly recently, had remained comparatively neglected in empirical research.

#### A CLASSIFICATION SCHEME FOR INTER-PERSONAL COMMUNICATIONS RESEARCH

A cross-tabulation of sender's output and receiver's input channels is given in the table. The channels are simply the five senses. However, since tactile and olfactory systems are employed sparingly in interpersonal communication, they are collapsed into one category; taste is excluded.

The signal output classification is between static signs, fixed for the duration of the interaction, and dynamic signs, produced during the course of the interaction. The primary signal classifications are further subdivided:

Static, uncontrollable: a function of hereditary characteristics conditioned by life history, and indicating, for example, sex, race, and apparent age.

Static, controllable: can be controlled between interactions, but is fixed for the duration of the interaction—such as clothing and facial hair.

Dynamic (low frequency): produced during the interaction with low frequency of change—such as posture and interpersonal distance.

Dynamic (high frequency): produced during the

interaction with high frequency of change—such as gestures and facial expression.3

The cross-tabulation produces a 12-celled matrix. Verbal communication occupies only one cell, and a wide variety of behavior, generally described as non-verbal, remains. For an alternative scheme, see [49].

# EMPIRICAL RESEARCH IN INTERPERSONAL COMMUNICATIONS: A SELECTIVE REVIEW

One approach to interpersonal communications research focuses on the communication process itself; researchers have attempted to observe and measure output signs and relate them to other variables. Another approach ignores communications signs; researchers have attempted to relate measures of demographic, personality, and attitudinal characteristics directly to the outcome of the interaction. The process of communication is the major topic of this section.

# Research in Marketing

Few marketing studies have focused on interpersonal communication and even fewer on the communicative behavior involved. Evans hypothesized that in personal selling the more alike salesman and prospect, the greater the likelihood of a sale. In his study, however, only age and height were communications signs, and the results for these variables were not significant [28].

Gadel concluded that insurance agents concentrated their sales attempts on prospects similar to themselves in age. Thus her research, like Evans', is assigned to Cells A1 and A2. Unfortunately, the data were based on actual sales rather than sales approaches, and the al-

<sup>&</sup>lt;sup>3</sup> The high- and low-frequency categories resemble Argyle and Kendon's standing and dynamic features of an interaction [1].

ternative hypothesis of random approaches and selective success therefore invalidates her inference [32].

Chapple and Donald's study focused on dynamic signs. Employing the interaction chronograph, they measured the amount and frequency (not content) of verbal activity of one participant under varying verbal behavior patterns of the other. They alleged that tests on salespeople demonstrated that verbal behavior patterns correlated with sales success [20]. Their claim of predictive validity was supported by Norman [44], and this work, built on Chapple's earlier studies [19], fits neatly into Cell C2.

More recently, Willett and Pennington [57] and Pennington [45] studied the dynamics of interpersonal communication. Both recorded verbal content of salesman-prospect interaction in retail appliance stores; Pennington also recorded nonverbal activity, although no data were presented. Willett and Pennington employed a problem-solving model to analyze verbal content, while Pennington applied a bargaining model. Both studies are assigned to Cell D2.

Webster's summary article discussed interpersonal communications in personal selling, but presented no new empirical findings [56].

The marketing research interview literature also lacks research on the communication process. Most studies have attempted to demonstrate relationships between variables indicated by static, uncontrollable signs and interviewer bias. For example, Thumin found that the sex of the interviewer significantly affected responses: both female and male respondents admitted having insomnia to male interviewers more readily than to female interviewers [52]. Other interviewer bias studies have investigated sex [38, 42], race [3, 16, 38], and age [6, 42]. Despite evidence that other sign categories were important dimensions of interview bias [10], no research effort appears to have resulted.

#### Research Outside Marketing

While marketers have in general eschewed research on the interpersonal communications process, others have grappled with the problem directly. Three distinct areas, based on Duncan's categorization [24], can be identified:

Paralanguage, which includes voice qualities, speech nonfluencies, and such nonlanguage sounds as laughing, yawning, and grunting.

Body motion, which subsumes kinesics, gestures, and other body movements.

*Proxemics*, which encompasses the use of space and man's perception of it.

Within each area, two research philosophies have appeared. Fundamental research has focused on the development of notation systems for describing behavior, identifying its fundamental elements, and searching for systematic relationships between them. External variable studies have sought relationships between specific non-

verbal behavior and other variables such as personality characteristics and the communications environment.

#### Fundamental Research

Paralanguage. Duncan described Trager's schema of paralinguistic behavior [53] as the most authoritative [24]. The design was based on two principal components, vocal qualities and vocalizations, which together with speech result from a background of voice set (Cell A2):

- Voice qualities (modifications of all the language and other noises) include pitch range, vocal lip control, articulation control, resonance, and tempo.
   Vocalizations (variegated noises not having the
- 2. Vocalizations (variegated noises not having the structure of language) include: (1) vocal characterizers: laughing, crying, moaning, belching, and yawning; (2) vocal qualifiers: intensity, pitch height, and extent; and (3) vocal segregates, such as the English uh-uh for negation, uh-huh for affirmation, and the uh of hesitation.

While others have developed notation systems for paralanguage, there has been little work on the identification of fundamental elements or the relationship between them. Paralanguage may be assigned to the auditory input channel; in terms of Trager's design, voice qualities are placed in Cell C2 and vocalizations in Cell D2

Body motion/kinesics. Birdwhistell developed a detailed and comprehensive system for transcription of body motion, in which symbols were provided for virtually every human movement. The recording procedure used a set of photographs for the various body parts and a set of symbols for movement and position modifiers [7, 8, 9].

Birdwhistell attempted to develop a coherent structure of body motion. His approach led to the discovery of kinemes and kinemorphs, which combine to form higher level structures, analogous to phonemes, morphemes, and syntactic units in speech. In addition, he discovered "a set of necessary and formal body motion behaviors which are directly tied to linguistic structure" [8, p. 35].

Scheflen studied the relationship between patterns of behavior used in communication [50]. At levels higher than the syntactic sentence, he had some success in identifying standardized units of structure in body motion and verbal behavior. These signs, with which Birdwhistell, Scheflen, and others [22] were concerned, are dynamic, with visual input channels, and hence are classified in Cells C1 and D1.

Proxemics. Hall defined proxemics as "the study of how man unconsciously structures microspace" [34, p. 1003]. His earlier work [33] led to the development of a notation system for eight dimensions: postural-sex identifier, sociofugal-sociopetal orientation, kinesthetic factors, touch, retinal combinations, thermal, olfactory, and voice loudness behavior [34]. For the American culture, Hall described four distinct distances or zones

of human interaction: intimate, personal, social, and public. Human communication modalities have varying functions at these distances [35].

Although paralanguage and body motion studies can be classified into two cells, Hall's proxemic system requires two static and four dynamic cells to be completely classified. Thus he has pictured the interpersonal communications spectrum more broadly, but in less depth, than the body motion or paralanguage workers.

#### External Variable Research

From the many external variable studies, those most likely to be of interest to marketers are described here. For a more inclusive review, see [24].

Paralanguage. Most research in this area has been performed on hesitation, which is one of Trager's vocal segregates [53]. Hesitation includes such nonfluencies as pauses, stutters, and repetitions and has been shown to be related to the cognitive process of speech encoding [12, 36] and affective states of the individual [11, 43]. Some of the most interesting work involves experi-

Some of the most interesting work involves experimenter bias. Rosenthal and his co-workers' design used an experimenter who read the same set of instructions to each subject, whose responses to a set of neutral visual stimuli were then recorded [46]. A "differential emphasis" score based on elements of the experimenter's intonation and paralanguage was found to be highly correlated with subjects' ratings.

Another experiment tested the hypothesis that the behavior reflected in the differential emphasis score mediated experimenter bias. Subjects received taped instructions from experimenters and the differential emphasis score for each experimenter's instruction set predicted subjects' ratings on the experimental task well.

Studies on hesitation phenomena and experimenter bias fit into Cell D2.

Body motion/kinesics. Working with patients undergoing psychotherapy, Ekman identified relationships between body acts, body position, facial expression, and head orientations and the nature and intensity of emotion [26, 27]. He found that rates of occurrence of specific body acts enabled observers to identify the emotional state of patients at different stages in therapy treatment. He summarized empirical evidence which showed that "information about affect, the ongoing interpersonal relationship, and psychodynamics and ego defenses are provided by nonverbal behavior" [27, p. 213]. Ekman's work is classified in Cells C1 and D1, since his usage of nonverbal behavior refers to the dynamic categories.

A widely investigated category of body motion is visual interaction, which plays an important part in communication. Possible relationships have been studied between visual interaction and: (1) sex of participants, (2) speaking vs. listening, (3) affective quality of the interaction, (4) participants' personality characteristics, and (5) distance between participants.

The most powerful single variable in mediating visual interaction is sex. Exline found distinct visual interaction patterns for male-male and female-female dyads [29, 30, 31], and Argyle, Lalljee, and Cook reported that females were more uncomfortable than males when unable to see the other participant [2]. Under restricted visual conditions, males attempted to exert dominance through greater verbal participation. Efran and Broughton found that subjects required to make presentations to experimenters engaged in more visual interaction with experimenters with whom they conversed just prior to the experiment [25].

In studying interactions between pairs of previously unacquainted British college students, Kendon discovered a regularly recurring pattern of looking when the speaker/hearer roles were exchanged. As one person stopped speaking, he looked at the other; when the first speaker did not follow this pattern, there was a significant tendency for the other person to delay his response or to fail to respond. Kendon suggested four functions of gazing [39]:

- Cognitive, when subjects look away at difficult encoding points.
- Monitoring, when subjects look at their interactant to indicate the conclusions of thought acts and to check the interactant's attentiveness and reaction.
- 3. Regulatory, when responses may be demanded or suppressed by looking.4. Expressive, when degree of involvement or arousal
- Expressive, when degree of involvement or arousa may be signalled by looking.

Such visual interaction fits into Cell D1.

Proxemics. Hall's notation system was first tested empirically by Watson and Graves, who contrasted the interactions of pairs of Arabic and American students on a number of proxemic dimensions [55]. They found significant differences on all variables, with the Arabs being more intensively interactive.

We reported on a proxemic study of intracultural dyadic interaction [37]—that of salesmen and prospects in department stores. Differences in proxemic behavior by store and by department were confirmed.

Willis investigated initial speaking distance between standing interactants [58]. He found variations as a function of the relationship between the interactants, their sex, age, and race. These results suggest that speaking distance exhibits significant intracultural variation, and is not completely culturally programmed. Nevertheless, distances reported were closely in accord with Hall's postulated distance zones for interactions [35].

Other external variable research. In psychological experiments, Rosenthal [47] identified the "experimenter expectation" effect, reported in the marketing literature by Venkatesan [54]. The experimenter's hypothesis was found to be a significant determinant of his findings, yet analysis of films of interviews eliminated reinforcement as the cause. Using silent films and sound tracks, Rosenthal showed that early in the experiment the visual input

channel was crucial to prediction of the experimenter expectation effect and only later was prediction possible through the auditory channel. Experimenter bias was positively correlated with a number of variables, such as dominance, relaxedness, and likability. However, the direction of correlation often differed for the same variable as judged from the visual and auditory channels. For example, experimenters who later biased subjects' responses were seen as more honest but heard as less honest. The communication involved was evidently complex and unintended by the experimenter, with discrepancies between channels. Attempts to replicate Rosenthal's experiments have produced a recent conflict [4, 5, 41, 48].

The early importance of the visual channel was also suggested by Stone, who stated that identification which takes place visually is an essential prerequisite to communication [51].

#### INTERPERSONAL COMMUNICATIONS IN MARKETING: A REVISED FOUNDATION

The few empirical marketing studies involving communications signs have focused mainly on static, unconrollable characteristics. Thus this approach emphasizes selection rather than training for improving sales and research interviewing. However, a more serious problem is that research efforts have been diverted from study of the dynamics of interpersonal communications in marketing.

Figure 2
A SUMMARY MODEL OF INTERPERSONAL COMMUNICATION

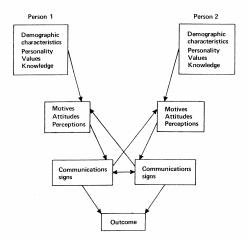


Figure 2, modified from [17, p. 583], illustrates hierarchically the relationship between the individual in communication (Figure 1), the matrix of communications signs (the table), and various external variables. It emphasizes common elements of the sales and research interviews, the interaction of the participants, and the joint nature of the outcome. Communications signs constitute the intervening variables whereby information is transferred.

Much research has demonstrated the importance of nonverbal signs in interpersonal communications. Such signs may be identified, classified, and measured, perhaps more easily than verbal signs. Research which focuses on both verbal and nonverbal signs may permit better modeling of the interaction. Since communications signs are, by definition, observable, problems of operationalization should be more easily solved. The links of interaction outcome to such constructs as motive, attitude, and perception and to more static characteristics of demography, personality, values, and knowledge may be better established through the examination of intervening communications signs, rather than directly.

One short-run effect of such an approach could be direct transfer of results from the behavioral sciences. Rosenthal's findings of the importance of the experimenter's paralinguistic and visual behavior [46] are important for both the market research and sales interview. Methodological benefits could also result. For example, we have used a modified version of Hall's proxemic notation system [31].

While transfer of method and results might influence the course of research on interpersonal communications in marketing, a revised conceptual framework can improve experimental design and yield insights for further research. For example, Levitt's source effect study, which employed a filmed sales interview as the communication, completely ignored the importance of the interpersonal feedback process [40]. Changing this aspect of the design would have more accurately represented the sales interview; see [18]. In marketing research, cost and control benefits of telephone interviewing have increased its use vis-à-vis personal interviewing. Comparative studies of validity do not appear to have been conducted, yet the conceptual scheme permits identification of striking differences between the interview methods, both in terms of output signs and input channels.

### CONCLUSION

This article has advocated a communication process approach to research on the selling and market research interviews. The development of one view of the individual in communication served to emphasize the importance of communications signs, many of which are nonverbal. Relevant research on interpersonal communications was then reviewed within the context of an input/output classification scheme.

Despite the fact that this article has stressed elements common to the selling and market research interview, the basic dissimilarities of the two types of interaction will, almost of necessity, lead to separate avenues of research. Nonetheless, the vantage point provided by this article can benefit future research in both areas. It is hoped that the communication process perspective will provide the conceptual and empirical assistance needed to improve understanding of the personal selling and market research interviews.

#### REFERENCES

- Argyle, Michael and Adam Kendon. "The Experimental Analysis of Social Performance," in Leonard Berkowitz, ed., Advances in Experimental Social Psychology. New York: Academic Press, 1967, 55–98.
   Argyle, Michael, Mangay, Lulling, and Mark, Cook. "The
- Academic Press, 1967, 55–98.

  2. Argyle, Michael, Mansur Lalljee, and Mark Cook. "The Effects of Visibility on Interaction in a Dyad," Human Relations, 21 (February 1968), 3–17.

  3. Athey, K. R., Joan E. Coleman, Audrey P. Reitman, and Jenny Tang. "Two Experiments Showing the Effect of the Interviewer's Racial Background on Responses to Questionnaires Concerning Racial Issues," Journal of Applied Psychology, 44 (August 1960), 224–6.

  4. Barber, Theodore Xenophon. "Invalid Arguments, Postmortem Analyses and the Experimenter Bias Effect," Journal of Consulting and Clinical Psychology, 33 (February 1969), 11–4.
- 1969), 11-4,
- David S. Calverley, Albert Forgione, John D. McPeake, John F. Chaves, and Barbara Bowen. "Five Attempts to Replicate the Experimenter Bias Effect," Journal of Convolution and Confidence of Confidenc of Consulting and Clinical Psychology, 33 (February 1969),
- Benny, Mark, David Riesman, and Shirley A. Star. "Age and Sex in the Interview," The American Journal of Sociol-ogy, 62 (September 1956), 143-52.

- "Hesitation and Grammarda Encoding, Language and Speech, 8 (July-September 1965), 148-58.
   Boyd, Harper W., Jr. and Ralph Westfall. "Interviewers as a Source of Errors in Survey," Journal of Marketing, 19 (April 1955), 311-24.
   "Interviewer Bias Revisited," Journal of Marketing

- "Interviewer Bias Revisited," Journal of Marketing Research, 2 (February 1965), 58-63.
   "Interviewer Bias Once More Revisited," Journal of Marketing Research, 7 (May 1970), 249-53.
   Bryant, Eugene C., Isaac Gardner, Jr., and Morton Goldman. "Responses on Racial Attitudes as Affected by Interviewers of Different Ethnic Groups," The Journal of Social Psychology, 70 (October 1966), 95-100.
   Cannell, Charles F. and Robert L. Kahn. "Interviewing," in Gardner Lindzey and Elliot Aronson, eds., The Handbook of Social Psychology. Reading, Mass.: Addison-Wesley, 1968, 526-95. 1968, 526-95,
- 18. Capon. Noël, Morris Holbrook, and James Hulbert. "In-

- dustrial Purchasing Behavior: A Critical Review," Working Paper No. K.U.3, Columbia University, 1971.
  Chapple, Eliot D. "Measuring Human Relations: An Introduction to the Study of the Interaction of Individuals," Genetic Psychology Monographs, 22 (February 1940), 3, 147
- 3-14/.
   20. and Gordon Donald, Jr. "An Evaluation of Department Store Salespeople by the Interaction Chronograph," *Journal of Marketing*, 12 (October 1947), 173-85.
   21. Cherry, Colin. On Human Communication: A Review, A Control of Combridge Mass: The MIT.
- Survey and A Criticism. Cambridge, Mass.: The M.I.T. Press, 1966.
- Condon, W. S. and W. D. Ogston. "A Segmentation of Behavior," *Journal of Psychiatric Research*, 5 (September 1967), 221-35.
- 23. Cox, Donald F. "Clues for Advertising Strategists: II,"

  Harvard Business Review, 39 (November-December 1961),
- 160-82.
   Duncan, Starkey, Jr. "Nonverbal Communication," Psychological Bulletin, 72 (August 1969), 118-37.
   Efran, Jay S. and Andrew Broughton. "Effect of Expectancies for Social Approval on Visual Behavior," Journal of Personality and Social Psychology, 4 (July 1966), 103-7.
   Ekman, Paul and Wallace V. Friesen. "Head and Body Cues in the Judgement of Emotion: A Reformulation," Perceptual and Motor Skills, 24 (June 1967), 711-24.
   —. "Nonverbal Behavior in Psychotherapy Research," in John M Shlien ed Research in Psychotherapy Vol. 3.

- Evans, Franklin B. "Selling as a Dyadic Relationship—a New Approach," American Behavioral Scientist, 6 (May 1963), 76-9.
- Exline, Ralph V. "Exploration in the Process of Person Perception: Visual Interaction in Relation to Competition, Sex and Need for Affiliation," *Journal of Personality*, 31 (March 1963), 1-20.
- \_\_\_\_\_\_, David Gray, and Dorothy Schuette. "Visual Behavior in a Dyad as Affected by Interview Content and Sex of Respondent," Journal of Personality and Social Psychological Property of Property of Property of Personality and Social Psychological chology, 1 (March 1965), 201-9.
- chology, 1 (March 1965), 201-9.
  31. Exline, Ralph V. and Lewis C. Winters. "Affective Relations and Mutual Glances in Dyads," in Silvan S. Tomkins and Carroll E. Izard, eds., Affect, Cognition and Personality. New York: Springer, 1965, 319-50.
  32. Gadel, M. S. "Concentration by Salesmen on Congenial Prospects," Journal of Marketing, 28 (April 1964), 64-6.
  33. Hall, Edward T. The Silent Language. New York: Double-Live 1969.
- day, 1959.
- . "A System for the Notation of Proxemic Behavior,"
- American Anthropologist, 65 (October 1963), 1003–26.

  ——. The Hidden Dimension. New York: Doubleday, 35. 1966
- 36. Henderson, Alan, Frieda Goldman-Eisler, and Andrew Skarbek. "Sequential Temporal Patterns in Spontaneous Speech," Language and Speech, 9 (September-December 1966). 207–16.
- 1966), 207–16.
  Hulbert, James and Noël Capon. "Anthropology and Marketing: An Empirical Study," Working Paper No. K.U.1, Columbia University, 1970.
  Hyman, Herbert. "Problems in the Collection of Opinion-Research Data," *The American Journal of Sociology*, 55 (January 1950), 362–70.
  Kendon, Adam. "Some Functions of Gaze-Direction in Social Interaction," *Acta Psychologica*, 26 (January 1967).
- Social Interaction," Acta Psychologica, 26 (January 1967), 22 - 63
- Levitt, Theodore. Industrial Purchasing Behavior. Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1965.

- Levy, Leon H. "Reflections on Replications and the Experimenter Bias Effect," Journal of Consulting and Clinical Psychology, 33 (February 1969), 15–8.
   Lineau, C. C. "Selection, Training and Performance of the National Health Survey Field Staff," The American Journal of Hygiene, 36 (November 1941), 111–22.
   Mahl, George F. "Disturbances and Silences in the Patient's Speech in Psychotherapy," Journal of Abnormal and Social Psychology, 53 (July 1956), 1–15.
   Norman, J. T. "Now They Stand Up Under Pressure," Sales Management, 73 (August 7, 1954), 36.
   Pennington, Allan L. "Customer-Salesman Bargaining Behavior in Retail Transactions," Journal of Marketing Re-

- havior in Retail Transactions," Journal of Marketing Research, 5 (August 1968), 255-62.
- search, 3 (Agust 1968), 253-62.
   Rosenthal, Robert Experimenter Effects in Behavioral Research. New York: Appleton-Century-Crofts, 1966.
   interpersonal Expectations: Effects of the Experimenter's Hypothesis," in Robert Rosenthal and Ralph Rosnow, eds., Artifact in Behavioral Research. New York: Acabes 1882 (2018)
- now, eds., Artifact in Behavioral Research. New York: Academic Press, 1969, 118–277.

  48. "On Not So Replicated Experiments and Not So Null Results," Journal of Consulting and Clinical Psychology, 33 (February 1969), 7–10.

  49. Ruesch, Jurgen. "Nonverbal Language and Therapy," in Alfred G. Smith, ed., Communication and Culture. New York: Holt, Rinehart and Winston, 1966, 209–13.

- 50. Scheflen, Albert E. "The Significance of Posture in Communications Systems," *Psychiatry*, 27 (November 1966), 316-31.
- Stone, Gregory P. "Appearance and the Self," in Arnold M. Rose, ed., Human Behavior and Social Processes. Boston: Houghton Mifflin, 1962, 86–118.
   Thumin, Frederick J. "Watch for Those Unseen Variables," Journal of Marketing, 26 (July 1962), 58–60.
   Trager, George L. "Paralanguage: A First Approximation," Studies in Linguistics, 13 (Spring 1958), 1–12.
   Venkatesan, M. "Laboratory Experiments in Marketing: The Experimenter Effect," Journal of Marketing Research, 4 (May 1967), 142–6.
   Watson, O. Michael and Theodore D. Graves "Quantitative

- Watson, O. Michael and Theodore D. Graves. "Quantitative Research in Proxemic Behavior," *American Anthropologist*, 68 (August 1966), 971–85.
- Webster, Frederick E., Jr. "Interpersonal Communication and Salesman Effectiveness," *Journal of Marketing*, 32 (July 1968), 7-13.
- Willett, Ronald P. and Allan L. Pennington. "Customer and Salesman: The Anatomy of Choice and Influence in a Retail Setting," *Proceedings*. Fall Conference, American Marketing Association, 1966, 598–616.
- 58. Willis, Frank N., Jr. "Initial Speaking Distance as a Function of the Speakers' Relationship," *Psychonomic Science*, 5 (June 1966), 221-2.

#### ARTICLES ACCEPTED FOR PUBLICATION\*

Adaptive Pricing by a Retailer

Leonard J. Parsons and W. Bailey Price

Maximum Likelihood Estimation of Central-City Food Trading Areas George H. Haines, Jr., Leonard S. Simon, and Marcus Alexis

Multivariate Analysis of Sales Responses of Competing Brands to Advertising

Neil E. Beckwith

Advertising in Black and White

Mary Jane Schlinger and Joseph T. Plummer

A Measure of Brand Acceptance

David A. Aaker

Informal Group Influence on Risk Taking

Arch G. Woodside

Political Instability as a Determinant of Direct Foreign Investment in Marketing

Peter D. Bennett and Robert T. Green

Changes in Explicit Information and Brand Perceptions

Vithala R. Rao

Improving Sales Forecasts for Appliances An Exploratory Investigation of Brand Switching

Hoy F. Carman

On the Interpretation of Canonical Analysis

William A. Chance and Norman D. French

Alternative Econometric Models of Sales-Advertising Relationships

Mark I. Alpert and Robert A. Peterson

Vithala R. Rao

A Microanalytic Approach to Store Location Analysis

David B. MacKay

Factor Analysis of Perceptual Change

Terry G. Vavra

A Note on Measurement of Social-Psychological Belief Systems

Paul E. Green, Yoram Wind, and Arun K. Jain

Can Private Brand Buyers Be Identified?

The Appeal of Buying Black

A Computer On-Line Marketing Mix Model

Phillip C. Burger and Barbara Schot,

Dennis H. Gensch and Richard Staelin

The Majority Effect and Brand Choice

Jean-Jacques Lambin

A Threshold Model of Consumer Purchasing Decisions

Jean E. Draper and Richard W. Hansen

Paul Kau and Lowell Hill

<sup>\*</sup> These will appear in some future issue, not necessarily the next one; titles may be changed at publication.