AN INVESTIGATION OF THE ABILITY OF SALESMEN TO MONITOR FEEDBACK

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ABSTRACT

AN INVESTIGATION OF THE ABILITY OF SALESMEN TO MONITOR FEEDBACK

By

Gary Michael Grikscheit

The purpose of this research is to experimentally investigate several of the salesman's communications characteristics when he is face to face with a buyer; specifically, his sensitivity to and his utilization of the verbal and nonverbal information available in feedback from prospects. The analysis is structured in terms of a research model, derived from personal selling and communication theory and sales performance indices. In the model, the salesman's decoding behavior is termed understanding and his receiver-thinking-source behavior as picking; together these behaviors make up monitoring. Sales effectiveness is defined in terms of indices based on three dimensions of sales performance as well as an index ranking salesmen on sales potential.

The two premises underlying the research are:

1-0 The effectiveness of a salesman's communication in the face-to-face situation is dependent upon his ability to monitor feedback.

2-0 The high effect salesman demonstrates a more pronounced shift from tactical to strategic thinking during the encounter than does the low effect salesman.

Salesmen view a series of sixteen scenes depicting buyer behavior on closed circuit T.V. with the objective of making a sale. After each scene, the tape is stopped and salesmen report both the verbal and non-verbal information just received and the strategy and tactics they would use next. Responses are made in a research booklet containing both rating scales and open ended questions. The latter are content analyzed to derive Idea Scores before test statistics are computed.

The concept of <u>understanding</u> is supported by significant results for the research hypotheses predicting high effect salesmen will report more cues, more non-verbal cues, and more consistent encounter ratings both in and over time than low effect salesmen. Only the null hypothesis concerning verbal cues is not rejected. The research findings suggest that success in selling is not tied to a superior ability to interpret verbal feedback alone, rather that the successful salesman is able to "decode" more of the information in the non-verbal component of feedback than the less successful man. In addition, the high effect salesman is also able to

take the information available at each point in the sale and determine how favorable or unfavorable it is to the whole.

The concept of picking is supported by significant results for the research hypotheses concerned with tactical change. The findings provide support for the proposition that the high effect salesman, in adjusting his approach to the prospect, explores more alternatives early in the sales call than does his low effect counterpart. Once settled on an approach, however, he does not continue to adjust tactically as does the low effect salesman.

The concept of monitoring is supported by findings showing that the responses high effect salesmen pick are more closely matched to their understanding of the sales call than are the responses of the low effect men. It appears that the high effect salesmen understand more of the feedback to which they are exposed, especially the non-verbal component; are better able to summarize it consistently; and pick responses more appropriate for the prospect than do the low effect men.

The findings provide some support for the research model developed, as well as the theory from which it is derived; however, replication is required before a final judgment can be made.

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By

Gary Michael Grikscheit

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CHAPTER I

INTRODUCTION

The Purpose Of The Research

Personal selling has been described as "both an art and a science;"[1] hence, the purpose of this research is to go beyond the current knowledge of personal selling, experimentally investigating several of the salesman's communications characteristics. To date, these behaviors have remained largely within the realm of the salesman's art; since science has yet to comprehend how a seller communicates when he is face to face with a buyer; specifically, his sensitivity to and his utilization of the verbal and nonverbal information available to him from his prospects.

The Approach To The Research

Science is based upon a set of value judgments about reality which can neither be proved nor disproved.[2]

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[1] Harold C. Cash and W. J. E. Crissy, The Psychology Of Selling (New York: Personnel Development Associates, 1966), Volume I, Authors' Preface.

[2] W. Goode and P. Hatt, Methods In Social Research (New York: McGraw-Hill, Inc., 1952), p. 20.

Fundamentally, there is no "right" or "wrong" approach to a problem, only different ones. The Newtonian view of reality, on the one hand, permitted a distinction between process and objects.[3] The latter existed and could be studied in their own right as static entities. Reality, similarly, could be discovered. On the other hand, Einstein, Russell, Whitehead, and others have denied the older distinction between the two. In their view, objects can be studied only in relation to others, objects and the relationships between them are in a constant state of change, and reality cannot be discovered - it must be created. This conceptual foundation is frequently called "a process view of reality," although it has also been labeled the functionalist, transactional, interaction, exchange, or systems view.[4]

What does a process approach imply for personal selling research focused on the salesman?

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[3] David K. Berlo, The Process Of Communication (New York: Holt, Rinehart & Winston, Inc., 1960), pp. 24-25.

[4] See, for example, Wroe Alderson, Marketing Behavior And Executive Action (Homewood, Illinois: Richard D. Irwin, Inc , 1957), p. 16; Patrick J. Robinson and Bent Stidsen, Personal Selling In A Modern Perspective (Boston: Allyn & Bacon, Inc., 1967), p. 13; Stanford L. Optner, Systems Analysis For Business and Industrial Problem Solving (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965).

First, the salesman does not see the world around him as it is, but as he interprets it in light of his experience.[5] Each salesman, accordingly, structures information about and from prospects, creating what is real or meaningful for himself.[6]

Second, the salesman cannot be studied in isolation; he must be evaluated in relation to other variables. Hence, in this research personal selling is not defined in the traditional sense, it is defined as:

> "Interpersonal, face-to-face interaction for the purpose of creating, modifying, or maintaining a communicative relationship between utility producing and utility consuming entities or systems."[7]

In one sense, however, it is impossible to ever implement a pure process approach in research since to define variables and relationships freezes the behavior under study; when in actuality, it has continued to change.[8] In another sense, no representation of behavior is complete,

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5 David K. Berlo, "Empathy and Managerial Communication," Empathy and Ideology: Aspects Of Administrative Innovation ed. Charles Press and Alan Arian (Chicago: Rand McNally & Co., 1966), p. 131.

6 Kenneth W. Spence, "The Nature of Theory Construction In Contemporary Psychology," Psychology Review, Vol. 51 (1944), p. 53.

7 Robinson and Stidsen, op. cit., p. 302.

8 Berlo, The Process of Communication, p. 25.

since to be useful, a model must be a simplification. Therefore, the process approach to research provides an orientation and guidance useful for developing analytic models.

A process model is developed below. It serves both as a framework for the statement of the research problem and as a cornerstone for the literature review. Where applicable, of course, it can also be used for predicting the behavior of salesmen.

A Process Model Of Personal Selling

While there are a large number of studies focusing on the dynamics of interpersonal interaction using the process approach in communications, in the marketing literature there are only a few isolated personal selling studies using this approach.[9] Since personal selling can be considered a special subset of communication behavior, the literature is a rich source of guidance in building a process model of personal selling.[10]

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[9] Only twenty-six process studies have been found to date, and over half of these focus on low level selling - at retail, in restaurants, and so on.

[10] See Dean C. Barnlund, Interpersonal Communication: Survey and Studies (Boston: Houghton Mifflin Company, 1968); (New York: The Bobbs-Merrill Company, Inc., 1966); and James H. Campbell and Hal W. Hepler (eds.) Dimensions in Communication (Belmont, California: Wadsworth Publishing Company, Inc., 1965).

David K. Berlo has proposed a general model of communication consisting of the following concepts and definitions:[11]

1. Source — A person with a reason to communicate his ideas, needs, information, and so on.
2. Encoder — The sending system which takes the ideas of the source and expresses them in the form of a message, or which translates the source's purpose into a message.
3. Message — Behavior in physical form - the translation of ideas, purposes, and intentions into a code or systematic set of symbols.
4. Channel — A medium, a carrier of messages.
5. Decoder — A system which retranslates or decodes the message, putting it in a form that the receiver can use.
6. Receiver — The target of the communication.

The concepts defined above are neither independent nor mutually exclusive, since communication is a process. However, they do represent the behaviors necessary for communication to take place. For example, a salesman (source), sitting across a desk from a prospect, has an idea which he thinks might help solve the prospect's problem. He therefore forms (encodes) a message and says, "You should consider leasing," (the message) which the prospect (receiver) interprets (decodes) in his mind in light of his problem. Finally in this example, the air carrying the sound waves (message)

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[11] Berlo, The Process Of Communication, pp. 32-37.

between source and receiver is the channel. This one-way transmission is shown by the top half of Figure 1.

In the illustrative example, the salesman-prospect communication is a simple one-way event. In reality, the salesman and prospect would in all probability discuss leasing at greater length. Their two-way interaction is also summarized in Figure 1.

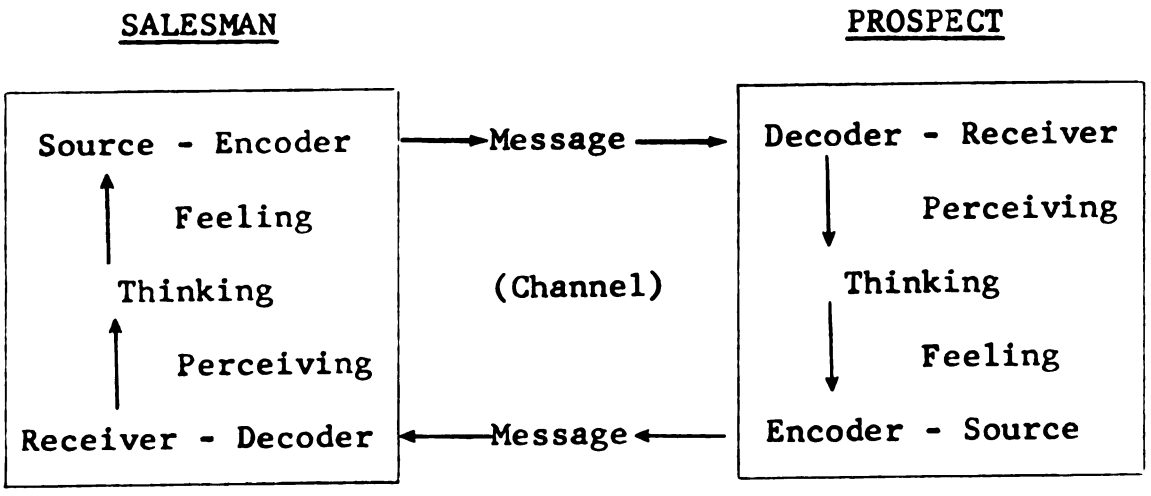

Figure 1

A Process Model Of Face-To-Face Communication

After the prospect has decoded the message and considered its meaning, he may become a source, encode a message for the salesman, and so on. This possibility is consequently shown in the bottom half of Figure 1.

Note that both the prospect and salesman, in switching their roles from receiver to source, are assumed to engage

in perceiving, thinking, and feeling.[12] These behaviors can be conceptualized as either components of the Source and Receiver concepts, or as new concepts, since at a later stage the source-thinking-receiver concepts will be merged.

The model outlined provides a general communications framework within which to approach salesman-prospect behavior. Several minor changes will be made, however, to adapt the model to the purpose of this research, and the terminology will be completely redefined to facilitate exposition.

First, since only face-to-face aspects of selling communication are under investigation, the concept of channel is not of material importance and will not be considered further. Problems of intersense modalities are considered a function of encoding and decoding, not of channels, as some authors argue.[13]

Second, to insure the clarity of the discussion, the salesman's decoding behavior will be called <u>understanding</u>, and his Receiver-thinking-source-behavior as <u>picking</u> a response. Further, <u>understanding</u> and <u>picking</u> together make up <u>monitoring</u>.

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[12] W. J. E. Crissy and Robert M. Kaplan, <u>Salesmanship: The Personal Force In Marketing</u> (New York: John Wiley & Sons, Inc., 1969), pp. 70-74.

[13] Miller, <u>op. cit.</u>, p. 59.

Third, to differentiate between the salesman and prospects as sources and receivers, the salesman is always the sender and the prospect always the receiver.

Fourth, to differentiate between messages sent from and to the sender and receiver, a message from the sender to the receiver is a signal and from the receiver to the sender is feedback.

Fifth, communication between salesman and prospect may occur in any number of places, ranging from an office to a golf course. These "environments" inevitably influence interactions. For example, office size and interior decoration provide information about the man behind the desk. In this model, therefore, the environment is assumed to return feedback to the sender.

Sixth, encoding is redefined as signal sending.

Seventh, both signal and feedback can consist of verbal and non-verbal components. Non-verbal is defined as: a signal or signals involving the use of gestures, facial expressions, body movements, space, and time. Verbal is defined as: a signal or signals involving the use of spoken and written words rather than action or performance.

The term signal bank is used to indicate the repertoire of behaviors a sender has available for use.

The model can now be recast in light of the above changes and is presented in Figure 2. This model is consistent with the first model, but emphasizes the salesman's communications characteristics.

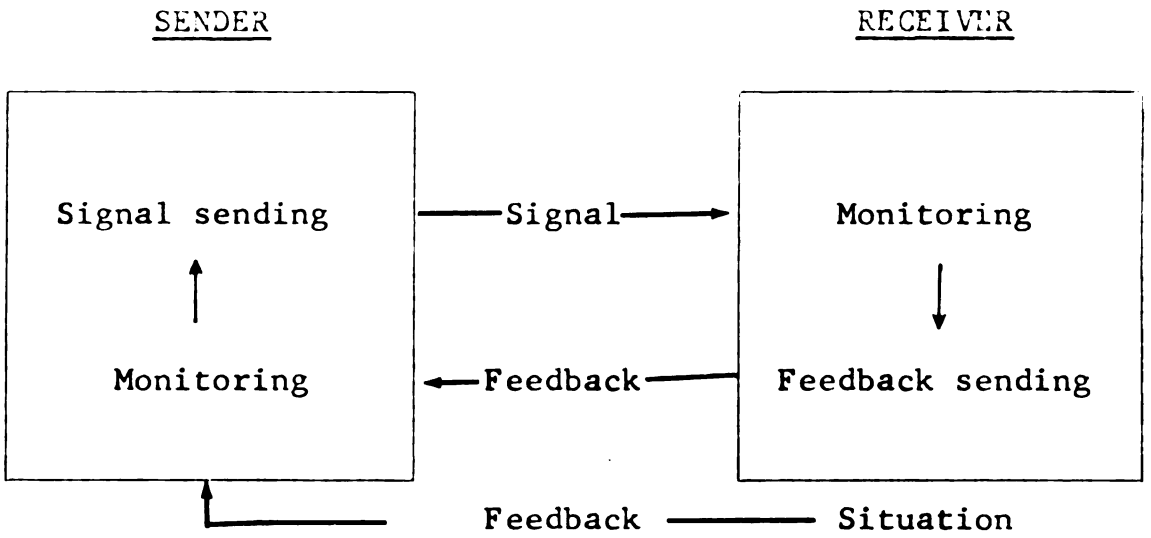

Figure 2

A Process Model Of Salesman-Customer Communication

In any given situation, the sender (salesman) has two major activities to perform: (1) sending verbal and non-verbal signals to his receiver (prospect or customer); and (2) monitoring the verbal and non-verbal feedback from the receiver and the situation. Situations may vary, but feedback is always inherent.

To the degree that the sender sends the appropriate signal, he moves closer to creating mutual understanding. The appropriate signal is defined as the most relevant to

the receiver, given the circumstances, and an adequate "bank" of signals. But how can the sender select an appropriate signal? The answer, according to the model, is that he must accurately monitor the verbal and non-verbal feedback from both the receiver and the situation. Since monitoring is defined to include: (1) Understanding the feedback returned; and (2) Picking an appropriate response from the signal bank under a time constraint, to the extent a sender can successfully monitor feedback, he can fit his signals both to the receiver and the circumstances. Consequently, this research is aimed at evaluating the proposition that it is only by monitoring feedback that the salesman, face to face with a prospect, can send the appropriate signal at the right time.

Implications Of The Model For Marketing

If the communications model of personal selling discussed above is an adequate approximation of reality, then it has many implications for marketing:

1. In determining the role of personal selling in the marketing mix, management should be as aware of the monitoring requirements of the salesmen as the signal requirements.
2. In selecting salesmen, the ability or potential ability of an applicant to read feedback is just as important as his capacity to give presentations.

3. It is probable that part of the failure of selection testing in the sales area can be attributed to predicting from paper and pencil tests, which may not correlate well with the verbal and non-verbal (audio-visual) variables in feedback and/or signal sending.

4. The salesman who is skilled in monitoring should be able to: (a) pick better signals; and (b) send them at more appropriate times.

5. Given the situation, a salesman who is able to read feedback is likely to be both a better strategist and better tactician, increasing the probability of making the sale.[14]

6. The ability to monitor feedback provides the salesman with the opportunity to learn from both his successes and failures. Consequently, the cultivation of this ability is important in the development of sales manpower.

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[14] "Strategy" is defined as the stance or style that will be taken in implementing plans; what will be done or not done; as well as how it will be done; and "tactics" as the adjustments required in a plan or strategy as the actual event unfolds. For a discussion of strategy and tactics in selling see W. J. E. Crissy and Robert M. Kaplan, op. cit., pp. 155-298.

7. As time horizons shorten and market-change accelerates, the salesmen are likely to have an increasingly important role in the marketing intelligence system. In short, a formal feedback retention system should be set up at the interpersonal level to utilize this information in conjunction with marketing research and other informational activities.

8. A salesman who is successful in reading feedback will be less likely to personalize rejection.

This list of implications is not exhaustive. Rather, it is meant to be illustrative of the types of inferences which can be made, subject to support of the monitoring concept.

Statement Of The Problem

Where creative or problem solving selling is employed,[15] modern theories of personal selling and communication jointly

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[15] For a discussion of creativity in selling see W. J. E. Crissy and Harold C. Cash, "Logic and Creativity In Selling," The Psychology Of Selling, Volume 8; and Robert N. McMurry, "The Mystique of Supersalesmanship," Harvard Business Review, (March-April, 1961), p. 114. For a discussion of problem solving see Richard M. Baker, Jr. and Gregg Phifer, Salesmanship: Communication, Persuasion, Perception (Boston: Allyn and Bacon, Inc., 1966) and Robert F. Gwinner, "Base Theory in the Formulation of Sales Strategy," MSU Business Topics (Autumn, 1968), p. 42.

suggest that the ability to monitor feedback is important to sales success. In this research, sales success is divided into two categories - high and low effect. By definition, the high effect salesman measures higher than the low effect salesman on one, more than one, or an index of factors associated with sales performance. For a fuller discussion, see pages 74 to 83.

Consequently, this research is designed to answer the following questions:

Do high effect salesmen differ from low effect salesmen in their ability to:

1. Monitor feedback?
2. Understand feedback?
3. Pick responses?
4. Adjust tactically to the demands of the situation?
5. Develop a strategy, given feedback?

Methodology

The phenomena under investigation have not been the focus of enduring scientific interest within a major discipline.[16] What interest there has been has appeared in diverse fields and usually without replication. Each study,

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[16] John M. Rathmell, A Bibliography On Personal Selling (Chicago: American Marketing Association, 1966), Preface, p. v.

moreover, usually has had different objectives, definition of terms, and methods. Hence, there exists no "ready made" set of designs or measurement instruments.

In this research an experimental design was used. A brief overview follows: Samples of high and low effect salesmen viewed a series of sixteen scenes of customer or prospect behavior on closed circuit T.V. with the objective of making a sale. After each scene or encounter in the series, the tape was stopped and the salesmen reported first, the verbal and non-verbal information just received; and second, the strategy and tactics they would use next. Responses were made in a research booklet.

Since high and low effect salesmen recorded their answers after each of the sixteen encounters, the research design allowed for the analysis of the trends in salesmen's tactical and strategic responses to informational gains, as well as the analysis of constant differences across scenes.

From the brief overview of the research design it is apparent that there are four key components: (1) the sample of salesmen, (2) the audio-visual stimuli, (3) the research booklet, and (4) the method of analysis. Each of these components is discussed in turn.

(1) The Sample Of Salesmen

The company sponsoring this research considers personal selling vital to its success and its customers have problems that require a problem solving approach on the part of salesmen. The ability to monitor feedback is theoretically of crucial importance to the success of the salesmen and the company.

The company made available five samples of salesmen for testing. These consisted of two groups of beginning salesmen, two groups of intermediate salesmen, and one group of advanced salesmen. Each sample consisted of between twenty and thirty salesmen. The company also furnished standard performance rating data on the men. This information was coded to insure anonymity. The question of the validity of the sales performance data on which the determination of high and low effect hinges is discussed in Chapter III.

(2) The Audio-Visual Stimuli

Samples of buyers' verbal and non-verbal behavior in the face-to-face situation were constructed, recorded on video-tape, edited, and arranged in a series of sixteen segments or scenes, entitled A Sales Call On The Holt Company. The script and stage directions are in Appendix A.

The taped behavior varies both in subtlety and the degree of favorableness to the sale, providing a set of stimuli very similar to the buyer behavior encountered by salesmen in the field. The stimuli are considered very authentic by the majority of salesmen and sales managers who have participated in the research.

(3) The Research Booklet

In brief, the research booklet was used to discover what information salesmen used for decision making and what they did with what they had available. Specifically, after viewing each scene the salesmen were asked an open ended question about what they saw, heard, and felt, together with whether this information was very positive, slightly positive, very negative, or slightly negative toward the sale.[17] The purpose of this question was to discover what information the salesmen had consciously available for tactical and strategic decision making. Following this question, the salesmen were asked to synthesize the information and rate the favorability of the overall encounter to the sale. The initial question and the encounter rating furnished the data necessary to test the research questions regarding the concept of understanding developed earlier.

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[17] Operationally, positive means that from the salesman's point of view there is an increased likelihood of accomplishing his objectives.

The salesmen were then asked questions to determine what they would do and say next. The information from these responses was used to evaluate the questions concerning the concept of picking defined above. Whether or not these responses represented a change in tactics was also measured in a summary rating scale. A copy of the complete question format is reproduced in Appendix B.

(4) The Methods Of Analysis

Two methods of analysis were used to evaluate the data in the research booklets completed by the salesmen. Content analysis was used to analyze the answers to the open ended questions and parametric statistics were used to analyze the rating scales. Only the former need be discussed here, since the latter are well known.

Content analysis is a technique for systematically analyzing the information reported by the salesmen. Basically it focuses on the content and handling of information. In this research the following steps were taken:

1. A system of mutually exclusive, exhaustive, and relevant categories was constructed.
2. Objective rules for coding the salesmen's written answers into the categories were drafted and checked for reliability.

3. From the items in each category, a category score was determined.
4. Category scores were compared: (a) with other category scores and (b) with scores from other systems of measurement. In the latter case, for example, category scores were compared with the salesmen's standard performance ratings given by the company.

Research Premises

It is assumed that the salesman has: (1) the capacity to deliver signals and (2) the motivation to do so. In addition, it is assumed that the receiver, the signal bank, and the situation are all given. This is consistent with the earlier discussion of communications and personal selling.

The research focuses on two major premises. The first major guiding premise is:

1-0 The effectiveness of a salesman's communication in the face-to-face situation is dependent upon his ability to monitor feedback.

A. The alternative and null hypotheses involving understanding are:

High effect salesmen will report:

1-1 H_1: More cues

H_0: Neither more nor fewer cues

1-2 H_1: More verbal cues

H_0: Neither more nor fewer verbal cues

1-3 H_1: More non-verbal cues

H_0: Neither more nor fewer non-verbal cues

1-4 H_1: More consistent encounter ratings

H_0: Neither more nor fewer consistent encounter ratings

than will low effect salesmen.

B. The alternative and null hypotheses involving picking are:

High effect salesmen will report:

1-5 H_1: Better developed responses to be made

H_0: Neither better nor worse developed responses to be made

1-6 H_1: More responses to be avoided

H_0: Neither more nor fewer responses to be avoided

1-7 H_1: More tactical changes

H_0: Neither more nor fewer tactical changes

1-8 H_1: More strategic thinking

H_0: Neither more nor less strategic thinking

1-9 H_1: More consistent response ratings

H_0: Neither more nor fewer consistent response ratings

than will low effect salesmen.

C. The alternative and null hypotheses involving understanding and picking are:

1-10 H_1: High effect salesmen will demonstrate greater agreement between encounter ratings and response ratings than will low effect salesmen.

H_0: High effect salesmen will demonstrate neither greater nor lesser agreement between encounter ratings and response ratings than will low effect salesmen.

The second major guiding premise adds a time dimension, allowing trend analysis. It is:

2-0 The high effect salesman demonstrates a more pronounced shift from tactical to strategic thinking during the encounter than does the low effect salesman.

A. The alternative and null hypotheses involving understanding are:

High effect salesmen will report:

2-1 H_1: More cues as the encounter unfolds

H_0: Neither more nor fewer cues as the encounter unfolds

2-2 H_1: More non-verbal cues as the encounter unfolds

H_0: Neither more nor fewer non-verbal cues as the encounter unfolds

2-3 H_1: More verbal cues as the encounter unfolds

H_0: Neither more nor fewer verbal cues as the encounter unfolds

2-4 H_1: More increasingly consistent classifications of individual scenes as the encounter unfolds

H_0: Neither more nor less increasingly consistent classifications of individual scenes as the encounter unfolds

than will low effect salesmen.

B. The alternative and null hypotheses involving <u>picking</u> are:

High effect salesmen will report:

2-5 H_1: More strategic items as the encounter unfolds

H_0: Neither more nor fewer strategic items as the encounter unfolds

2-6 H_1: Fewer tactical changes as the encounter unfolds

H_0: Neither more nor fewer tactical changes as the encounter unfolds

2-7 H_1: More increasingly consistent classification of response ratings

H_0: Neither more nor less increasingly consistent classification of response ratings

2-8 H_1: Fewer things to do and say over time

H_0: Neither fewer nor more things to do and say over time

2-9 H_1: More things to avoid doing or saying over time

H_0: Neither more nor fewer things to avoid doing or saying over time

than will low effect salesmen.

C. The alternative and null hypotheses involving <u>understanding</u> and <u>picking</u> are:

2-10 H_1: High effect salesmen will demonstrate greater increasing correspondence between encounter ratings and response ratings than will low effect salesmen.

H_0: High effect salesmen will demonstrate neither more nor less increasing correspondence between encounter ratings and response ratings than will low effect salesmen.

Limitations Of The Study

Care must be exercised in extending the results of this research beyond the specific type of personal selling studied, since:

1. The study is limited to a sample of the sales force of a single company. Generalization to other companies may not be possible where the selling problems are materially different.
2. The audio-visual stimuli were constructed to represent the typical buyer behavior with which the selected company's salesmen must cope. Generalization to other markets may not be warranted.
3. The study includes only a few of the many situational conditions salesmen encounter. The results may not be directly applicable in different circumstances.
4. The study requires salesmen to have basic levels of product knowledge, motivation, and signal sending ability. Generalization to other types of salesmen may be limited where their basic knowledge, motivation, and ability are deficient.

Potential Contributions To The Study Of Marketing Theory

The potential contributions of this research to marketing theory are the placing of feedback monitoring in proper perspective within selling theory and the clarification of the role of personal selling within the marketing mix. There are also several implications represented by the following:

1. At a very basic level of analysis a company faces three informational flows: input, throughput, and output. Over a certain range the information input and output flows overlap. Where feedback (input) must be monitored - delicate verbal and non-verbal discriminations made - and signals (output) returned under a time constraint, a salesman is required to manage the informational flows. Conceptually, therefore, one criterion for assigning the role of personal selling in the marketing mix could be the quality of feedback monitoring essential to success in a specific market.
2. In addition to the traditional criteria for classifying prospects or customers, suppose that they were to be also arrayed according to the skill needed to monitor their feedback. A given number of salesmen, whose feedback monitoring abilities were known, could then be allocated in theory to

the potential accounts so that the probability of effective communication would be maximized for the company.

3. At the dyadic level, effective communication could be facilitated in principle if the prospect and the salesman were to be matched so that the customer's signal sending ability and the salesman's monitoring ability were complementary. The converse also applies.

4. Research has shown that most companies have "unmanaged" information systems. As a result, information is delayed and distorted. It even disappears. The effect upon executive decisions is negative since decisions are no better than the information upon which they are based.

5. If a method can be developed for measuring salesmen's monitoring skills, it could be very useful in integrating the salesmen's information into the overall marketing intelligence system. In other words, each salesman could be evaluated and his feedback interpreted in terms of his ability to monitor feedback.

Potential Contributions To The Study Of Marketing Practice

The potential contributions of this research to marketing practice are numerous. It gives the businessman specific, experimentally derived, guidelines for improving the effectiveness of personal selling. The following represent several possible contributions:

1. A company's ability to objectively measure its salesmen's feedback monitoring skill both over time and at a point in time should be a very useful tool. Specifically, descriptions of selling jobs should include the type of feedback monitoring required; selection procedures should evaluate the applicant's feedback monitoring ability and aptitude; and tests should be used to appraise salesmen's monitoring performance over time. The objectivity of the approach eliminates many of the traditional measurement problems encountered in evaluating sales candidates as well as salesmen.
2. In addition, the technology to test feedback monitoring skill should be very useful when integrated with training and development programs. Salesmen should sharpen their understanding of the situation and their picking of tactical responses before they enter the marketplace. It is important to note

that a salesman who is more knowledgeable about the dynamics of interpersonal interaction will be better prepared for his entrance into the market and less likely to personalize rejection. It "protects" salesmen from interpreting a failure to achieve objectives as a personal affront. Hence, he will be more able to conduct the interpersonal part of his assignment.

3. In the face-to-face encounter, it is partially the salesman's facility with the spoken word (oral ability) and with listening (aural ability) that determines his success. Hence, one aspect of the testing of salesmen should tap their oral-aural ability under a time constraint.

4. In the face-to-face encounter it is partially the salesman's facility with non-verbal communication (the ability to use physical stimuli; gestures, movements, facial expressions, and so on) and with seeing (the ability to decode his receiver's physical stimuli) that determines his success. Hence, one aspect of the testing of salesmen should tap their physical stimuli-seeing ability under a time constraint.

CHAPTER II

CONCEPTUAL FRAMEWORK

Literature Review

> "In terms of number of investigations and volume of published results, there is little question but what the salesman is one of the most extensively studied men in the business world."[1]

If attention is turned from assessing the quantity of literature to evaluating its characteristics, three distinct categories emerge:

First, there are the traditional writings describing the techniques which lead to sales success.[2] These are the How I Started Earning $50,000 A Year In Sales At The Age Of 26 or How To Get More Business By Telephone.[3] The distinguishing characteristic of this category is that such books and

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[1] John B. Miner, "Personality And Ability Factors In Sales Performance," Journal of Applied Psychology, Vol. 46, No. 1 (1962), p. 6.

[2] John M. Rathmell, loc. cit.

[3] Robert J. Gallivan, Jr., How I Started Earning $50,000 A Year In Sales At The Age Of 26 (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963), and Jack Schwartz, How To Get More Business By Telephone (Los Angeles, California: Jack Schwartz Telephone Sales Clinic, 1964).

articles for the most part attempt to capture the successful sales experiences of individuals. Consequently, generalization and extrapolation of the ideas expressed are tenuous.

Second, there are the normative writings discussing how the ideal salesman should conduct his business. Again, as in the first category, little scientific evidence is offered to support the views advanced. Therefore, both the personal and normative writings are excluded from this review.

Third, are the scholarly works. These are distinguished by their conceptual and/or analytic content in their presentation of the theories, findings, and measurement techniques of personal selling.

Historically the literature has been dominated by attempts to measure sales success:

> "The emphasis has been, almost without exception, on the empirical process of prediction. Interest measures, locally constructed biographical inventories, and certain personality tests have been validated against a variety of sales criteria with considerable success."[4]

This historical accent on measurement and prediction is accompanied by a significant lack of theoretical work. In short: "It has been sufficient to find something that will predict."[5] Nevertheless, there is a small body of theory,

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[4] John B. Miner, loc. cit.

[5] Idem.

but since it has not been the object of much scientific interest it is underdeveloped and largely untested.

In addition, personal selling has not attracted a cohesive group of researchers or scientists interested in the field. This means that it has not enjoyed a research tradition. There is little agreement on definitions, concepts, variables, principal relationships, and criterion measures, and this may be partially responsible for the lack of a rationale tying theory and measurement together.

On a practical level, consequently, the fragmented literature of personal selling cannot offer very much empirically validated guidance to either the marketing scholar or the practitioner.

The review of the literature set forth below is structured around two sets of theories. Traditional theories of personal selling are reviewed along with available research findings. In Chapter III the measurement techniques applied to selling are discussed in conjunction with the research design and methodology. Theory, findings, measurement, traditional, and modern are defined as follows:

1. Theory — The terms theory and model are used synonymously. A model or theory of personal selling process is a type

of classification system which facilitates the abstraction and categorization of potentially relevant variables and relationships.[6]

2. Findings: The results or conclusions of any inquiry or investigation.

3. Measurement: The assignment of numbers to events or objects according to rules.[7]

4. Traditional: The older customary approaches or methods.

5. Modern: The newer contemporary approaches or methods.

The last four definitions listed should elicit few questions, but the first, theory, might raise many. The above definition was chosen so that most of what is commonly considered theory in the personal selling literature could be reviewed. This is done with the recognition that, from a more formal point of view, much of personal selling theory might better be labeled "concepts," "notions," or "points of view."

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[6] Gerald R. Miller, op. cit., pp. 52-53.

[7] J. P. Guilford, Psychometric Methods (New York: McGraw-Hill Book Company, Inc., 1954), p. 5.

Traditional Theories Of Personal Selling

For over a half century, stimulus-response, formula, and needs-satisfaction-I theories have enjoyed recognition. There has been a gradual development of these theories over the last fifty years, but attempts to empirically investigate their value are virtually non-existent in the marketing literature. It is not clear, therefore, what the predictive usefulness of these concepts is over and above their acknowledged heuristic value.

(1) The Stimulus-Response (S-R) Theories

The stimulus-response concepts of personal selling stem from Pavlov's pioneering studies and have been both refined and expanded by experimental psychologists and marketing scholars.[8] For every given stimulus, it is held that there is a specific response.[9] A salesman equipped with the correct set of stimuli, therefore, should be able to trigger a buying response in a prospect by sending the "right" signal. This

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[8] James F. Engel, David T. Kollat, and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, Inc., 1966), p. 116 and John A. Howard, Marketing Theory (Boston: Allyn and Bacon, Inc., 1965), pp. 102-110.

[9] Harold C. Cash and W. J. E. Crissy, "A Point Of View for Salesmen," The Psychology Of Selling, Vol. 1, p. 10.

is the usual statement of the S-R concept in the marketing literature, and it is incomplete. There are a number of implicit qualifications which must be made explicit.

The S-R concept says nothing about how the salesman might identify the set of signals to be used or how he would know when to use a specific appeal. Since no information is allowed to flow from the prospect, strictly speaking, the concept does not include tactical adjustment of the presentation in the face-to-face situation. Also, under the S-R concept it is implicitly assumed that all prospects are identical with respect to the product communication offered and that they are in a particular frame of mind when engaged by the salesman. The prospect is assumed to be a closed system or buying machine and the salesman must push the start button.

The S-R concept is essentially signal sending. The signals to be used have been constructed before the interview and are probably distilled from experience. The canned sales presentation is an example. The concept offers no guidance as to when or what signals to send. A standard mechanistic prospect is implied and no individual differences are recognized.

The S-R concept is probably an effective communications approach where analysis indicates that a standardized, one-way communication strategy will be effective. However,

to the best of this writer's knowledge, there is no empirical validation available.

(2) The Formula Concept

The formula concept of personal selling has been attributed to E. St. Elmo Lewis who in 1898 proposed that the salesman "attract attention, maintain interest, and create desire" in his prospect.[10] He later added "get attention." In 1911 a fifth term, "secure satisfaction," was included in the formula by Sheldon.[11] It is interesting to note that John H. Patterson, founder of The National Cash Register Company, was using a similar approach as early as 1884 and that in 1887 he published a "primer" for private use in which the NCR selling formula was outlined.[12]

Under the stimulus-response concept the prospect is assumed to exhibit only one mental state, whereas under the

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10 Edward K. Strong, Jr., The Psychology Of Selling And Advertising (New York: McGraw-Hill Book Company, Inc., 1925), p. 349.

11 Idem.

12 The Marketing Services Department, The National Cash Register Company, Handbook for Accounting Machine And EDP Salesmen (Dayton, Ohio), p. 4-1 and p. 6-1 and Joseph H. Crane, How I Sell A National Cash Register (Dayton, Ohio: The National Cash Register Company, 1887).

formula concept several mental states are assumed, each triggered off sequentially. Introduction of the series, however, requires a fundamental change in the model. Since the salesman must detect success at Step One before proceeding to Step Two in the formula, he must now begin to understand feedback from the prospect.

Like the stimulus-response model, no provision is made for the creation and selection of individual signals within the concept itself. Feedback, while included, is used to determine when to proceed to the next stage and set of signals. While a slightly more complex model of the prospect is stipulated, the assumption that he always proceeds from attention through action has never been demonstrated. Instead of finding and pushing one button, as was required in the stimulus-response concept, the salesman must now push a series of buttons to induce buying.

The formula concept is essentially a modified S-R model. It attempts to make more realistic assumptions about the prospect and implicitly recognizes the existence of feedback. Despite these changes, however, the distinctive characteristics of this concept are still similar to the S-R notion. Both are one-way communication theories, where feedback is

of minimal importance and where the prospect's response characteristics are assumed to fit a simplified mechanistic model.

(3) Needs-Satisfaction-I

The Needs-Satisfaction-I concept of personal selling was probably first suggested by Tipper, Hollingworth, Hotchkiss, and Parsons in 1915, but it did not receive much attention until the middle 1920's when E. K. Strong, Jr. publicized the idea.[13] He is known to have lectured on the subject in 1924, to have published an article entitled "Theories In Selling" in the Journal of Applied Psychology in 1925, and finally to have treated the needs-satisfaction-I theory in depth in his classic 1925 work The Psychology Of Selling and Advertising.[14]

The major difference between the first two traditional theories treated and the needs-satisfaction theory is that "the starting point is what is in the mind of the prospect, not appeals to be put in that mind."[15] The older selling

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13 Edward K. Strong, Jr., The Psychology Of Selling And Advertising, pp. 357-359, and "Theories In Selling," Journal of Applied Psychology, Vol. IX, No. 1 (March, 1925), pp. 75-86.

14 Idem.

15 Strong, The Psychology Of Selling And Advertising, p. 357.

theories were almost totally salesman oriented. Selling success depended upon the salesman, independent of the prospect. The emphasis on the prospect, therefore, represents a significant step toward the modern process conceptualization of the salesman-prospect dyad in which the salesman and prospect are mutually dependent and active.[16]

Essentially, the salesman using the needs-satisfaction-I approach seeks to discover the prospect's needs, makes him aware of those needs, and then fulfills them with his product. To discover particular needs the salesman must first question the individual. Consequently, his initial emphasis is on monitoring feedback instead of signal sending. Once the needs are known, of course, the salesman has a point of reference for formulating a selling strategy.

In addition to moving away from traditional salesman centered ideas, Strong also suggested that man is a "dynamic being," with the recognition that the other traditional approaches depended upon grossly oversimplified models of prospect behavior.[17] However, he did not altogether discard the mechanistic model of prospect behavior.

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16 W. J. E. Crissy and Robert M. Kaplan, op. cit., pp. 77-88.

17 Strong, op. cit., p. 348. For an up-to-date approach see Engel, et. al., Consumer Behavior, pp. 34-55.

He wrote:

> "The words: 'want,' 'solution,' 'action,' 'satisfaction' express this third theory of selling. The emphasis is put upon the wants of the prospect and the seller's function is to guide the thinking of the prospect to the desired end of buying."[18]

Hence, while Strong recognized that the prospect and salesman were dependent, the salesman was still guiding his prospect, a largely passive element in the interaction.

In this theory, needs are assumed to exist which the salesman must discover to determine his point of departure in the selling process. The role of feedback is now highly important, since at a point in time it is the primary source of information of an individual's wants and needs. Without this knowledge, the salesman cannot logically offer a product as a solution. He cannot "create desire" in the same manner as in the formula approach.

While understanding feedback is a highly important element in the needs-satisfaction-I theory, picking responses is only moderately important. This is because the prospect is primarily passive and does not actively influence the salesman. This reduces the importance of the salesman's ability to pick responses in situations where the model

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[18] Strong, op. cit., p. 349.

applies, since he is basically in control of the interview. The salesman is given more freedom to pick responses than visualized within the stimulus-response and formula concepts, but less than he will have in the needs-satisfaction-II theory in which neither the salesman nor the prospect controls the interview alone.

Modern Theories Of Personal Selling

The process approach used in Needs-Satisfaction-II theories of personal selling has been attributed to F. B. Evans.[19] In 1963 he implicitly defined personal selling as interpersonal interaction when he hypothesized:

> "The sale is a product of the particular dyadic interaction of a given salesman and prospect rather than a result of the individual qualities of either alone."[20]

This process concept of personal selling is still not widely held in the literature and has attracted little research attention. This lack of popularity is probably more

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[19] Patrick J. Robinson and Bent Stidsen, loc. cit.

[20] F. B. Evans, "Selling as a Dyadic Relationship - A New Approach," The American Behavioral Scientist, Vol. VI, (May 1963) reproduced in James Hudson Bearden (ed.) Personal Selling (New York: John Wiley & Sons, Inc., 1967), p. 213.

a function of its recent adoption than its lack of viability, since it has been widely applied in most of the other social sciences.[21]

(1) Needs-Satisfaction-II

The following question, however, must be considered: How do the Needs-Satisfaction-I and Needs-Satisfaction-II theories differ?

The needs-satisfaction-II concept of personal selling is similar to its predecessor, except that the potential customer is conceived as a more active participant in the salesman-prospect dyad. This change in the prospect's state from passive to active also means that the prospect may exercise a certain degree of influence over the salesman. This is significant because under the three theories discussed above, only the salesman wielded control. Stated differently, the theories previously discussed attempted to

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[21] Don Martindale, Functionalism in the Social Sciences: The Strength And Limits Of Functionalism In Anthropology, Economics, Political Science, and Sociology (Philadelphia: The American Academy Of Political and Social Science, 1965).

explain the individual behavior of only the salesman. The family of theories being discussed now attempt to explain the social behavior of both the salesman and his prospect.[22]

An attempt has been made to briefly show how the needs-satisfaction-II theories are a logical extension of traditional selling theory. It is likely, however, that the impetus for their development did not come so much from within personal selling as from the dramatic post World War II rise of functionalism in the social sciences.[23] Attention is now focused on a critical review of the modern theory of personal selling relevant to this research.

(2) Micro-Process

Two subgroups stand out. The first, called micro-process, is directly concerned with signal sending and feedback monitoring, while the second, macro-process, is only indirectly related. A number of partial theory statements are reviewed within each category.

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22 Kenneth R. Davis and Frederick E. Webster, Jr., Sales Force Management (New York: The Ronald Press Company, 1968), p. 154.

23 Martindale, op. cit. p. 144.

In the first group are the writings of Dr. W. J. E. Crissy. One chapter in Salesmanship: The Personal Force In Marketing[24] is devoted to "The Selling-Buying Process," where he says:

> "Yet, if you reflect for a moment, there can be no selling without buying. Indeed, the two comprise a single, interactive, interpersonal relationship. This is true whether the process occurs at the door of a home or in the executive suite of a large business. Buying is as fully active and participative as is selling. We cannot consider one without the other."[25] (Emphasis supplied)

This statement reveals a view of interpersonal interaction as social behavior. The prospect as well as the salesman is an active participant.

In Crissy's discussion, both the salesman's signal sending and feedback monitoring are central to the buying-selling process. Initially, the prospect's wants and needs must be discovered by the salesman through "inquiry and observation."[26] In other words, unless the salesman understands the prospect's needs he has no basis upon which to make a personalized presentation. If, for example, the prospect is satisfied with his present want-satisfier system, the salesman must disturb

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[24] Crissy and Kaplan, op. cit., pp. 77-90.

[25] Ibid., p. 77.

[26] Ibid., p. 82.

this dynamic balance or homeostasis.[27] Otherwise, the prospect will not seriously evaluate a new one. Naturally in the case where a salesman is attempting to keep a customer, he will seek to nurture the homeostasis. Crissy says:

> "In this step the salesman addresses questions to the other person to determine how his wants are now being satisfied. He does this to determine how he can better satisfy them with the products and services he is selling (his company's want-satisfiers system). One of the implications of this step is that the salesman will question the other person before making any statements of his own. On the basis of what he learns, he can then present his firm's wants-satisfiers . . . individualized to the wants of the customer or prospect."[28]

Questioning is a signal sending activity which in turn triggers feedback. Only the latter can provide the salesman with the information he needs to make a personalized presentation. Feedback is necessary but not sufficient; the salesman must also pick appropriate signals. Crissy says:

> "Because of the selective nature of perception . . . it is imperative for the salesman to single out a relatively small but important number of benefits that make his offerings a better purchase than what is now in use. An acid test for this selection is to pick those characteristics on which his firm's offering has greatest differential competitive advantage."[29]

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[27] Ibid., p. 81. For an interesting empirical study of the salesman-prospect dyad from a balance theory point of view, see John U. Farley and Robert L. Swinth, "Effects of Choice and Sales Message on Customer-Salesman Interaction," Journal of Applied Psychology, Vol. 51, No. 2 (1967), pp. 107-110.

[28] Crissy and Kaplan, op. cit., p. 82.

[29] Ibid., p. 84.

This brief abstract of Crissy's buying-selling process shows that his personal selling conceptualization is consistent with the model derived from communication theory presented in Chapter I.

The model is also supported by a set of partial micro-process theories frequently labeled empathy concepts. Although signal sending is sometimes included, either explicitly or implicitly, empathy as it is used in the personal selling literature tends to be synonymous with feedback monitoring.[30] Empathy has been defined as:

1. "The ability to perceive and react to the expectations, goals, attitudes, and behavior of the others in the interaction."[31] (Emphasis added)

2. "The ability to sense and react to verbal and non-verbal feedback."[32] (Emphasis added)

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30 An excellent review of the empathy literature can be found in Norman Kagan, David Krathwohl, and others, Studies In Human Interaction: Interpersonal Process Recall Stimulated By Video-Tape (East Lansing, Michigan: Educational Publication Services, College of Education, Michigan State University, 1967), pp. 459-478.

31 Davis and Webster, op. cit., p. 163.

32 Idem.

3. "The important central ability to feel as the other fellow does in order to be able to sell him a product or service . . ."[33] (Emphasis added)

4. "The ability to relate to another individual."[34]

5. "Feeling in the other person's place (sensing how he feels)."[35]

6. "The ability to assimilate and anticipate the feelings of others."[36]

In marketing, the empathy concept invariably includes the understanding component of monitoring. In other words, the empathetic person senses, perceives, or feels. He decodes information from the person with whom he is interacting. Note how similar this is to the concept of recipathy defined as "feeling triggered off by interaction with another person (the impact of the other person on the observer)."[37]

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[33] David Mayer and Herbert M. Greenberg, "What Makes a Good Salesman," Harvard Business Review, Vol. 42 (July-August, 1964), pp. 119-125.

[34] Robinson and Stidsen, op. cit., p. 274.

[35] Harold C. Cash and W. J. E. Crissy, "Personality And Sales Strategy," The Psychology Of Selling, Vol. 4, p. 11.

[36] Francis P. Tobolski and Willard A. Kerr, "Predictive Value of the Empathy Test in Automobile Salesmanship," Journal of Applied Psychology, Vol. 36, No. 5 (October, 1952), p. 310.

[37] Cash and Crissy, loc. cit., and Arnold Buchheimer, "The Development of Ideas About Empathy," Journal of Counseling Psychology, Vol. X, No. 1 (1963), p. 64.

In addition to acquiring information, the salesman must also use it as an input to react to or sell his prospect. Frequently, however, no distinction is made between picking a response and signal sending in the empathy literature. In general, the empathy concepts tend to be less specific than the feedback monitoring component of the research model proposed in Chapter I, but in agreement with it.

Within the Needs-Satisfaction-II family, the micro-process theories reviewed above support the importance of the salesman's signal sending and/or feedback monitoring in the dyad. These are the most relevant to the present research. There is another set of theories, however, the macro-process, which concentrate more on expectations, role consensus, goals, behavior, and attitudes of the participants and less on the immediate action and reaction within the dyad. The latter group offers indirect support for the present research approach and the communication model.

(3) Macro-Process

One of the most impressive statements of macro-process theory is entitled Personal Selling In A Modern Perspective, by Patrick J. Robinson and Bent Stidsen of the Marketing Science Institute. Both the scope of the work and the general model proposed far exceed the limits of the present

research. Nevertheless, a process approach is used and the ability to influence is recognized as dependent both upon the prospect and the salesman. While the authors use different terms to describe the feedback monitoring concepts, understanding and picking, it is clear from their discussion that feedback monitoring is important. For example, picking is emphasized in the following passage:

> "The fundamental strength of personal selling as a promotional tool inheres in the ability of the salesman to match the variety or complexity of behavioral competence of individual buyers, to tailor promotional messages uniquely to individual buyers and to provide relevant feedback to his own organization."[38] (Emphasis added)

Similarly, understanding, or the lack of it, is described as follows:

> "In general a salesman cannot take into account those aspects of a buying system of which he is not aware or to which he does not attribute importance."[39]

The discussion of the traditional and modern theories and the relative importance of the model concepts - signal sending, monitoring feedback, picking, and understanding - is summarized in Table 1.

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[38] Bent Stidsen, "Interpersonal Communication and Personal Selling," Marketing for Tomorrow . . . Today, M. S. Moyer and R. E. Vosburgh (eds.) (Chicago: American Marketing Association, 1967), pp. 111-116.

[39] Idem.

In any given cell, for example (3,3), the entry (Medium) indicates that the model concept (picking) is moderately important in the Needs-Satisfaction-I theory. Similarly, High, indicates a concept is very important, and Low, minimal or of no importance.

Table 1

The Importance Of Model Concepts In Selling Theory

MODEL CONCEPTS	TRADITIONAL THEORY		MODERN THEORY	
	S-R (1)	Formula (2)	Needs-Sat.-I (3)	Needs-Sat.-II (4)
1. Signal Sending	High	High	High	High
2. Monitoring Feedback	Low	Low	Medium	High
3. Picking	Low	Low	Medium	High
4. Understanding	Low	Medium	High	High

Among the traditional theories it is clear from the table that only the Needs-Satisfaction-I theory approaches the process model used in this research. Modern selling theory, however, is consistent with the research model developed in Chapter I.

Finally, attention is turned to a number of partial theories and findings from a set of articles on dyadic interactions in marketing.

(4) Micro- And Macro-Process Findings

Although Beckman and Davidson argue that the need for creativity varies from one customer to another, it is still instructive to rank the studies available according to McMurry's creativity levels.[40] These are shown in Table 2. Recent studies in personal selling, identified by author, are classified in Table 3 by creativity level and year first published.

With the exception of Tosi's study, in which the major hypotheses were not supported, the studies listed fall into two groups, insurance and retail studies. Since the present research is primarily concerned with creative selling, only the first studies are considered directly relevant.

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[40] Theodore Beckman and William R. Davidson, Marketing (New York: The Ronald Press, 1962) and Robert N. McMurry, loc. cit.

Table 2[41]

McMurry's Descriptions Of The Creativity Levels

Level	Description
7	Positions which require the creative sales of intangibles, such as insurance . . . .
6	Positions which demand the creative sale of tangible products like vacuum cleaners
5	Positions where major emphasis is placed on technical knowledge, for example, the engineering salesman who is primarily a consultant . . . .
4	Positions where the salesman is not expected or permitted to take orders but is called on only to build good will . . . . for example, detailmen . . . .
3	Positions where the salesman is predominantly an order taker but works in the field, as a spice salesman does
2	Positions where the salesman is predominantly an inside order taker but works in the field, for example, a haberdashery salesman
1	Positions where the salesman's job is predominantly to deliver the product, for example, milk, bread, oil

[41] Robert N. McMurry, op. cit., p. 114.

Table 3

Marketing Papers On The Dyad

McMurry's Creativity Levels	1963	1964	1965	1966	1967	1968
7 Creative	Evans	Gadel				
6						
5						
4 Good Will				Tosi		
3						
2 Order Taking		Granbois & Willett	Stafford & Greer	Willett & Pennington		Pennington
1						

42 Franklin B. Evans, "A Sociological Analysis Of The Selling Situation: Some Preliminary Findings," Emerging Concepts In Marketing, William S. Decker ed. (Chicago: American Marketing Association, 1962), pp. 476-482; M. S. Gadel, "Concentration by Salesmen on Congenial Prospects," Journal of Marketing, Vol. 28 (April, 1964), pp. 64-66; Henry L. Tosi, "The Effects Of Expectation Levels and Role Consensus On The Buyer-Seller Dyad," Journal of Business, Vol. 39 (October, 1966), pp. 516-529; Donald H. Granbois & Ronald P. Willett, "Patterns of Conflicting Perceptions Among Channel Members," Reflections On Progress in Marketing, L. George Smith ed. (Chicago: American Marketing Association, 1964),

In the "creative" row, Number 7, of Table 3 are the papers of Evans and Gadel on insurance agents. Evans says:

> "The main hypothesis of this study is that the interaction in the dyad determines the results. The more similar the parties in the dyad are, the more likely a favorable outcome, a sale. The areas being studied include the social, economic, physical, personality, and communicative characteristics of both parties."[43]

Note that his first sentence emphasizes the interaction in the dyad while his second changes the focus to the characteristics of the dyad. This means that Evans' results apply directly to the "macro" aspects of the dyad and only indirectly to the "micro." He concluded that:

> "Similarity of attributes within the dyad appears to increase the likelihood of a sale."[44]

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pp. 86-100; James E. Stafford and Thomas V. Greer, "Consumer Preference for Types of Salesmen: A Study of Independence-Dependence Characteristics," Journal of Retailing (Summer, 1965), pp. 27-33 and p. 47; Ronald P. Willett and Allan L. Pennington, "Customer and Salesman: The Anatomy of Choice and Influence in a Retail Setting," Science, Technology, and Marketing, R. M. Haas ed. (Chicago: American Marketing Association, 1966), pp. 598-616; and Allan L. Pennington, "Customer-Salesman Bargaining Behavior in Retail Transactions," Journal of Marketing Research, Vol. V (August, 1968), pp. 255-262.

43 Evans, "Selling As A Dyadic Relationship," p. 215.

44 Idem.

According to this finding, if a salesman could concentrate upon those prospects having the most "similar attributes," he would increase the likelihood of making a sale. With respect to age, there is indirect evidence supporting this contention. M. S. Gadel found that "there is some tendency toward concentration by the (insurance) agent on his own age group."[45]

The decision whether or not to attempt to sell a prospect is important to the efficient utilization of the salesman's time and energy. He must make this decision partially upon the information he receives from feedback. The findings of Evans and Gadel, therefore, only indirectly support the importance of monitoring feedback in selling.

Attention is now turned to the retail studies papers in the "order taking" row of Table 3.

It is not clear what relationship these studies have to the present research on creative selling, since one expert has written:

> "It has been clearly established that the various sales occupations do not form a homogeneous whole, that an effective predictor for one type of sales work may be of little value in a somewhat different situation."[46]

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45 Gadel, loc. cit.

46 Miner, op. cit., p. 6.

The retail studies contain both micro- and macro-process orientations. They are discussed, fully recognizing that the findings cited are merely suggestive. Selected findings follow:

In "Patterns of Conflicting Perceptions Among Channel Members," Granbois and Willett present a study of retailer-customer perceptions in the appliance industry. The authors' tentative conclusions were that "in general, the salesmen were surprisingly inept in 'sizing up' their customers."[47]

> "Consequently, a more accurate on-the-floor appraisal of customers' intentions, interests, and preferences, accompanied by a sales presentation based on these data, could result in a much higher percentage of completed transactions."[48]

In "Consumer Preference for Types of Salesman: A Study of Independence-Dependence Characteristics," Stafford and Greer investigate the notion that "certain types of people prefer certain types of salesmen."[49] In other words, the prospect has certain expectations regarding the salesman's behavior. A necessary condition for the sale, therefore, is that the salesman understand the expectations.[50]

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47 Granbois and Willett, op. cit., p. 97.

48 Ibid., p. 100.

49 Stafford and Greer, op. cit., p. 47.

50 Tosi, op. cit., p. 528.

In "Customer and Salesman: The Anatomy of Choice and Influence in a Retail Setting," Willett and Pennington conclude that:

> "Taken together, results from this study seem uniformly consonant with a problem-solving conceptualization of selling behavior in major appliance transactions."[51]

In "Customer-Salesman Bargaining Behavior In Retail Transactions," Pennington says:

> "Meaningful assessment of retail shoppers' bargaining behavior can have important ramifications in identifying the high intentions customer, determining the time of purchase, and adapting the sales presentation to the unique characteristics of individual consumers."[52]

The investigations recognize the importance of the salesman's understanding of the prospect. Hence, he must size up the client before he can begin either to fulfill expectations or help solve problems. These latter activities, moreover, require picking and signal sending. Hence, these findings tend to be consistent with the orientation of the present research, although their direct relevance to creative selling can be questioned.

In general, the research model introduced in Chapter I is supported by the personal selling theories and findings reviewed

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51 Willett and Pennington, op. cit., p. 616.

52 Pennington, op. cit., p. 262.

above. It is also evident, moreover, that very few theories of personal selling have ever been empirically validated and, as a consequence, there are very few, if any, findings available relative to creative selling.

In Chapter III the research design and methodology are discussed.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Kurt Lewin's dictum that "Nothing is so practical as a good theory," might be considered a *locus standi* at this point. In short, is the model proposed in Chapter I useful? Beyond any heuristic value it might have, is it practical? Responses to these questions require that the research model be operationalized and empirically tested. Therefore, in this chapter, research design and methodology are discussed, focusing on seven interrelated topics:

1. The nature of feedback
2. Delivering feedback
3. Creating the feedback or audio-visual stimuli
4. The research subjects
5. Distinguishing high and low effect salesmen
6. Recording subjects' responses
7. The testing procedures and facilities.

The Nature Of Feedback

As defined above, feedback consists of verbal and non-verbal components.[1] In addition to the "environment" in which the interpersonal interaction takes place, the salesman is exposed to the prospect's spoken and written words, as well as his gestures, facial expressions, and body movements. Examples of the types of data a salesman might find in feedback in the course of a sales call and the meanings he might attach to them are given in Table 4.

The entries in Table 4 are only illustrative, providing a qualitative look at feedback. Unfortunately, the quantitative dimensions remain largely unstudied and unknown.

In an essay on non-verbal communication, however, Randall Harrison makes the following statement:

> "Interestingly enough, it has been estimated that in face-to-face communication no more than 35% of the social meaning is carried in the verbal messages."[2]

He gives no reference to the source of his estimate or to how it was calculated. If we accept it, nevertheless, an

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[1] Miller, op. cit., p. 73; and Kagan and Krathwohl, op. cit., p. 575.

[2] Randall Harrison, "Non-verbal Communication: Explorations Into Time, Space, Action, and Object," Dimensions In Communications, James H. Campbell and Hal W. Hepler, eds. (Belmont, California: Wadsworth Publishing Company, Inc., 1965), pp. 161-166.

Table 4

Verbal And Non-verbal Data With Illustrative Connotations[3]

Verbal Data	Connotations
Asking questions	Acceptance, interest
Interruptions	Depending on tone and context:
	A. Rejection, no interest
	or
	B. Enthusiastic acceptance

Non-verbal Data	Connotations
Nodding	Agreement, acceptance
Head shaking	Disagreement, rejection
Smiling	Acceptance
Frowning	Rejection
Leaning forward	Interest, acceptance
Looking away	No interest, rejection
Silence	No interest, rejection
Doodling	No interest, rejection

analysis neglecting the non-verbal component of feedback would eliminate 65% of the total available. Similarly, an analysis considering only non-verbal information would discard 35% of the available facts. Implicit in these two statements is the assumption that verbal and non-verbal data are independent. This probably is not tenable, for it is more likely that

[3] From experimental sales skill training materials, The Prudential Insurance Company of America.

verbal and non-verbal communications interact. Ekman, for example, suggests that non-verbal behavior serves the following potential functions:[4]

1. Emphasizing or accenting the content of a verbal message
2. Amplifying part of the content of a verbal message
3. Explaining a verbal silence
4. Providing information related to the content of the verbal message
5. Adding new information not in the content of the verbal message by:
   - A. Substituting for verbalization,
   - B. Contradicting the verbal message, or
   - C. Providing a context to aid in the interpretation of the verbal message.

If one or more of these functions is performed, the verbal data available to the salesman is modified by the non-verbal in face-to-face situations. Isolated analysis of either component would be incomplete. It appears that "verbal and non-verbal codes normally complement each other, neither appearing to be an adequate means of communication by itself."[5]

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[4] Kagan and Krathwohl, op. cit., p. 580.

[5] Barnlund, op. cit., p. 526.

Recognizing that feedback consists of verbal and non-verbal elements, attention is turned to delivering feedback.

Delivering Feedback

Feedback may be sent to research subjects from either an animated or inanimate source. For the purpose of this research, animated methods of sending feedback to the research subject were rejected, since it was not possible to present the test subjects with standard stimuli over time, nor could the expense be justified. Therefore, inanimate sources were considered.

In the behavioral sciences the traditional workhorse in measurement has been the "paper and pencil" test. Normally, the subject is given a question and answer booklet and instructed to mark his responses in the spaces provided. The specific methods for presenting the questions and providing for the subject's answers are innumerable. In one branch of traditional testing literature, non-verbal stimuli - pictures or cartoons - are substituted for the verbal questions. The Thematic Apperception Tests are one example.[6] Whether written words or printed pictures are used, the underlying rationale is that paper and pencil behavior is related to job performance.

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[6] Green and Tull, op. cit., p. 168.

For the present research, cartoons with captions could be constructed to capture part of the verbal and non-verbal stimuli in feedback. This approach could easily be standardized. However, it offers only a crude approximation of the prospect's behavior and may or may not be credible. A film, however, would include the richness of the desired verbal and non-verbal behavior.

In a book entitled Studies In Human Interaction, Kagan and Krathwohl present "A Review Of Literature On Empathy."[7] Attempts to measure empathy fall into two categories: (1) Predictive Tests and (2) Situational Tests.

Predictive Tests are paper and pencil procedures largely following the approach introduced by Dymond. After an exhaustive review of these tests, the authors say in summary:

> "It is clear that individuals' abilities to predict accurately the personality characteristics of others is a difficult and complex phenomenon to investigate, and research which has followed this procedure has not produced a reliable, valid, or operationally consistent means of measuring empathy."[8] (Emphasis added)

Clearly this statement says that the paper and pencil approach has not been fruitful in research similar to that undertaken here.

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[7] Kagan and Krathwohl, op. cit., p. 459.

[8] Ibid., p. 467.

Secondly, there are the situational tests of empathy:

> "These approaches provide some type of real-life or simulated real-life situations involving combinations of visual, auditory, or kinesthetic stimuli which give the subject a standard experience to which he can attempt to respond empathetically."[9] (Emphasis added)

Kagan and Krathwohl have divided the situational tests into two groups. In the first subset are the tests using typescripts or audio stimuli. This older branch contains more studies, but neglects many of the non-verbal dimensions of behavior. This partially accounts for the failure of researchers using this approach to construct a valid and reliable empathy instrument.

In the second subset are tests employing both audio and video stimuli. Although the number of studies employing this "total stimuli approach" is small, at least three have achieved a measure of success.

In 1965 Buchheimer, Goodman, and Sircus reported the development of an empathy test employing audio-visual stimuli. The researchers concluded:

> "Pending further refinement and analysis, this instrument (The Film Test) may be used for counselor selection, the

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[9] Ibid., p. 468.

> evaluation of counseling growth, and as a possible criterion measure for the evaluation of counselor training."[10]

In 1966, Rank, using the total stimuli approach in measuring counselor's interpretations of counselor-client interactions, found "a significant relationship between post-practicum counseling competence and both pre-practicum and post-practicum test scores."[11]

In 1967, Greenberg and Bowes, using audio-visual stimuli, reported isolating a number of judgmental parameters, "explaining more than 50% of the variation" in the clinical judgments of counselors.[12]

Taken together these findings strongly suggest that using the total stimuli approach might be fruitful in measuring a salesman's sensitivity to verbal and non-verbal feedback, since the counselor-counselee dyad is similar to the salesman-prospect dyad.[13]

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10 Arnold Buchheimer and others, Videotapes And Kinescopic Recordings As Situational Tests And Laboratory Exercises In Empathy For The Training Of Counselors (New York: Hunter College Of The City University Of New York, 1965), p. 98.

11 Kagan and Krathwohl, op. cit., p. 472.

12 Ibid., pp. 228-229.

13 A similar approach has also been used to study purchasing behavior. See Theodore Levitt, "Communications and Industrial Selling," Journal of Marketing, Vol. 31 (April, 1967), pp. 15-21.

Indirect support for this approach is also found in the personnel literature. The situational test, for example, has recently gained favor as a measurement device. It has been described as follows:

> "Situations are selected to be typical of those in which the individual's performance is to be predicted . . . (Each) situation is made sufficiently complex that it is very difficult for the persons tested to know which of their reactions are being scored and for what variables. There seems to be much informal evidence (face validity) that the person tested behaves spontaneously and naturally in these situations . . . It is hoped that the naturalness of the situations results in more valid and typical responses than are obtained from other approaches."[14]

Situational tests, used both independently and as a component of an assessment center evaluation, support the concept of placing the salesman in situations similar to those he will encounter in the field.[15]

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[14] J. C. Flanagan, "Some Considerations In the Development of Situational Tests," Personnel Psychology, Vol. 7 (1954), p. 462 as quoted by John M. Greenwood and Walter J. McNamara, "Interrater Reliability In Situational Tests," Journal of Applied Psychology, Vol. 51, No. 2 (1967), p. 101.

[15] Douglas W. Bray and Richard J. Campbell, "Selection Of Salesmen by Means of an Assessment Center," Journal of Applied Psychology, Vol. 52, No. 1 (1968), pp. 36-41.

In a paper entitled "Personality and Ability Factors in Sales Performance," John B. Miner found:

> "The Wechsler Adult Intelligence Scale Arithmetic subtest yielded correlations with criterion measures in the low .30s. The Tomkins-Horn Picture Arrangement Test yielded correlations in the high .50s."[16]

What is important here is that:

1. The Wechsler Test is an oral test and a similar non-oral test (Wesman Numerical) did not predict sales success.[17]

2. The Picture Arrangement Test (PAT) can be considered as a proxy for non-verbal stimuli.

Taken together, these findings suggested the delivery of feedback to subjects in audio-visual form.

Creating The Feedback Or Audio-Visual Stimuli

The question now arises as to how to determine the content of the audio-visual stimuli. Since content includes both verbal and non-verbal dimensions, one special problem must be recognized. For the verbal component, there exists both a vocabulary and a syntax. In other words, there is a verbal language consisting of not only a set of significant symbols,

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16 Miner, op. cit., p. 6.

17 Ibid., p. 11.

but also a meaningful method for their combination.[18] Therefore, it is possible to vary the content of verbal feedback to reflect various degrees of subtlety and favorableness to the sale.[19] Conversely, for the non-verbal component, there exists no vocabulary or syntax. The verbal elements to be included in feedback could be rigorously determined, but the non-verbal elements must be based upon judgment. Fundamentally, the description of verbal communication is within the realm of science, while non-verbal is within that of art, according to Jevon's definition that " . . . science is to know, and art is to do . . ."[20]

Until there exists a non-verbal vocabulary and syntax, what is to be included in feedback is in the final analysis a matter of opinion. With this in mind, an attempt was made to rely on expert judgment in creating the feedback stimuli. The experts were salesmen, branch and regional sales managers,

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18 Berlo, op. cit., p. 173.

19 Stuart Carter Dodd and Thomas R. Gerbrick, "Word Scales for Degrees of Opinion," Language and Speech, Vol. 3 (January-March, 1940), pp. 18-31.

20 Quoted by Weldon J. Taylor, "'Is Marketing a Science?' Revisited," Perspectives in Marketing Theory, Jerome B. Kernan and Montrose S. Sommers eds. (New York: Appleton-Century-Crofts, Inc., 1968), p. 57.

and the staff of the company participating in and supporting this research. At every stage in the development of the stimuli, the experts were asked:

> How realistic and believable is the buyer behavior in the dialogue? In other words, would you as a salesman looking at the buyers think that they are real? Do these men act the way actual buyers might act? If not, what can be done to make it better?

Emphasis was added to the word buyer, since many of the experts initially focused their attention on what they thought a salesman should do rather than on the buyer's feedback behavior.[21]

The specific steps taken in developing the audio-visual stimuli, entitled A Sales Call On The Holt Company, were:

1. A joint decision was made with the participating company's staff to limit the research to salesmen selling accounting and business machines. This type of selling is Creative Ranking No. 6 on McMurry's scale and hence is consistent with the purpose of this research.

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[21] It is interesting to note that sales managers appear to focus the bulk of their attention on the salesman in the buyer-seller dyad rather than on the prospect. Hence, sales management may not be as receptive to change in customer buying behavior as it ought to be, and may be teaching salesmen how to sell rather than how to analyze their customer.

2. The researcher attended the company's sales training schools and became familiar with the types of buyer behavior simulated in class as well as the company's products, policies, and approaches to selling.
3. A procedure for scheduling joint calls with salesmen was set up in the Detroit region. These were made with the objective of observing buyer behavior.
4. Based on the above information, a rough draft of a script depicting buyer-seller behavior was created.
5. This script was reviewed with individual salesmen and then revised.
6. Separate conferences were held with regional and branch managers as well as a second group of salesmen and staff to evaluate the script and generate suggestions for its improvement. It was then revised again.

Thus, the script for audio-visual stimuli was turned into a 35-minute film. According to expert opinion, the audio-visual stimuli represents a realistic sample of prospect behavior.

A Sales Call On The Holt Company was also entered in the Industrial Television Society's National Video Tape Competition

which attracted eighty entries from major corporations. The tape won first place in competition for the most unusual use of the medium and second place in overall competition.

The tape is divided into seventeen segments, arranged in sequence. The test subject views a segment of audio-visual information and is then asked questions related to the concepts of understanding and picking to which the research premises are related. Since the subject views more than one segment and answers identical questions after each block of information, it is possible to gather data at specific points on shifts in selling tactics and strategy, in addition to data on feedback monitoring as the sale progresses. In other words, the test subject has the opportunity to accumulate information during the test to help him develop a strategy.

The division of the audio-visual stimuli into the segments indicated by the headings, "Testing Point No. X," was done with the following ideas in mind. Testing points occur in most cases:

1. At points where it would be logical for the salesman to be the next speaker.
2. At points where a "creative" response is possible. In other words, if the prospect says something which does not dictate a conventional response, the

salesman's reply is not easily predicted. In these cases, a creative or independent reply may be given. Had the previous speaker said, "Good Morning," the salesman would have been limited to a small set of customary greetings.

3. Where the customer's statements, typical of that stage of the sale, might be looked at as opportunities by the highly effective salesman, but which might be regarded as blocks to making the sale by the low effect man.[22]

4. At unequal time intervals ranging from under one minute to over two minutes. By varying the intervals between testing points, it was felt that subjects would be kept alert and participation would be more intense.

Given the nature of the audio-visual stimuli and their segmented content, attention is now turned to the salesman, the research subject.

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[22] Mason Haire, "Projective Techniques In Marketing Research," Journal of Marketing, Vol. 14 (April, 1950), pp. 649-656.

The Research Subjects

The company sponsoring this research trains its U.S. and Canadian salesmen at one location to which all salesmen are brought at various stages in their careers. Within 45 to 60 days after a recruit is hired, or transfers from another department within the company, he comes to the educational center for his first school. After two weeks of intensive training, he returns to the field. At this stage in his development he continues to study, is given a quota, and begins selling.

If he achieves his quota during a specified period of time, he is eligible to attend the second two-week school. Salesmen generally attend this school after they have been in sales from five to six months, although this can vary several months, depending upon the scheduling of schools and the number of salesmen qualifying for a school.

When a salesman leaves the second school, he is again given lessons to complete and sales activity and quota requirements to be met before he will be eligible for the third school. In addition to meeting specific sales and study requirements, a salesman must have spent a minimum of twelve months in sales before attending this school.

In this research, five groups of student salesmen were made available for final testing by the sponsoring company. These groups consisted of two from the first school, two from the second school, and one from the third school. The number of salesmen in each group and the dates the testing was done are shown in Table 5.

Table 5

School, Date, And Number Of Salesmen Tested

School	Date	Number Of Salesmen
First A	2-9-71	21
First B	4-8-71	20
Second A	2-9-71	23
Second B	4-8-71	22
Third	2-25-71	30
Total		116

In the early phases of developing the testing procedures, tests were also run on field salesmen in two different locations in the Midwest and one class of student salesmen. Altogether, 33 subjects participated in pilot testing sessions.

The 116 salesmen-subjects came from the U.S. and Canada. In the U.S. they came from 74 cities in 33 states as well as the District of Columbia. One or more salesmen came from

twelve of the twenty leading population centers.[23] In Canada, one or more salesmen came from six cities in three provinces.

No matter how representative the sample of salesmen may appear, nevertheless, it was not drawn randomly. If one were drawn from among the sponsoring company's sales force, the expense of either administering the test in varied field locations, or bringing the subjects closer to a central location could not be justified.

Since a random sample was not feasible, it must be hoped that the sample used does not contain some unknown biases, and that the margin of doubt remaining can be reduced through replication of the research.

Distinguishing High And Low Effect Salesmen

To determine whether the ability to monitor feedback is related to sales success, measures of effectiveness must be constructed, since the validity of the company's present

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[23] The question can be raised: Are the stimuli as relevant to the salesman serving small and/or rural accounts as the salesman calling on large and/or urban accounts? The stimuli probably reflect an urban bias since the bulk of the experts who advised the researcher were located in major cities. However, at earlier stages in their careers they had all been exposed to rural situations. It is reasonable to assume that the stimuli are relevant for the majority of salesmen working in medium to large sized metropolitan areas.

measures is unknown. For the three categories of salesmen being studied - first, second, and third school - the following types of criterion information were available:

1. Additional Information A: A self report covering the salesman's age, months in sales, sales volume, number of sales, approximate average monthly bonus, and weekly salary (see Appendix C).
2. Salesman Evaluation: An evaluation of a salesman by his immediate manager (see Appendix D).
3. Ranking by school instructors of the salesmen in a given class "according to their potential to be successful salesmen."

Only the Additional Information A form can be used for between group comparisons since the other data are collected on a class basis.

Two main types of sales effectiveness measures are developed from the available information: A Between Schools Index and Within Schools Indices.

In general, the three sales schools represent three milestones as salesmen progress along their career development paths. Accordingly, third school salesmen can be considered high effect, relative to second and first school

salesmen; and second school salesmen, high effect relative to first school salesmen. This ordering is justified statistically by the data in Table 6.

Table 6

Form A Data - Comparison Of School Means

Schools	Age	Months	Volume	Number	Bonus	Salary
Third	25.9	19.4	1,104	17.0	$278	$144.2
Second (A & B)	27.4	11.0	430	5.4	182	143.6
First (A & B)	26.6	3.5	98	2.2	64	141.3
Significance	n.s.	.01	.01	.01	.01	n.s.

Table 6 shows that the three groups of salesmen are not significantly different in age and are paid similar salaries. However, the men differ significantly in the number of months they have been in sales with the company, net sales volume, number of sales, and approximate average monthly bonuses earned. The last three items are the traditional quantitative dimensions of selling performance used by many companies.[24]

The significant differences reported in Table 6 could be caused by many factors unrelated to the salesmen's motivation and ability to sell. These measures reflect neither the qualitative aspects of the buyer-seller relationship nor do they allow for differences in the quality of management a salesman experiences.

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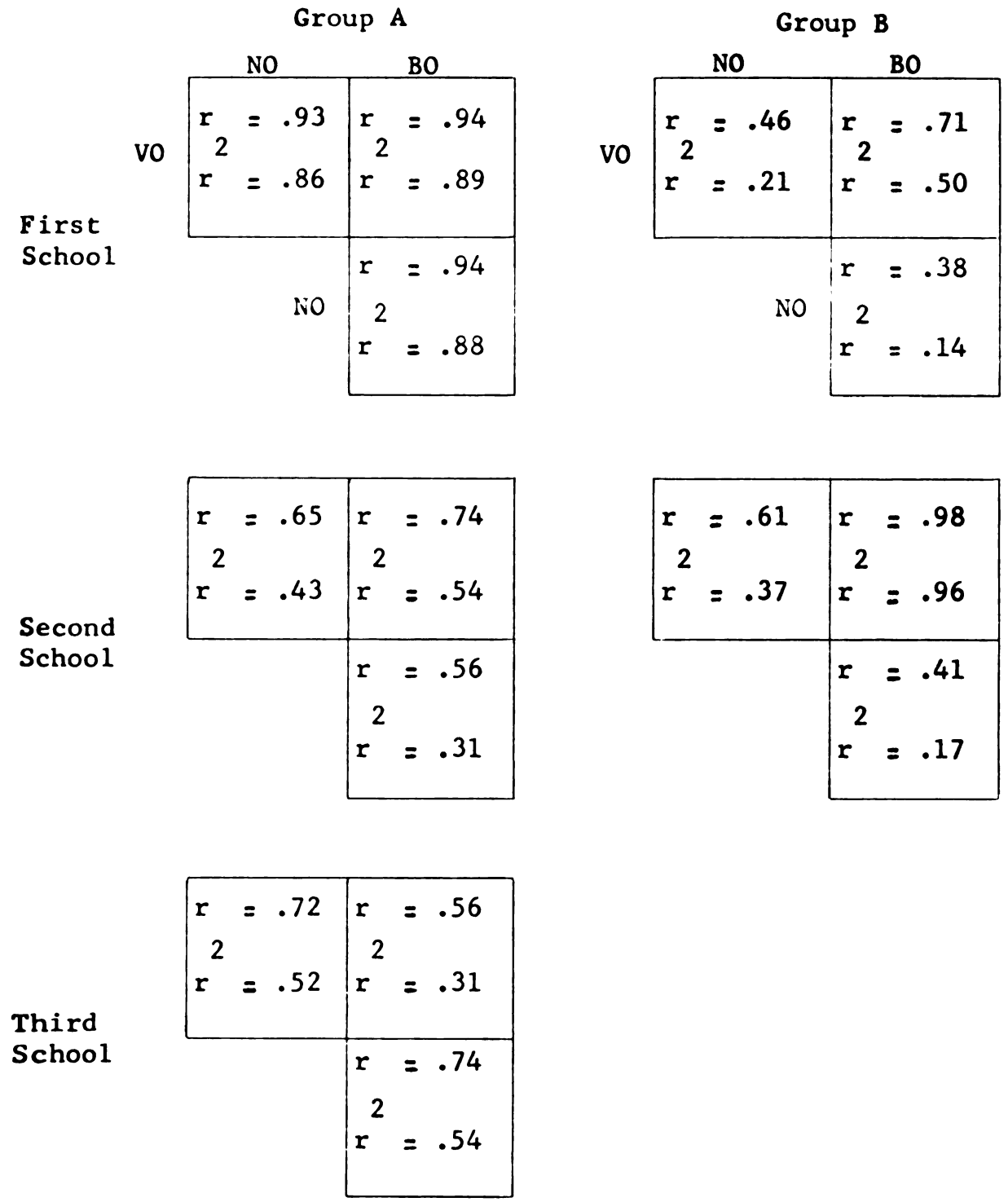
[24] Robert M. Guion, Personnel Testing (New York: McGraw-Hill Book Company, 1965), pp. 428-435.

Recognizing these limitations, the schools, ordered in terms of decreasing sales effectiveness - third, second, first - are used as an index for operationalizing the concepts of high and low effect, since there is currently no other suitable information available for indexing sales performance over time.

Justification of the Between Schools Index developed above is based on significant differences in data collected on the Additional Information A form. The same data can be used to create Within Schools Indices for operationalizing high and low effect salesmen.

Even though each of the schools is unique to a degree, two types of Within Schools Indices are constructed. One is based on three of the traditional dimensions of sales performance: Bonus (BO); Sales Volume (VO); and Number of Sales (NO).

Within each of the five classes of salesmen tested, significant intercorrelations are found among bonus, sales volume and number of sales. These are shown in Figure 3. These relationships are expected. When a sale is made, it normally results in increases in the number and volume of sales, as well as bonus - usually over a certain minimum. The exact interrelationships, however, are extremely complicated.



Note: All rs are significant at .05

Figure 3

Correlation Between The Traditional Dimensions Of Sales By School And Group

A salesman can produce a given sales volume by selling one unit of an expensive product or many units of an inexpensive product. Depending upon a number of factors in the sponsoring company's compensation formula, which cannot be revealed, the salesman would earn differing amounts.

The salesman's earnings could also vary depending upon with which sales office he is associated. It is possible for a salesman to make a sale and actually lose money. This would result in increases in his volume and number tallies, and a reduction in his bonus.

Although the validity of the relationship between overall sales performance and bonus, volume, and number of sales is unknown, these are the only quantitative measures presently available. Therefore, one set of indices to determine high and low effect will be based on bonus, number of sales, and sales volume.

In determining high effect, two rules are applied in each of the three schools. Salesmen not qualifying under either rule are low effect.

In sorting salesmen into the high or low effect categories, Rule One classifies salesmen as high effect who are earning above median bonus, making more than the median number of sales, and generating greater than the median sales volume for

their "school." The need for Rule Two results from the fact that the relationship between bonus, volume, and number of sales is extremely complicated. Salesmen who qualify under Rule Two may or may not be achieving a measure of success as great as those who qualify under Rule One. Rule Two classifies as high effect salesmen, those who perform above the median on two out of three of the success indicators. For first schools this is also subject to a minimum to prevent inclusion of marginal performers, who might qualify on a technical basis. The effect of these rules is to divide school salesmen into approximately equal groups of high and low effect salesmen.

Following are the specific rules for operationalizing the concepts of high and low effect within schools:

First School:

A salesman is classified as high effect if:

1. He earns a bonus and has made one or more sales and accumulated one or more points, or
2. He reports a number greater than zero in two out of three among bonus, number of sales, and volume, and the sum of entries in the number of sales and volume categories is greater than or equal to ten.

If a salesman does not satisfy one of these two rules, he is classified as low effect.

Second and Third School:

A salesman is classified as high effect if:

1. He ranks above the median for his group on bonus and volume and number of sales.
2. He ranks above the median for his group on two out of three among bonus, volume, and number of sales.

If a salesman does not meet one of these rules, he is classified as low effect.

Another set of rules for determining high and low effect would undoubtedly result in different classifications for at least some salesmen. However, it has been shown that one rational index for weighting the dimensions of job performance is approximately equivalent to any other, given the same set of factors.[25]

At best, the Within Schools Index just discussed reflects three quantitative dimensions of sales performance. Effective sales performance, however, is not measured by quantitative indices alone, since these do not include the elusive qualitative dimensions of selling.

In this research, two types of qualitative information are available: Salesmen evaluations and Instructor's rankings.

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[25] There are a number of empirical demonstrations of this in the psychological literature.

Even though sales managers were asked to evaluate their men compared to all the others they have managed with similar tenure, experience, and training, it is likely that the managers gave different evaluations for similar performance, since they had no common basis for rating the men. With one exception, the ratings are not correlated significantly with any other of the available measures, including Instructors' rankings. Without uniform training for raters, it is probably unrealistic to expect to receive useful evaluations. Consequently, these ratings were not used in operationalizing the concepts of high and low effect.

The chief differences between the Managerial evaluations and Instructors' rankings of salesmen is that in the first instance, the salesmen are rated by different men, while in the second, the subjects are evaluated by the same judges.

The Instructor Ranks are used as a Within Schools Index of the qualitative component of sales performance since they appear to be the better of the two measures available. The measures are not used together since they are not intercorrelated and tap different aspects of sales performance.

In collecting this information, Instructors are requested to rank the men "according to their potential to be successful salesmen." Since schools are two weeks long and during that

period the contact between salesmen and instructors is very high, instructors feel that they have ample opportunity to form reasonably accurate impressions of most salesmen.

The ranking of the salesmen is used primarily as a device to ensure careful comparison between individual salesmen. In determining high and low effect, salesmen ranked in the top half of their school are considered high effect and those in the bottom half, low effect.

While the measure is probably better than the managerial evaluations, it is still far from ideal since it represents only one qualitative observation per subject.

Recording Subjects' Responses

Subjects' responses to the test stimuli can be recorded in a number of ways, ranging from oral to written responses. Researchers using stimuli similar to those employed here have had respondents: check sets of adjective-opposite scales, check rating scales, list statements describing what has occurred, "respond into a tape recorder as if they were an actual counselor," and select one of five ready made responses.[26]

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[26] Kagan and Krathwohl, op. cit., pp. 470-472.

To have salesmen respond to the verbal and non-verbal feedback, just as they do in the field, would be the most realistic measurement procedure. The salesman's verbal responses could be picked up in a tape recorder and non-verbal behavior filmed. This could be called "total response reporting" to accompany the total stimuli approach.

In the present research, however, it was not feasible to use the total response report since recording and filming respondents' behavior would be prohibitively expensive. Subjects were asked to respond to questions in a research booklet and the question format is reproduced in Appendix B. The booklet contains a combination of open ended, rating scales, and yes/no questions.

To formulate the research questions, discussions were held with salesmen, instructors, and the sponsoring company's Marketing Education staff. These meetings produced a series of changes in wording and format, and after each revision the research booklet was pilot tested on field salesmen.

Of the nine questions used, five are open ended; two are scales; and two, yes/no. The open ended questions: #1, 3, 4, 6, and 7 - provide subjects with opportunities to report the information they have consciously available for decision making, as well as what they will or will not do and say next.

Questions #2 and 5 give salesmen a convenient means of summarizing how they rate the last encounter and what they will say and do next. Questions #8 and 9 are aimed at determining whether or not the salesman has either of two types of strategy in mind as he conducts the sales interview. Whether or not the salesman actually has either or both strategies in mind is left to the respondent's integrity. This results from the procedure of testing salesmen in groups.

In pilot tests it was discovered that different salesmen formulate their plans at different times, and feel cheated if they are not given time to write down their plans in toto. With a group of between 20 and 30 subjects, it is impossible to accommodate individual subject's needs for more or less time at any given test point. Therefore, the yes/no question format is used.

To determine whether or not the responses of high and low effect salesmen are significantly different, statistical analyses for detecting differences between means, ratios between variances, and correlations were employed.

After the open ended questions were coded, Hypotheses 1-1, 1-2, and 1-3 were tested using data from Question One with one-way Analysis of Variance or a t test, depending on the number of sample means being compared. However, Hypothesis 1-4 related to the data in Question Two is tested with an F test.

Hypotheses 1-5 and 1-6 are tested using data in Questions Three and Four and Question Six respectively. The methods are ANOVA or t tests. The same methods are used in testing Hypothesis 1-7, related to the frequency tactical change is checked in Question Five, and Hypothesis 1-8 which is linked with Questions Eight and Nine.

Hypothesis 1-9 is tested with F using the data in Question Five, while Hypothesis 1-10 relating subjects' responses on the scales in Questions Two and Five is tested with r.

The statistics employed in testing Hypotheses 2-1 through 2-10 are similar to those used to test Hypotheses 1-1 through 1-10, the only difference being that comparisons are made over time.

Before applying the above tests, however, the data reported in the open ended questions were coded according to the rules in Appendix E. The function of the Rules For Coding is to convert the salesman's raw responses into an Idea Score, and to determine whether the idea was triggered by verbal or non-verbal stimuli. In deciding to use the Idea Score, analyses were conducted using a sum of words

score. This proved to be unworkable as a proxy for cues reported since different salesmen can express similar ideas using very different numbers of words.

In addition, other approaches to coding were tried experimentally. The Idea Score, however, was adopted since it purports to index the number of ideas a salesman has available for decision making and to reflect the number of things he intends to do and say. Moreover, it is relatively simple to use and intercoder reliability checks indicated from 75% to 85% agreement on classifications.

While it was possible to consistently distinguish verbal and non-verbal dimensions in coding the open ended question, it was not possible to reliably determine tactical and strategic content.

The Testing Procedures And Facilities

In testing the five groups of salesmen, identical procedures were followed as nearly as possible. First, salesmen entered the testing facility and chose a seat near a T.V. monitor. Xeroxed copies of a brief one-page resume about the researcher were passed out (see Appendix F). The purpose of this introductory information was to reassure the salesmen that the researcher was an impartial outsider who would not report any individual performances to members of the company's

management. This fact was reaffirmed several times in the researcher's initial remarks. In this type of study, it was considered crucial to hold the subjects' responses in strict confidence in order to obtain their full cooperation.

A member of the company's sales school introduced the researcher, whose remarks followed. Research booklets were then passed out (see Appendix B). A mock copy of the question format was reproduced in the front of the booklet, as well as on flip charts, so that the salesmen might be thoroughly familiar with the procedures to be followed.

The audio-visual tape, once begun, ran until Test Point No. 1 appeared on the screen. At each test point, the tape was stopped for three minutes to give the respondents time to answer the nine questions. This procedure was repeated for each of the test points. The form entitled Additional Information A was then filled out by the subjects (see Appendix C).

In general, the respondents were very helpful. The overwhelming majority believed that the film depicted believable individual behavior and they greatly enjoyed participating in the research.

The testing altogether takes about two hours: 15 to 20 minutes for the introduction, 35 minutes for the audio-visual stimuli, approximately 55 minutes to fill out questions at the

test points and the Additional Information A form, and 5 to 10 minutes for subjects to enter and leave the test facility.

Although salesmen were tested at various locations, basically two different types of seating arrangements were used and are shown in Figure 4. All first and second school salesmen were run under conditions similar to Arrangement A while the third level salesmen were tested in Arrangement B. Ideally, one facility should be used for all testing. However, this was not practical at the time this research was conducted since the company was in the process of relocating its sales training staffs, equipment, and facilities.

Arrangement A is preferable for two reasons: First, the long tables reduce the interaction between the six subjects viewing each monitor. In contrast, the seating of subjects in Arrangement B fosters extraneous interactions between subjects. Second, as the number of subjects viewing a monitor increases, the feeling of intimacy is reduced.

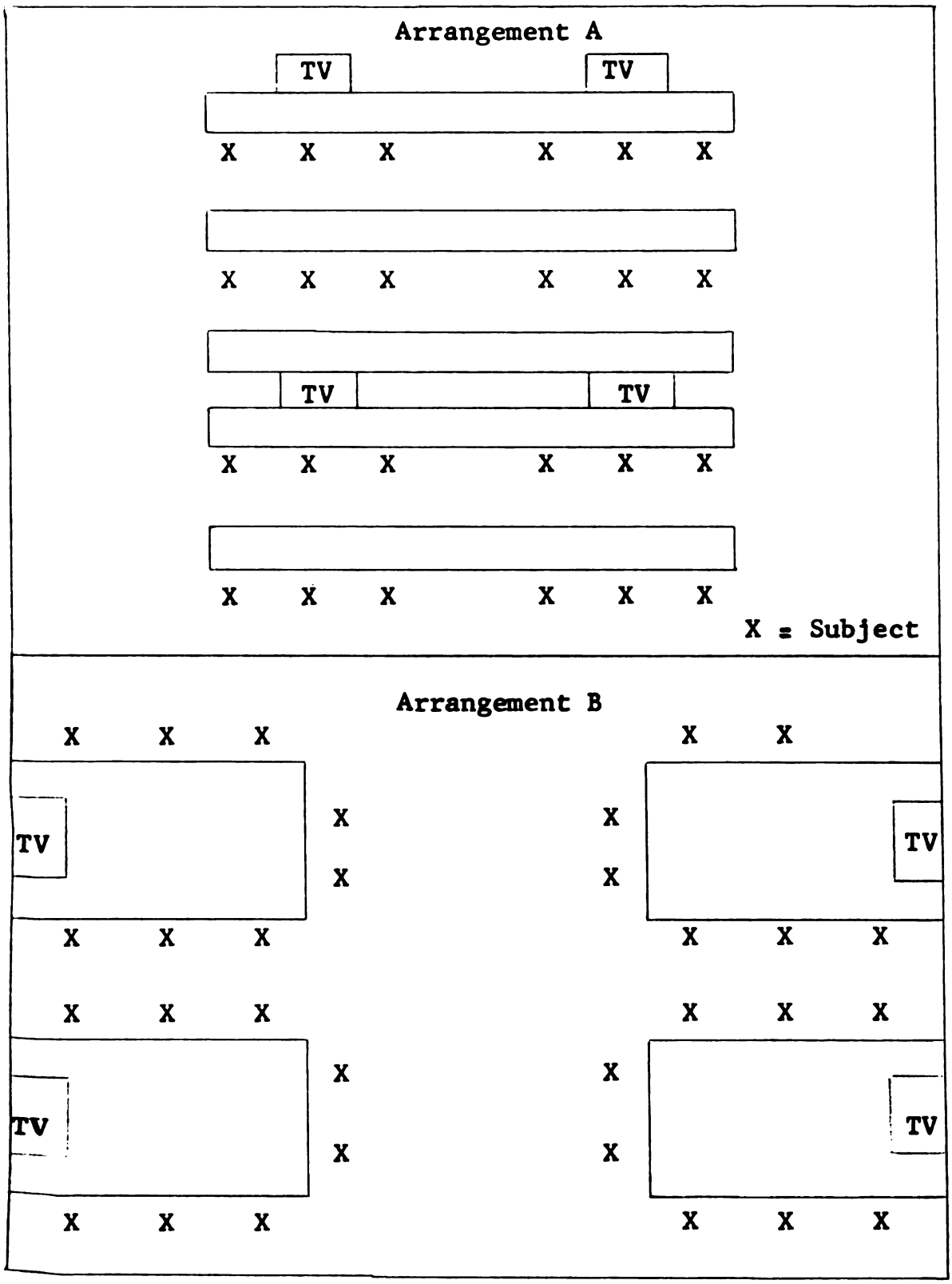

Figure 4

Seating Arrangements

CHAPTER IV

RESEARCH PREMISES, HYPOTHESES, AND FINDINGS

Introduction

The discussion in Chapter IV will focus on how high and low effect salesmen differ in their ability both to monitor feedback and to shift from tactical to strategic thinking. Before pursuing the discussion, it may be helpful to restate the two premises underlying this research. Changes in the subjects' responses during the sales call are anticipated under Premise 2-0 while none are assumed under Premise 1-0.[1]

1-0 The effectiveness of a salesman's communication in the face-to-face situation is dependent upon his ability to monitor feedback.

2-0 The high effect salesman demonstrates a more pronounced shift from tactical to strategic thinking during the encounter than does the low effect salesman.

High and low effect, it will be recalled, are defined in terms of a Between Schools Index and two Within Schools Indices.

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[1] For a complete statement of premises and hypotheses, see pages 18 to 22.

According to the Between Schools Index, School Three is high effect relative to both School Two and School One while School Two is high effect relative to School One. Alternatively, the Quantitative Within Schools Index divides each class of salesmen into high and low effect on the basis of their sales volume, number of sales, and bonuses earned, while the Qualitative Within Schools Index is based on Instructors' rankings.

When high and low effect are determined by either of the Within Schools Indices, all but two of the two hundred findings are not significant. It may be that a lack of variance in the sample distributions contributes to the absence of significance. There is inferential evidence of this inasmuch as roughly half of the hypotheses are supported when the Between Schools Index is used to determine high and low effect.

Before reviewing the research hypotheses, data, and results in detail, it may assist the reader if several issues influencing the findings are considered first:

1. Truncation of sample distributions - The distributions are truncated by three factors. First, candidates for sales jobs who do not possess some potential for selling are not hired; second, those men who are hired but who do not qualify for the sales schools drop out of the sample and are

not available for testing; and third, the ability to "monitor" may be only partially learnable. Therefore, the more successful a company is in attracting salesmen who already possess this ability, the less variation will be observed within and between schools.

Within classes, a number of factors contribute to the reduction of variation. All of the salesmen attending a given class have satisfied the prerequisites for attendance discussed in Chapter III. This means that distribution of salesmen is truncated since none of the men will have achieved less than the standards of performance set by the company, and there is no feasible way to round out the distributions by including those who attempted but failed to achieve these standards. In addition, it appears that the standards are not easy to achieve and a large number of salesmen tend to cluster in a narrow band just above them. While there are some who are significantly above the standards, the number of these is not great and they tend to have atypical backgrounds. Consequently, the bulk of each class is composed of salesmen who are roughly similar in number of sales, sales volume, and bonuses earned.

In the case of the Qualitative Index, the rankings appear to have been based largely on volume, number of sales, and

bonus. This is revealed in significant correlation coefficients between the Qualitative and Quantitative Indices. Hence, the within schools comparisons made using the Qualitative Index are subject to the same lack of variance discussed in connection with the Quantitative Index.

2. School Three's unpredicted behavior - The responses of School Three salesmen tend to be in the unpredicted direction when open ended questions are answered. (Where scales are used, however, the responses tend to be in the predicted direction.) On the one hand, the unpredicted behavior may be caused by a lack of motivation to respond to the open ended questions with more than a minimal number of ideas. This might be related to one or more of the following: School Three was from fifty to one hundred percent larger than any of the other groups tested. They were the only group tested in seating arrangement B, and School Three, according to instructors who taught the class, was "somehow" different from the typical third level class. On the other hand, their unpredicted behavior might be related to the salesmen having internalized many of their selling behaviors and having become almost unconscious of performing many of them.

At the present time, it is impossible to determine which interpretation is correct without testing additional School Three salesmen.

Since there are virtually no significant results when high and low effect are determined by either of the Within Schools Indices, only the findings for the Between Schools Index are reported. For this criterion, the evidence supporting (or not supporting) the concepts of understanding, picking, and monitoring is summarized for both of the major guiding premises. The hypotheses associated with Premise 1-0 are considered first.

Hypothesis 1-1 - Findings

Hypothesis 1-1 states that high effect salesmen will report more cues than will low effect salesmen. One way to test this hypothesis is to look for differences in mean Idea Scores between the three schools over all test points. These data are reported in Table 7. Since the only comparison in the predicted direction is not significant, Hypothesis 1-1 is not supported by these data.

Table 7

Comparison Of Mean Total Idea Scores Between First, Second, And Third Schools Over All Test Points

Comparison	Direction	Significance
3-2	n.p.[a]	.01
2-1	p.[b]	n.s.
3-1	n.p.	n.s.

a - n.p. stands for not predicted
b - p. stands for predicted
For the derived statistics see Appendix G.

In addition, analyses can be made at each test point. The results of these, shown in Table 8, essentially support the same conclusions about Hypothesis 1-1 as the data in Table 7.

In Table 8, the bulk of the comparisons between School Three and the other two schools are not in the predicted direction and a third of these are significant. It is reasonable to attribute this to School Three's atypical behavior discussed above. Conversely, the comparisons between Schools One and Two are largely in the predicted direction, although only four are significant. Obviously, caution must be exercised in interpreting these results, since sampling error alone will yield a number of significant findings.

Table 8

Comparison Of Mean Total Idea Scores Between First, Second, And Third Schools By Test Point

Test Point	Comparison	Direction	Significance
	3-2	p.	.05
# 2	2-1	n.p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	n.s.
# 3	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	.05
# 4	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	n.s.
# 5	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	p.	n.s.
# 6	2-1	p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	n.s.
# 7	2-1	n.p.	n.s.
	3-1	n.p.	.05
	3-2	n.p.	.01
# 8	2-1	n.p.	n.s.
	3-1	n.p.	.01
	3-2	n.p.	.05
# 9	2-1	p.	n.s.
	3-1	n.p.	.05
	3-2	n.p.	n.s.
#10	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	.05
#11	2-1	p.	n.s.
	3-1	n.p.	.05
	3-2	n.p.	n.s.
#12	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	.05
#13	2-1	p.	.01
	3-1	p.	n.s.

Table 8 (Continued)

Test Point	Comparison	Direction	Significance
	3-2	p.	n.s.
#14	2-1	p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	n.s.
#15	2-1	p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	.01
#16	2-1	p.	.01
	3-1	n.p.	n.s.
	3-2	n.p.	.05
#17	2-1	p.	.01
	3-1	p.	n.s.

For the derived statistics see Appendix G.

Rather than using aggregates of the two samples of first and two samples of second school salesmen in the analysis, comparisons can be made between groups tested under conditions differing only in the time of day. In two cases, it is possible to make this comparison and the results, shown in Table 9, are mixed. In the comparison of class 2A and class 1A, Hypothesis 1-1 is not supported, while in the comparison of class 2B and class 1B the hypothesis is supported.

In summary, the data show that comparisons involving School Three are not in the predicted direction. When aggregates consisting of first and second level classes are compared, the data are in the predicted direction, but not

significant. Comparison of single classes tested on the same day, however, does provide limited support for Hypothesis 1-1.

Table 9

Comparison Of Mean Total Idea Scores Between First And Second School Classes Tested On The Same Day And Over All Test Points

Comparison	Direction	Significance
2A-1A	n.p.	n.s.
2B-1B	p.	.001

For the derived statistics see Appendix G.

Two questions arise, then, which would require further testing to resolve: Is the Third School group tested atypical in some important way? Is Hypothesis 1-1 supported by comparisons of other first and second level schools?

Hypothesis 1-2 - Findings

Hypothesis 1-2 states that high effect salesmen will report more verbal cues than will low effect salesmen. The evidence reported in Table 10 does not support this hypothesis, since none of the means are in the predicted direction and all differences are insignificant. If classes tested under identical conditions are compared, the results are also inconclusive, since findings in both the predicted and not predicted

directions are significant, as shown in Table 11. Based on the present evidence, Hypothesis 1-2 is not supported.

Table 10

Comparison Of Mean Verbal Idea Scores Between First, Second, and Third Schools Over All Test Points

Comparison	Direction	Significance
3-2	n.p.	n.s.
2-1	n.p.	n.s.
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

Table 11

Comparison Of Mean Verbal Idea Scores Between First And Second School Classes Tested On The Same Day And Over All Test Points

Comparison	Direction	Significance
2A-1A	n.p.	.01
2B-1B	p.	.05

For the derived statistics see Appendix G.

Hypothesis 1-3 - Findings

Hypothesis 1-3 states that high effect salesmen will report more non-verbal cues than will low effect salesmen. In Table 12, two comparisons involving the third school are not

in the predicted direction and one is significant, while the comparison of the first and second schools is both in the predicted direction and significant.

Table 12

Comparison Of Mean Non-verbal Idea Scores Between First, Second, And Third Level Schools Over All Test Points

Comparison	Direction	Significance
3-2	n.p.	.01
2-1	p.	.01
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

If groups tested on the same day are compared, Hypothesis 1-3 is supported, as the evidence in Table 13 shows.

Table 13

Comparison Of Mean Non-verbal Idea Scores Between First And Second Schools Tested On The Same Day Across All Test Points

Comparison	Direction	Significance
2A-1A	p.	.01
2B-1B	p.	.05

For the derived statistics see Appendix G.

Hypothesis 1-3 is not supported by comparisons when the third school is included. However, both on a grouped and class-by-class basis, comparisons of second and first schools support the hypothesis.

Hypothesis 1-4 - Findings

Hypothesis 1-4 states that high effect salesmen will report more consistent encounter ratings than low effect salesmen. One way to reflect consistency is to assume responses are independent and to aggregate school variances.[2] When encounter variances are summed over all test points for each school, the comparisons between School Three and Schools Two and One are in the direction predicted and significant, while the comparison of Schools One and Two is neither in the predicted direction nor significant, as shown in Table 14.

Table 14

Comparison Of Encounter Variances Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	p.	.05
2-1	n.p.	n.s.
3-1	p.	.05

For the derived statistics see Appendix G.

[2] Quinn McNemar, Psychological Statistics (New York: John Wiley and Sons, Inc., 1967), pp. 129-130.

Since the data to test Hypothesis 1-4 are collected with rating scales, results are not subject to the "Quantity" problem mentioned earlier in connection with the third school. The evidence supports the hypothesis that high effect salesmen will report more consistent encounter ratings than will low effect salesmen.

Summary Of Evidence On The Concept Of Understanding

The high effect salesmen report more non-verbal cues and more consistent encounter ratings than the low effect salesmen, and there is provisional support for the idea that they report more verbal and non-verbal cues. However, the hypotheses about verbal cues are not supported. It may be that the ability to interpret verbal feedback is not significantly different in high and low effect salesmen. In contrast, the data indicate the high effect man is distinguished from the low effect man by his ability to understand the non-verbal component of feedback and rate the favorability of encounters to the sale. These findings provide support for the concept of understanding.

Next, the hypotheses and findings related to the concept of picking are reviewed.

Hypothesis 1-5 - Findings

Hypothesis 1-5 states that high effect salesmen will report better developed responses. The data in Table 15 do not support this hypothesis. Again, the comparisons between School Three and the other schools are not in the predicted direction, while the comparison of the second and first schools is in the predicted direction. However, none of the results is significant.

Table 15

Comparison Of Mean Response Scores Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	n.p.	n.s.
2-1	p.	n.s.
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

The measure of "better developed," it will be recalled, is related to the number of Idea Units a subject reports. This measure was selected because it is stable and efficient in use. However, it may be that qualitative dimensions of the responses such as the interrelationships between ideas in a response or the relevance of the ideas to the situation should be taken into account. Of course, the inclusion of

the additional judgments required to tap the qualitative dimensions possibly would make the coding of the data less exact.

Hypothesis 1-6 - Findings

Hypothesis 1-6 states that more effective salesmen will report more responses to be avoided than will less effective salesmen. The results reported in Table 16, however, do not support this statement.

Table 16

Comparison Of Mean Scores Of Responses To Be Avoided Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	n.p.	n.s.
2-1	p.	n.s.
3-1	p.	n.s.

For the derived statistics see Appendix G.

One reason for the lack of significant findings may be a subtle bias in the research instrument. Simply asking the question: "What will you avoid doing or saying next?" provides a place for subjects to report what they wish to avoid, but it may also trigger responses from subjects who are normally unconcerned with avoidance. Therefore, the low effect salesmen may have inflated scores.

Hypothesis 1-7 - Findings

Hypothesis 1-7 states that high effect salesmen will report more tactical changes than low effect salesmen during the sales call. The results in Table 17 show that second school salesmen report significantly more tactical adjustments than first school salesmen, supporting Hypothesis 1-7.

Table 17

Comparison Of The Mean Number Of Tactical Changes Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	n.p.	n.s.
2-1	p.	.05
3-1	p.	n.s.

For the derived statistics see Appendix G.

Hypothesis 1-8 - Findings

In testing Hypothesis 1-8, two types of strategy were considered. Strategy-1 is related to any one of five basic steps in the sponsoring company's sales process, while Strategy-2 involves the entire sale. It was necessary to make this distinction in light of preliminary field work, since salesmen tend to think about strategy either narrowly or broadly, and do not see strategy as evolving during the sales call. Only rarely do salesmen think in terms of both Strategy-1 and Strategy-2. In Hypothesis 1-8, the high

effect salesman is hypothesized to report more strategic thinking than the low effect salesman. This is not supported for Strategy-1, as is shown in Table 18. The fact that all of the means are not in the predicted direction may suggest that the use of the Yes/No type question is not appropriate here.

Table 18

Comparison Of Mean Strategy-1 Scores Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	n.p.	n.s.
2-1	n.p.	n.s.
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

On the other hand, it may mean that the less effective salesman decides upon a course of action very early in the sale, perhaps prematurely, since it has been shown that he makes fewer tactical adjustments than the high effect salesman.

The evidence on Strategy-2 reported in Table 19 is similar to that just considered for Strategy-1. Hypothesis 1-8 is not supported by the evidence on either Strategy-1 or Strategy-2.

Table 19

Comparison Of Mean Strategy-2 Scores Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	p.	n.s.
2-1	n.p.	n.s.
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

Hypothesis 1-9 - Findings

Hypothesis 1-9 states that high effect salesmen will report more consistent response ratings than low effect salesmen. Comparisons of school variances summarized in Table 20 do not directly support this hypothesis since significant findings were found in both the predicted and not predicted directions.

Table 20

Comparison Of Response Variances Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	p.	.05
2-1	n.p.	.01
3-1	n.p.	n.s.

For the derived statistics see Appendix G.

If comparisons are made on a test point by test point basis, instead of an overall basis, similar conclusions follow. Five results are in the predicted and five not in the predicted direction. (See Tables 21 and 22.) To some extent, these data cast doubt upon Hypothesis 1-9.

While it still may be true that high effect salesmen report more consistent response ratings, it may also be true that there is more than one focus around which the responses of high effect salesmen cluster. If this is the case, the responses of high effect salesmen may cluster around two or more families of strategies, any one of which could lead to a sale. Then variances would be higher for high effect than low effect salesmen.

Table 21

Overview Of Findings In Table 22

	Number In Direction		Number Significant	
Comparison	Predicted	Not Predicted	Predicted	Not Predicted
3-2	8	8	3	2
2-1	4	12	0	3
3-1	7	9	2	0

Summary Of Evidence On The Concept Of Picking

Among the hypotheses associated with the concept of picking, only Hypothesis 1-7, which states high effect salesmen will report more tactical changes than will low

Table 22

Comparison Of Response Variances Between First, Second, And Third Schools By Test Point

Test Point	Comparison	Direction	Significance
	3-2	p.	n.s.
# 2	2-1	p.	n.s.
	3-1	p.	n.s.
	3-2	p.	n.s.
# 3	2-1	n.p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	n.s.
# 4	2-1	p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	n.s.
# 5	2-1	n.p.	n.s.
	3-1	n.p.	n.s.
	3-2	p.	.01
# 6	2-1	n.p.	.01
	3-1	p.	n.s.
	3-2	p.	n.s.
# 7	2-1	n.p.	n.s.
	3-1	p.	n.s.
	3-2	n.p.	.05
# 8	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	p.	.01
# 9	2-1	n.p.	n.s.
	3-1	p.	.05
	3-2	n.p.	.05
#10	2-1	p.	n.s.
	3-1	n.p.	n.s.
	3-2	p.	.01
#11	2-1	n.p.	.05
	3-1	p.	.01
	3-2	p.	n.s.
#12	2-1	n.p.	n.s.
	3-1	n.p.	n.s.
	3-2	p.	n.s.
#13	2-1	n.p.	.05
	3-1	n.p.	n.s.

Table 22 (Continued)

Test Point	Comparison	Direction	Significance
	3-2	n.p.	n.s.
#14	2-1	n.p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	n.s.
#15	2-1	n.p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	n.s.
#16	2-1	n.p.	n.s.
	3-1	n.p.	n.s.
	3-2	n.p.	n.s.
#17	2-1	n.p.	n.s.
	3-1	n.p.	n.s.

For the derived statistics see Appendix G.

effect salesmen is supported by the findings. In a comparison of first and second school salesmen, the latter were found to report more tactical changes. Apparently, the high effect salesman makes a greater effort to use the appropriate tactics. It may also be that the more effective salesmen are less "closed minded," more able to adjust to the changing requirements of the situation, or that they have fewer preconceived notions about the prospect or the sales call.[3]

Attention is now turned to Hypothesis 1-10 linking the concepts of <u>understanding</u> and <u>picking</u>.

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[3] Milton Rokeach, for example, has shown that open-minded subjects are better problem solvers than closed-minded subjects of equal intellectual ability.

Hypothesis 1-10 - Findings

Hypothesis 1-10 states that high effect salesmen will demonstrate greater agreement between their encounter ratings and their response ratings than will low effect salesmen.

To measure agreement between encounter ratings and response ratings a correlation coefficient is calculated between responses to questions No. 2 and No. 5 (see Appendix B) for every salesman in each school over all test points. These coefficients are then averaged within schools. To determine whether or not differences between school r's are significant, the r's are converted into z's, using the Fisher transformation; a standard error of the difference is calculated; and the ratio of the difference to its standard error handled in the usual manner.[4] The r's are shown in Table 23.

Table 23

Correlation Coefficients Between Salesmen's Responses To Questions No. 2 and No. 5 By School

School	r Between Questions No. 2 And No. 5
1	.09
2	.32
3	.37

[4] McNemar, op. cit., p. 140.

When the above procedure is followed, Hypothesis 1-10 is supported. As shown in Table 24, each of the comparisons is in the predicted direction and two of these are statistically significant.

Table 24

Comparison Of Aggregate Correlation Coefficients Between First, Second, And Third Schools Across All Test Points

Comparison	Direction	Significance
3-2	p.	n.s.
2-1	p.	.01
3-1	p.	.01

For the derived statistics see Appendix G and Table 23.

The data indicate that high effect salesmen are more adept at picking responses which correspond to their understanding of each situation in the sales call than are low effect salesmen.

Summary Of Evidence On Monitoring Feedback

Findings support three out of the four hypotheses involving the concept of understanding, one out of the five hypotheses related to picking, and the hypothesis linking understanding and picking, as shown in Table 25.

Table 25

Premise 1-0; Summary Of Significance Where High And Low Effect Are Determined By The Between Schools Index

Hypothesis	Cue Words[a]	Significance
1-1	"cues"	Supported
1-2	"verbal cues"	Not Supported
1-3	"non-verbal cues"	Supported
1-4	"consistent ratings"	Supported
1-5	"better developed"	Not Supported
1-6	"avoided"	Not Supported
1-7	"tactical changes"	Supported
1-8	"strategic thinking"	Not Supported
1-9	"consistent ratings"	Not Supported
1-10	"between ratings"	Supported

a - For a complete statement of premises and hypotheses, see pages 18 to 22.

Taken together, these findings suggest that high effect salesmen are better than low effect salesmen at monitoring feedback. Of course, if more of the hypotheses concerning picking had been supported, the dimensions of monitoring involving better developed responses, responses to be avoided, strategic thinking, and consistency of response ratings might be less ambiguous. Nevertheless, the bulk of the findings are consistent with Premise 1-0. If this inference is found in replications of this research, the salesman's ability to monitor feedback determines the effectiveness of his communication in the face-to-face situation.

Attention is now turned from Premise 1-0 to Premise 2-0 which states: The high effect salesmen will demonstrate a more pronounced shift from tactical to strategic thinking during the sales call than will the low effect salesmen. The findings relevant to this premise and the related hypotheses will be discussed next.

Hypothesis 2-1 - Findings

Hypothesis 2-1 states that high effect salesmen will report more cues as the sales call unfolds than will low effect salesmen. In absolute terms, this hypothesis is not supported, since the total number of cues reflected in Idea Scores of first, second, and third school salesmen declines between the first eight and the last eight test points. This falloff in the number of absolute responses is not atypical. Similar respondent behavior is encountered by clinical psychologists when they administer projective tests and by other researchers analyzing "diary" type data.

The scores of second and third school respondents, however, fall less rapidly than those of first school salesmen and the data in Table 26 indicates that Hypothesis 2-1 is supported in relative terms when Schools One and Two are compared.

Table 26

Significance Of Decline In
Mean Idea Scores Over Time By School

School	Mean Idea Scores For The First 8 Test Points	Mean Idea Scores For The Last 8 Test Points	Significance Of Decline
1	19.6	15.8	.01
2	20.4	18.4	n.s.
3	17.3	15.3	.05

For the derived statistics see Appendix G.

While the rate of decline in mean Idea Scores is about the same for both the second and third schools, the means for respondents in the third school lie below the means for both first and second school salesmen. This reflects the tendency mentioned earlier of the third school respondents to perform in unpredicted directions where open ended questions are used.

However, since the rate of decline between means for School Two is less rapid than the rate for School One, high effect salesmen report relatively more cues during the sales call than do low effect salesmen.

The same result emerges if means are compared within both the first and last halves of the sales call, as indicated in Table 27. While the comparison of mean scores for Schools One and Two is in the predicted direction in

Time-I, they are not significantly different. In Time-II, however, the means are significantly different and in the predicted direction, indicating support for Hypothesis 2-1.

Table 27

Comparison Of Mean Idea Scores Between First, Second, And Third Schools Over Time

Comparison	Direction	Time	Significance
3-2	n.p.	I	n.s.
2-1	p.	I	n.s.
3-1	n.p.	I	n.s.
3-2	n.p.	II	.05
2-1	p.	II	.05
3-1	n.p.	II	n.s.

For the derived statistics see Appendix G.

Hypothesis 2-2 - Findings

Hypothesis 2-2 states that high effect salesmen will report more non-verbal cues as the encounter unfolds. If the means of the non-verbal cues reported by each school in the first half of the sales call are compared to the means reported in the second half of the call, the number of non-verbal cues reported by second and third school salesmen increases significantly while the increase in non-verbal cues reported by first school salesmen is not significant, as reported in Table 28.

Table 28

Significance Of Increase In Mean Non-verbal Idea Scores Over Time By School

School	Mean Non-verbal Score For The First 8 Test Points	Mean Non-verbal Score For The Last 8 Test Points	Significance Of The Increase
1	4.1	5.4	n.s.
2	5.6	8.4	.001
3	3.1	6.2	.001

For the derived statistics see Appendix G.

The second school salesmen report more non-verbal cues in both the first and second halves of the sales call than first school salesmen, and the increase in the mean number of non-verbal cues reported by the second school is about double the increase indicated by the first school. While the rate of change between periods for the third school is similar to that of the first school, again the total number of cues reported is not of the predicted magnitude.

Hypothesis 2-2 is supported by the comparison of School One and Two. The number of cues reported increases significantly between halves of the sales call for the high effect salesman while it does not increase significantly for the low effect salesman.

Hypothesis 2-3 - Findings

Hypothesis 2-3 states that high effect salesmen will report more verbal cues as the encounter unfolds than will low effect salesmen. However, the data in Table 29 indicate that the verbal behavior reported by first, second, and third school salesmen is virtually identical over time. All subjects report significantly fewer verbal cues as the encounter unfolds, which, as noted previously, is typical of multi-phase, open-answer tests. In addition, the relative responses are nearly the same. Therefore, in either absolute or relative terms, there is no evidence to support Hypothesis 2-3.

Table 29

Significance Of Decline In Mean Verbal Idea Scores Over Time By School

School	Mean Verbal Scores For The First 8 Test Points	Mean Verbal Scores For The Last 8 Test Points	Significance Of Decline
1	15.5	10.3	.01
2	14.8	10.0	.01
3	14.3	9.2	.01

For the derived statistics see Appendix G.

Hypothesis 2-4 - Findings

Hypothesis 2-4 states that high effect salesmen will report more increasingly consistent classifications of individual scenes than will low effect salesmen. When average variances are calculated for both the first eight and the last eight test points for each school, it can be shown that the variances increase over time. Therefore, Hypothesis 2-4 is not supported in absolute terms.

If school variances are compared in Time-I (the first eight test points) and in Time-II (the last eight test points), however, Hypothesis 2-4 is supported. In Time-I the school variances are statistically the same, while in Time-II two comparisons are significantly different and in the predicted direction, as shown in Table 30.

Table 30

Comparison Of Encounter Rating Variances Between First, Second, And Third Schools Across All Test Points In Time-I And Time-II

Comparison	Direction	Time	Significance
3-2	p.	I	n.s.
2-1	p.	I	n.s.
3-1	p.	I	n.s.
3-2	p.	II	.05
2-1	n.p.	II	n.s.
3-1	p.	II	.05

For the derived statistics see Appendix G.

In other words, the variances of the high effect salesmen increase more slowly than those of the low effect salesmen in the comparisons of School Three and Schools Two and One.

Summary Of Evidence On The
Concept Of Understanding Over Time

Relative to the low effect man, the high effect salesman reports more cues - more non-verbal cues and increasingly consistent encounter ratings as the sales call develops. Only the hypothesis that the high effect salesman would report more verbal cues as the sales encounter unfolded is not supported. These findings provide support for three out of the four hypotheses considered under the concept of understanding.

Attention is now focused on the hypotheses related to the concept of picking.

Hypothesis 2-5 - Findings

Hypothesis 2-5 states that high effect salesmen will report more strategic items than low effect salesmen as the encounter unfolds. While both Strategy-1 and Strategy-2 increase significantly (.01) as the sales call develops, there are no significant differences between schools in the predicted direction. Hypothesis 2-5, therefore, is not supported.

Hypothesis 2-6 - Findings

Hypothesis 2-6 states that high effect salesmen will report fewer tactical changes than low effect salesmen as the encounter unfolds. All subjects report a statistically significant (.05) decline in tactical changes as the sales call progresses. Hence the hypothesis is not supported in absolute terms. In relative terms, however, the hypothesis is supported, since high effect salesmen report fewer tactical changes as the sales call develops.

In the first half of the sales call second school salesmen report significantly more tactical changes than do the first school salesmen. This is shown in Table 31.

Table 31

Comparison Of Mean Number Of Tactical Changes Between The First And Second Schools In Time-I And Time-II

Comparison	Direction	Time	Significance
2-1	p.	I	.05
2-1	p.	II	n.s.

For the derived statistics see Appendix G.

In the second half of the sales encounter, however, the difference between the number of tactical changes reported by first and second school salesmen is not significantly

different. Therefore, high effect salesmen report relatively fewer tactical changes as the sales call develops and Hypothesis 2-6 is supported.

Hypothesis 2-7 - Findings

Hypothesis 2-7 states that high effect salesmen will report more increasingly consistent response ratings than will low effect salesmen. This hypothesis is not supported either absolutely or relatively.

In absolute terms, the variance of the salesmen's response ratings increases significantly (.05) between the first eight and last eight encounters. In relative terms, results are either not in the predicted direction or not significant. For example, only the comparison of Schools Two and Three is in the predicted direction in both Time-I and Time-II. However, Hypothesis 2-7 is not supported since salesmen reported fewer increasingly consistent response ratings, as shown in Table 32.

Table 32

Comparison Of Response Rating Variances Between First, Second, And Third Schools Across All Test Points In Time-I And Time-II

Comparison	Direction	Time	Significance
3-2	p.	I	.05
2-1	n.p.	I	n.s.
3-1	p.	I	n.s.
3-2	p.	II	n.s.
2-1	n.p.	II	.05
3-1	n.p.	II	n.s.

For the derived statistics see Appendix G.

Hypothesis 2-8 - Findings

Hypothesis 2-8 states that high effect salesmen will report fewer things to do and say over time than low effect salesmen. As shown in Table 33 the number of things salesmen report that they will do or say over time does not change significantly over time. Moreover, the mean numbers of items reported by Schools Two and Three are not in the predicted direction. The high effect salesmen report greater differences than the low effect salesmen, indicating that even in relative terms, the hypothesis would not be supported if the results were significant.

Table 33

Significance Of Change In Mean Idea Scores Over Time By School

School	Mean Idea Score For The First 8 Test Points	Mean Idea Score For The Last 8 Test Points	Significance Of The Change
1	26.7	26.6	n.s.
2	26.0	27.2	n.s.
3	24.1	25.4	n.s.

For the derived statistics see Appendix G.

Hypothesis 2-9 - Findings

Hypothesis 2-9 states that high effect salesmen will report more things to avoid doing or saying over time than will low effect salesmen. As shown in Table 34, salesmen report fewer things to avoid doing or saying over time, and none of the declines is significant. Although the decline for the first school's salesmen is approximately three times greater than the declines for the other two schools, it is still not significant. Therefore, even in relative terms, Hypothesis 2-9 is not supported.

Table 34

Significance Of Decline In Mean Idea Scores Over Time By School

School	Mean Idea Score - Items To Avoid For The First 8 Test Points	For The Last 8 Test Points	Significance Of Decline
1	5.5	4.6	n.s.
2	6.2	6.0	n.s.
3	6.2	5.9	n.s.

For the derived statistics see Appendix G.

Summary Of Evidence On The Concept Of Picking Over Time

Among the hypotheses related to the concept of picking, only 2-6 concerning tactical changes is supported. Relative to low effect salesmen, high effect salesmen report fewer tactical changes as the sales call unfolds.

Hypothesis 2-10 - Findings

Hypothesis 2-10 states that high effect salesmen will demonstrate greater increasing correspondence between encounter ratings and response ratings than will low effect salesmen. However, there are no findings to support this hypothesis, as shown in Table 35.

The correlation coefficients for third and second schools decline significantly while for the first school there is an insignificant rise. Moreover, coefficients of

the higher effect groups fall most precipitously, barring a relative interpretation of the findings. Hypothesis 2-10 is not supported by the present findings.

Table 35

Significance Of Change In Average Correlation Coefficients Over Time By School

School	Average r For The First 8 Test Points	Average r For The Last 8 Test Points	Significance Of The Change
3	.57	.13	.01
2	.48	.13	.01
1	-.05	+.03	n.s.

Summary Of Evidence On The "Shift From Tactical To Strategic Thinking"

As shown in Table 36, the findings support hypotheses concerned with the high effect salesman's reporting more cues, non-verbal cues, and increasingly consistent classification of individual scenes than low effect salesmen. These are the hypotheses associated with the concept of understanding.

In addition, the hypothesis that high effect salesmen will report fewer tactical changes is supported. This hypothesis is related to the concept of picking. Taken together, the findings suggest that high effect salesmen do

demonstrate a more pronounced shift from tactical to strategic thinking. This is consistent with Premise 2-0. Moreover, it provides additional insights into how monitoring changes in the course of a sales call.

Table 36

Premise 2-0: Summary Of Significance Where High And Low Effect Are Determined By The Between Schools Index

Hypothesis	Cue Words[a]	Significance
2-1	"cues"	Supported
2-2	"non-verbal cues"	Supported
2-3	"verbal cues"	Not Supported
2-4	"consistent ratings"	Supported
2-5	"strategic items"	Not Supported
2-6	"tactical changes"	Supported
2-7	"consistent ratings"	Not Supported
2-8	"do and say"	Not Supported
2-9	"avoid"	Not Supported
2-10	"between ratings"	Not Supported

a - For a complete statement of premises and hypotheses, see pages 18 to 22.

Although a number of questions about the unsupported hypotheses associated with the concept of picking remain, the evidence supporting Premise 2-0 is adequate to justify continuing this line of research.

CHAPTER V

RESULTS AND IMPLICATIONS OF THE RESEARCH

The fundamental purpose of this research was to evaluate the proposition that it is only by monitoring feedback that the salesman face to face with a prospect can send the appropriate signal at the right time. In the process of carrying out the investigation a model of how salesmen communicate was proposed, operationalized, tested, and the findings presented.

In this chapter, after the findings are reviewed, implications for marketing theory and practice are discussed, together with suggestions for future research. A short summary concludes the chapter.

Review Of The Findings

In this research the chief difference between the two major guiding premises is that Premise 2-0 contemplates a number of changes in the dimensions of understanding and picking over time while Premise 1-0 does not.[1] Rather than

[1] For a complete statement of premises and hypotheses, see pages 18 to 22.

structuring this review around the premises, it will be focused on the three concepts of understanding, picking, and monitoring, in and over time. In this section, high and low effect are defined in terms of the Between Schools Index, since the findings were sharper on that criterion than on the other indices.

1. The concept of understanding - is supported by significant results for hypotheses involving more cues, more non-verbal cues, and more consistent encounter ratings both in and over time. Only the null hypothesis concerning verbal cues was not rejected. The research findings suggest that success in selling is not tied to a superior ability to interpret verbal feedback; rather, that the successful salesman is able to "decode" more of the information in the non-verbal component of feedback than the less successful man. In addition, the high effect salesman is also able to take the information available at each point in the sale and to determine how favorable or unfavorable it is to the whole. Given the same period of time, the high effect men are able to arrive at more consistent judgments about the feedback information than are the low effect men. In the typical exchanges between salesman and prospect, the former has only a limited time to understand and respond to most feedback.

Therefore, the high effect salesman's ability to make summary judgments assumes a time constraint.

The findings provide support for the research model, since as predicted, salesmen who understand more feedback from the prospect are the high effect men.

2. The concept of picking - is supported by significant results for only the hypotheses concerned with tactical change. High effect salesmen report more tactical changes than do low effect salesmen. As predicted, however, the high effect men report fewer tactical changes over time. Taken together, these findings provide support for the proposition that the high effect salesman, in adjusting his approach to the prospect, explores more alternatives early in the sale than does his low effect counterpart. Once settled on an approach, he does not continue to adjust tactically as does the low effect salesman. These significant findings shed light on the salesman's behavior in picking responses and give partial support to the research model.

The remaining null hypotheses considered in relation to the concept of picking were not rejected. The failure to find significant relationships may be due in part to the measurement techniques used. A number of potentially fruitful

ways of refining them to enhance their precision are discussed in the section of this chapter entitled Suggestions For Further Research.

In summary, the concept of picking is supported only by the findings related to the hypotheses on tactical change in and over time. Whether or not the other dimensions of the concept originally hypothesized are viable must await further research.

3. The concept of monitoring - is supported by the findings showing that the responses high effect salesmen pick are more closely matched to their understanding of the sales call than are the responses of the low effect men. This provides direct support for the Cash-Crissy postulation that in the face-to-face situation analysis of the prospect by the salesman is a prerequisite of sales tactics.[2]

Moreover, the findings take on additional significance when considered in light of what has already been discussed in the section on understanding. There it was established that the high effect salesmen are not only more sensitive to information, but also more consistent in rating encounters in and over time.

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[2] Cash and Crissy, "Tactics For Conducting the Sales Call," The Psychology Of Selling, Vol. 5, pp. 39-52.

It appears that the high effect salesmen understand more of the feedback to which they are exposed, especially the non-verbal component; are better able to summarize it consistently; and pick responses more appropriate for the prospect than do the low effect men.

Of the three concepts reviewed above, understanding and monitoring are well supported by a number of the findings while the concept of picking is not. Further research would be required to determine its usefulness. Therefore, although additional clarification of the dimensions of picking is required, monitoring appears to be a useful concept in describing the behavior of salesmen.

Contributions Of The Study To Marketing Theory

This study adds substance to modern selling theory by providing experimental evidence in support of the research model of communication in "creative" or problem solving selling situations. For "creative" selling situations, the Needs-Satisfaction-II theory is a realistic description of the communication between the buyer and the seller.[3] In addition, it underscores the value of the salesman's understanding the prospect's needs before making a presentation.

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[3] See footnote 15, p. 12, and the discussion of the Needs-Satisfaction-II theory, pp. 40-41.

Where the Needs-Satisfaction-II theory of selling applies and where the communications requirements of customers are known, this research suggests that companies may wish to assess the feedback monitoring skills of their salesmen, using this as one of the criteria for allocating them to accounts.

Beyond assigning salesmen to accounts, the methods for measuring monitoring skills could be used in integrating the salesman's information into a company's marketing intelligence system. In other words, if each salesman's ability to monitor feedback is known, his reports can be interpreted accordingly.

Finally, the concepts developed, describing the salesman's communication behaviors, may prove useful in future thinking about personal selling.

While attempts have been made, personal selling does not yet appear to have a tenable taxonomy. Eventually, one will be required to facilitate the study of different types of selling as well as the interrelations between them on both theoretical and practical levels. While a comprehensive analytic structure for personal selling would undoubtedly encompass many dimensions of selling not considered in this research, this investigation does provide a model which could be used in classifying different types of communication behavior and since the ability to describe objects and

relationships has frequently been a preliminary to the development of theory, it is hoped that this study will contribute to the growth of selling theory.

Contributions Of The Study To Marketing Practice

The contributions of this research to marketing practice stem from both the research model and the measurement techniques developed.

Replication could result in stable and comprehensive information for use in selection, training, and performance evaluation. Specific norms indicating the different response patterns typical of high and low effect salesmen at key stages in their careers could be developed.[4] Once established, the norms could be used for evaluating the responses of sales applicants, for assessing the progress of novice salesmen in acquiring the selling skills required to be competitive in the marketplace, and in evaluating the effectiveness of alternative training programs on the psychology of selling. A related application is diagnosis in the case of individual salesmen. A salesman who is having difficulty can be evaluated on his ability to monitor feedback and have the skill area or areas in which he is deficient pinpointed.

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[4] These norms would be specific to the type of sales job for which they were designed. For a more detailed discussion of this point, see Robert M. Guion, op. cit., pp. 424-447.

Still another application lies in training men in the buyer-seller interaction. A salesman wishing to sharpen his interpersonal skills for a specific market segment could select a tape of audio-visual stimuli representative of the communications behavior in the market and compare his responses with those of men who have been successful in the field.

Finally, there are a number of contributions to marketing practice stemming from the research model. These include a number of changes which marketing management may wish to consider - for example, the inclusion of a monitoring dimension in job descriptions, selection procedures, and job performance evaluations, given the importance of the ability to monitor feedback to sales success.

Additionally, the research model can be utilized in training as a descriptive device to introduce new salesmen to the buying-selling process and to focus meetings both on the process of selling and the attendant need for reaction analysis, specifically including non-verbal feedback.

Suggestions For Further Research

Two types of further research are recommended. The first would seek to replicate the results of the present project, while the second would extend the research to cover other types of selling.

There are at least four areas in which additional study could have a substantial impact on advancing knowledge in the field of personal selling. These are:

1. Sales effectiveness measures - To develop the present testing procedures into a more sensitive instrument for measuring a salesman's ability to monitor feedback, better indices of sales effectiveness are required.

The traditional approach has been to begin by developing a battery of tests rather than by defining the behavior to be measured. Moreover, it has neglected such important variables as the quality of management a salesman receives, resulting in measures with, at best, short-term validity.

Therefore, in approaching this problem, attention should first be focused on gaining a fundamental understanding of the selling jobs involved before designing a system to measure sales effectiveness. This approach should result in measures that are reliable and valid predictors of sales success for extended periods of time, since there is a rationale tying job performance and job measurement together.

2. Testing procedures - To develop the potential of the present measurement techniques more fully, research is required to arrive at answers for the following:

a. Does the number and arrangement of salesmen around the T.V. monitors have an important influence on the results? Which arrangement and what subject number should be used?

b. How are the findings influenced by changes in the audio-visual stimuli? Specifically, how do changes in content, format, overall length, time between test points, and duration of test points affect results?

c. Are there improvements which could be made in the format or wording of questions in the research booklet which would improve results?

3. Data Analysis - To establish the limits of evidence supporting the research model, it might be fruitful to explore the following issues:

a. What is the impact on the research findings of using alternative systems for coding the data? Specifically, are systems which include measures for tapping the quality of the relationships between idea units in subjects' responses, or the appropriateness of the responses at given test points, more efficient than the method used?

b. Can computer software be created to perform the required calculations at a reasonable cost? This is important since simplification of both coding and data handling, as well as reducing the time required to obtain results, are important steps in "packaging" the model for use by line management.

4. Refining the operationalizing of hypotheses - In operationalizing hypotheses, certain implicit assumptions are made. For example, in Hypothesis 1-9, the responses of the high effect salesmen were assumed to cluster around one focus. The findings, however, raise doubts about the viability of this assumption. Therefore, it is important to determine whether or not the picking responses of salesmen cluster around more than one foci. If they do, then procedures must be set up for assigning subjects to appropriate response "families" and for developing indices of consistency both within and between multi-family groupings.

Conceptually, the determination of whether or not a response falls into one or another family is straightforward, but on the practical side, it is extremely difficult to set up coding procedures which are sensitive to subtle differences in meaning without being cumbersome to use.

Answers to questions such as those raised in the sections above would provide an important part of the information required to improve the definition and measurement of "problem solving selling" investigated in this research.

Summary

This study has attempted to determine experimentally how salesmen differ in their sensitivity to and utilization of the verbal and non-verbal information in feedback. The focus of the effort was on salesmen involved in "creative" selling and the analysis was conducted in terms of a research model derived from the theories of communications and personal selling. The findings provide some support for the model, as well as the personal selling theory to which it is related - the Needs-Satisfaction-II Theory. However, replication is required before a final judgment is made on the validity of the theory.

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APPENDIX A

A SALES CALL ON THE HOLT COMPANY

Featured on an appropriate background are the following words: "NCR presents A Sales Call On The Holt Company." Background music is also used which begins to fade out when the camera switches to a narrator seated behind a desk. On the desk are various props which are used to illustrate later points.

NARRATOR: NCR presents A Sales Call On The Holt Company. NCR is people - people working together to solve client problems. Over the years NCR has pioneered the development of the finest accounting systems. Without you, the salesman, however, fewer businessmen would enjoy the remarkable benefits of modern accounting systems. In the past, a salesman had to persuade businessmen to trade in their quills and eye shades. Now, powerful business machines like the NCR 400 have made obsolete the tremendous variety of hand written forms.

The Narrator holds up (1) a machine printed form and (2) a not too neat hand written form.

NARRATOR: The man with the old hand written books had an inefficient system but it took an NCR salesman to show the customer how his problem could be solved economically. If you stop to think about it, if it were not for the generations of salesmen before you, business might still be using the abacus,

Narrator shows toy abacus

NARRATOR: instead of the new Century Series Computer.

Every day while you are making calls, surveys, proposals, demonstrations, and closing orders, NCR is developing new products to serve your clients better. Today you are going to make a call which could be important both to you and NCR. Your prospect will be here on the screen. Your objective is to make a sale. You will experience a series of brief audio-visual encounters with the management of Holt Company, a subsidiary of Quigley Manufacturing Company. On the screen you will meet the following people:

Show picture of actress — A Receptionist at Holt Company

Show picture of actor — William Knight, President of Holt Company

Show picture of actor — Peter Allen, Chief Accounting Officer at Holt Company

Show picture of actor — Lucifer Morley, Chief Accounting Officer at Quigley Manufacturing Company

Show picture of actress — Janice, a Clerk at Quigley Manufacturing Company

The Narrator points toward the camera — You are George Day, a salesman from NCR. Since you are the salesman, you will not be seen on the screen. You should think about what you would do and say next as you interview

the managers at Holt Company since your objective is to sell them on an NCR system. You will be given feedback. Part of this will be verbal, involving your customer's spoken words. The other part will be non-verbal, involving his gestures, movements, and so on. Look for positive signs, information favorable to the sale - and look for negative signs, information unfavorable to the sale, just as you do in the field. After each of the scenes, you will evaluate what you have <u>seen, heard, and felt</u>; and what your customers are like. Then you will outline what you would do and say next, together with your plans for the future to accomplish your objective, the sale.

In front of you is an answer booklet. Your answers should be written in the space provided on the answer sheet. Let's try a practice run to see what the procedure is. After that, if you have any questions, we will clear them up. Remember, use the audio-visual information given to help you make a sale.

<u>Test Point #1</u>

NARRATOR:

Mr. Knight received this letter from you about two weeks ago.

Narrator holds letter and reads it.

Mr. William Knight, President
Holt Company
Dayton, Ohio

Dear Mr. Knight:

In recent years, NCR has been especially interested in cost control systems designed for companies such as Holt. More than once has the timely information from one of these systems paid for the equipment many times over.

We at NCR know that as a successful businessman you are interested in efficiency, up-to-date records, and in obtaining the greatest economic value for the money invested in Holt. The manufacturing industry has always been my special concern and I have been able to serve many companies to their greater profitability, many of these having payrolls no larger than your own. I would be honored to serve you.

The specific purpose of this letter is to obtain your permission to make a survey of your present method of operation. This service is free of charge. Even though you may not change your system, many useful ideas often result from such a survey.

I will be calling you in the near future to arrange for a definite appointment to see you personally.

Sincerely,

George Day
The NCR Company

Narrator puts the letter down.

NARRATOR: Not long afterward, you <u>did</u> phone Mr. Knight and today you are calling on him in person. Let us assume that you have just arrived at the Holt Company.

(Fade Out)

SCENE 1 - The Lobby

Scene: In the lobby of Holt Company, George Day is talking with the receptionist. She, of course, is seen through Day's eyes and the camera catches what Day would see. Day himself is never seen.

RECEPTIONIST: Good morning.

DAY: Good morning, my name is George Day from NCR. I have an appointment with Mr. Knight this morning.

RECEPTIONIST: Yes, I know, and Mr. Knight was expecting to see you at 10:00, but unfortunately, something rather urgent has come up. He has to meet with Mr. Lord. It may be a few minutes before he can see you.

Test Point #2

DAY: I see. Thank you. May I ask who Mr. Lord is?

RECEPTIONIST: Yes, he is President of Quigley.

DAY: What is the relationship between Quigley and Holt?

RECEPTIONIST: Holt is a subsidiary of Quigley Manufacturing.

DAY: I see. Well how long do you think it might be before Mr. Knight can see me?

RECEPTIONIST: Probably not more than ten minutes. Would you like a cup of coffee?

DAY: No thank you.

He turns, sits down, and takes several cards out of his pocket and begins reading them.

DAY: Holt Company, President Mr. William Knight, sales about $50 million. From recent D & B reports and newspaper clippings it appears to be growing . . . Presently has 200 employees.

Scene: There is more on the cards which is not read, as can be seen when the cards are shown.

RECEPTIONIST: Mr. Day, thank you for waiting. Mr. Knight will see you now.

DAY: Thank you very much. Is this the way to Mr. Knight's office?

SCENE 2 - Mr. Knight's Office

Scene: Mr. Knight is sitting at his desk.

KNIGHT: I am very sorry to have kept you waiting, Mr. Day, but something unexpected has come up to which I must return shortly.

Mr. Knight appears annoyed that Day is there, since he has interrupted something. Knight is curt but courteous and apparently does not have the time to see him.

DAY: Thank you, Mr. Knight. As your local NCR representative I can understand that successful men have scheduling problems. If you were not a busy man, Mr. Knight, there would be little need for me to call on you.

KNIGHT: I appreciate your understanding, and I wish we had more time, but since we do not, let us get down to brass tacks. What exactly is it that you wanted?

DAY: To show you NCR's potential . . . With my letter I attached a list of my customers in the area to introduce you to our systems capabilities.

Knight picks up list from his desk.

DAY: I'm sure you're familiar with some of them . . . you surely know Tucker, Inc.

KNIGHT: Yes, I do.

DAY: That company installed a system to do its payroll, accounts payable, and general cost accounting. The company President reduced his accounting costs at the same time he increased his management information.

KNIGHT: That is interesting, but Holt is really not in a position to do anything right now. We are not in the market at the present time, but why don't you leave some literature with me.

Test Point #3

DAY: Mr. Knight, my purpose in talking with you today is not to change your present system, but rather to set up a visit to tell you something about the updated systems which NCR has provided for other manufacturers. Actually, I am in the same position as you are. You offer useful services to your customers, but you wouldn't hide these facts from the public, would you?

KNIGHT: No.

DAY: Many companies similar to your own have obtained excellent results from our systems. As an NCR representative, my first job is to tell other businessmen about the services which NCR provides. All I want is the opportunity to tell you of the services which we can

offer, much as you explain your services to your customers. Do you think that this is an unreasonable request?

KNIGHT: Of course not.

DAY: I know you are very busy today and I do not want to take any more of your time but I would like to make a survey with your approval. This consists of our coming into your organization and systematically studying and analyzing your accounting and record-keeping requirements. Perhaps we can show you how to get more information, more accurate information, and just as significantly, more up-to-date information. Also we may be able to perform your requirements more efficiently. Would you be interested?

KNIGHT: It sounds interesting.

Test Point #4

DAY: Based on our experience with other companies your size, I believe we can make improvements with our modern techniques. If we can justify the investment, would you be willing to attend a demonstration of the system and make the investment?

KNIGHT: We would consider it carefully.

DAY: If you could refer me to your controller, it will allow me to give you the information. Whom should I see?

KNIGHT: Let me see if Pete Allen is available. Pete is our chief accounting officer at Holt and I think you will find him very capable. He may not be free, however.

He picks up phone.

KNIGHT: (To secretary) Would you get Pete for me please? How are you this morning, Pete? Fine. Pete, would you have time to see a Mr. George Day from NCR this morning? You're . . . Oh, I see. Well, he is in my office right now. Why don't you do that and come up. Thank you.

He pauses

Pauses again

Again pauses

Mr. Knight rises and turns to Mr. Day Pete will be here in a minute.

Day rises to his feet

DAY: I very much appreciate your time and look forward to our next meeting, Mr. Knight.

Scene: Pete Allen walks in hurriedly and shakes hands with Mr. Day.

KNIGHT: Pete, meet George Day of NCR. George, Pete Allen.

ALLEN: Hello, George.

DAY: Hello. Pleasure to meet you Mr. Allen.

KNIGHT: Spend as much time with Mr. Day as you think justified from your conversation, Pete. Mr. Day is the local NCR representative. I'll fill you in later.

ALLEN: Yes, sir.

KNIGHT: And keep me posted. Nice talking to you Mr. Day.

(Fade Out)

SCENE 3 - Mr. Allen's Office

Scene: Mr. Allen's office is similar to Mr. Knight's but a little less orderly, and the desk has more papers on it. In this scene, Allen might be seated behind his desk and Day (as revealed from the camera angle) seated in front of the desk.

DAY: Mr. Allen, I very much appreciate your seeing me today. Mr. Knight and I arranged our appointment early last week, but something apparently came up.

ALLEN: Yes, it did. Something came up about 9:30 this morning.

DAY: I would imagine that Mr. Knight is a challenging man to work for.

Scene: Allen's face lights up at the mention of Mr. Knight's name, showing that Mr. Knight and Mr. Allen work well together, like, and trust each other.

ALLEN: He sure is. We teamed up several years ago and have enjoyed working together ever since.

DAY: What I discussed with Mr. Knight was a survey of your accounting system and he has approved our studying your requirements. NCR, as you may know, is unique in offering a broad line of business equipment - from computers to desk calculators.

ALLEN: That is interesting, but before we pursue the study, let me ask one thing.

DAY: Yes, certainly.

ALLEN: I can only guess how much you know about Holt, but are you aware that Holt is a subsidiary of Quigley Manufacturing Company, Inc.?

DAY: I became aware of that fact this morning.

ALLEN: It is not widely known, but it is important, since all of our data systems are tied to Quigley. Our hands are tied. Lucifer Morley (said icily) at Quigley set up systems for Holt a long time ago before either Bill Knight or I came aboard. Any changes would have to be cleared through Morley.

Test Point #5

DAY: I appreciate your telling me this, Mr. Allen, and perhaps rather than discussing specific NCR capabilities now, we should discuss one or two important questions: First, are you satisfied with your current reports in terms of content, accuracy, and timeliness?

ALLEN: Frankly, no. I have to spend many evenings preparing data for Mr. Knight.

DAY: Could you be more specific?

ALLEN: We are growing rapidly and entering new markets with new products, but our sales data is pretty crude, if you know what I mean.

DAY: Yes, I have had other clients with that problem.

ALLEN: The present system gives us what we need for the old products, but it does not provide information in the form Mr. Knight wants for managing the new growth areas. Hence, I have to try to convert the data to a more useable form.

DAY: I would imagine that converting is time consuming and tedious.

ALLEN: (Said positively) Yes it is.

DAY: These are the areas we should get into. If we can eliminate some of this time, will Holt be in a position to invest in the system?

ALLEN: Yes, I would imagine that we would if cost savings are possible.

<u>Test Point #6</u>

DAY: (Looks at wristwatch) You know, it is about time for luncheon. Do you think this would be a good opportunity to meet Mr. Morley? Could we perhaps set up a discussion with Mr. Knight, Morley, and ourselves?

ALLEN: (Said with positive appreciation)

That is an excellent idea! Mr. Knight is tied up with Mr. Lord, President of Quigley, but let me see how we can get Morley to join us.

Turns away from Day toward the phone, which he picks up

Excuse me.

Mr. Knight, please. (Pause) I see. (Brief pause) Yes it is. Bill, sorry to break in. You're meeting with Mr. Lord today, aren't you? I would like to clear inviting Morley to lunch with Day and myself in your name. (Brief pause) Thank you! (Pause)

Putting phone down, Allen swivels back to face Day

Get Morley over at Quigley please.

DAY:

I am sorry that we will not be seeing Mr. Knight, but lunching with Mr. Morley should be very interesting.

The phone rings

ALLEN: (He speaks formally and not in a friendly tone.)

Yes, I see. (Pause) Lucifer? Pete. I know you are very busy today, but Bill Knight thinks it would be a good idea if you could break away and have lunch with me and Mr. Day of NCR. (Pause) Yes, I do. (Pause) Nevertheless, at Mr. Knight's request, we would like to meet you at the Chop House at twelve o'clock, if possible. Fine, good bye.

Allen turns to Day with a wry smile

SCENE 4 - The Chop House

Scene: The Chop House is not a fancy restaurant, but it is not brightly lit. Realism may be enhanced if two or three people are seated at a table nearby Allen and Day who have drinks in front of them.

ALLEN: (Said with irritation) I really must apologize. It seems as if we have been waiting an hour for Morley.

DAY: (Calmly) No apology necessary.

ALLEN: (Excitement and irritation) Hold it, here he is now.

Scene: Lucifer Morley appears.

MORLEY: I am sorry I am late but I am so damn busy that I wish you had not asked me.

ALLEN: Mr. Morley, I would like you to meet George Day. George, Lucifer.

MORLEY: (With pseudo-sincerity) It's a pleasure, I am sure.

DAY: (Positive) Nice to meet you.

Scene: All seated, waitress expecting order.

DAY: Gentlemen, should we order?

MORLEY: Why not, but let's have a drink as long as NCR's buying.

ALLEN: (To Morley) Fine, it will be good to relax for a few minutes. (Said pleasantly)

Waitress leaves to pick up a drink for Morley

Morley looks unappreciative and arrogant

Then the camera switches back to Allen

ALLEN: Besides, you will be refreshed and more efficient this afternoon. (Said very pleasantly)

Waitress brings drink to Morley

MORLEY: (Drinking first martini) You may be right, but I really do not see the need for this get together. It's a waste of time, even if a pleasant one. Besides we

(Sarcastically) have always done business with your major competitor.

Waitress appears

ALLEN: What are you going to have, Lucifer?

MORLEY: (Looking quickly at the menu) I'll have the special, but no french fries.

ALLEN: Make that two.

DAY: I'll have the special and black coffee please.

WAITRESS: Thank you.

ALLEN: Bill Knight wanted to be here, but couldn't, but I can explain why he wanted you to talk to Mr. Day and how he fits in.

MORLEY: (With a slight sneer) You are going to show us how to run our company?

ALLEN: As you know from our previous discussions, we at Holt are not getting the type of information we really need.

MORLEY: I thought we were through beating that dead horse.

Test Point #7

ALLEN: Since we last brought this up, not only has competition become stronger, but because of the changing composition of our sales, the need for new and up-dated management information has increased drastically. These changes, I think, require improvements in our reporting system, especially for sales. The only way we can find out if the present system should be changed is to make a survey.

WAITRESS: Refills, anyone?

MORLEY: Yes, I'll have one.

I can see how there might be some value in that, but as for the more important point; this has been a highly successful company for 80 years and I see no reason for changing a winning game.

ALLEN: (Excitedly) I share your concern, certainly, for the welfare of Quigley as a whole. I don't think you would question my loyalty to Quigley - however, I work for Holt, too, and am interested in improving Holt.

Test Point #8

DAY: Pete, if I may break in, I would like to agree with Mr. Morley and assure you that the integrity of the system will be retained, but that doesn't mean we can't improve it. A survey can let you know where you stand. Today, more than ever, modern business is dependent upon information to make a profit.

Scene: Second drink for Morley arrives.

ALLEN: (Still a little excited) I am certainly not in favor of reducing Quigley's efficiency, but I am at the same time interested in improving Holt's.

MORLEY: (Menacingly) That, Pete, smacks of personal ambition, and you're going to give us more problems, when we can't even get done what we want to now.

DAY: (Forcefully) Mr. Morley, the survey that we are talking about will only cost you and us a little time to determine what improvements are possible. We study the flow; what each person does in detail, how they do it, when they do it, what the average volumes of work are, peaks of work, etc.

In this way, we can determine if our equipment can justify itself. By justifying itself, I mean, will it make a direct payroll savings for you. Will it give you meaningful information which will help you to manage your business more profitably? Will our equipment help you to control your sales more efficiently? Just how can it provide you with more timely management summaries and up-to-date reports? Naturally, if it is evident that changes would not be in Quigley's best interest, they need not be pursued.

Scene: Morley takes a long drink.

DAY: At this point I don't know and, respectfully, you do not know either, what will best satisfy your requirements without a careful study. Let's conduct a survey for Holt and bury the dead horse. That is what you really would like, is it not?

MORLEY: Yes.

DAY: Fine. Is next Tuesday o.k.?

MORLEY: (Reluctantly) I suppose so.

DAY: Good. It's all settled. We will be there next Tuesday. If you could allow your assistant to cooperate with Mr. Allen, the survey need not disturb you at all, Mr. Morley, inasmuch as it only applies to Holt.

MORLEY: (Said somehow insincerely) Yes, you should visit with my assistant and I do hope this survey will be a success. After all, while we may disagree on the means, our end, the strengthening of Quigley, is the same.

Scene: Fade out of picture and sound. Conversation degenerates into small talk.

DAY: I think there is something in what you say, Mr. Morley.

ALLEN: Yes, and I hope that we have not taken too much of your time . . .

Test Point #9

SCENE 5

Scene: Mr. Knight's office, the day before the survey. Allen and Day are bringing Mr. Knight up to date.

ALLEN: The luncheon with Morley was, as you might expect, strained. He reluctantly agreed to allow a survey of Holt's accounting and control systems. We've scheduled it to start tomorrow.

KNIGHT: Fine. We will look carefully at what you come up with.

DAY: I hope that we at NCR will be able to contribute to Holt's improvement as well as your own plans through better, more available, and less costly data.

KNIGHT: Pete has already briefed me on the information you will be reporting, and I appreciate your keeping me advised.

ALLEN: See you tomorrow, George.

DAY: Fine, see you, Pete.

Scene: Meeting breaks up.

SCENE 6

Scene: Day and Allen are in hallway outside the Accounting & Control Systems Department together, all the time engaged in conversation.

DAY: I am glad that Mr. Knight was willing to let you help us for the first day of this survey, Pete. That's what we need to get started.

ALLEN: Right! The research on similar sized companies which you did is interesting and I hope we will be able to effect similar changes here!

DAY: I hope so. Do you think we are clear on what data we need?

ALLEN: (Mild excitement) I think so! Say, here comes Morley right now.

Morley comes toward them quickly

MORLEY: Good morning, Mr. Day, Pete.

ALLEN: Good morning.

DAY: Nice to see you.

MORLEY: A problem has come up and my assistant will need to help. I hope you don't mind waiting until he finishes to start your survey.

Test Point #10

ALLEN: Of course not, but since most of the required information is basic, do you see any good reason why we couldn't see the girl who does the work? (Pause) After all, I work with her most of the time anyway, whenever problems come up.

MORLEY: (Grudgingly) That'll be fine and maybe we can discuss it at lunch. Why don't you make reservations for lunch at the Chop House at 11:30. I'll meet you there!

ALLEN: Right.

Morley leaves. Day and Allen enter doorway and see Janice.

ALLEN: Morning, Janice. How are <u>you</u> this morning?

JANICE: Hi. Can't complain. What can I do for you?

ALLEN: Meet George Day from NCR. He is trying to sell us some machines. They may make your work easier.

DAY: Janice, could you help us? We have a list here of people we would like to talk to and information we need.

JANICE: I will be glad to help as long as I can. After three o'clock I am on the switchboard. What do you need?

DAY: First, can you tell us a little bit about what you do in this department?

JANICE: A little bit of everything. I am the head of the clerical staff, but I also fill in if one of my girls is out.

DAY: Could you describe the accounting system for us?

JANICE: Where should I start?

DAY: How about starting at job costing. What forms do you use?

JANICE: Let me get those forms (turns to file cabinet and removes a file folder). - Basically this is it.

DAY: (Looks through file folder) Do you relate these job costs to specific products on a form?

JANICE: We don't have a form like that now, but here is our sales form.

DAY: Are other forms involved in the system?

JANICE: Yes, here are the rest of the forms you probably should look at.

DAY: Fine, could you describe just how your system works?

JANICE: Sure, I will be glad to.

DAY: Let's start with Accounts Receivable.

JANICE: Fine, first we . . .

(Fade Out)

<u>Test Point #11</u>

SCENE 7

Scene: Allen and Day arrive at the Chop House promptly at 11:30 and are seated at a table reserved in the name of Quigley. At 11:55 Morley arrives.

MORLEY: (Out of breath) Something has come up. I can't stay for lunch. We have another problem.

ALLEN: I am sorry you do not have time for luncheon.

MORLEY: I can assure you, I am, too, and I almost forgot to mention; my assistant who had planned to spend the day with you will not be available for the remainder of the week. I hope this will not hold you up. I will be available in a week or so if you should still have any questions. After this first day's survey, however, I really do not think you will need me.

DAY: We will report our progress to you.

MORLEY: (With slight arrogance) I know you won't feel slighted, in any way, but under the circumstances I'm being as cooperative as possible.

Scene: Morley leaves. Allen does a slow turn to camera and makes a sour face.

ALLEN: (Pause) That stinker.

DAY: NCR's ability to analyze Holt's requirements is going to be well tested. It remains to be seen whether or not our equipment can justify itself. I will bet, however, that the equipment will, and that a survey of Quigley is needed too. But let's switch to something else.

(Said half to himself)

ALLEN: Good idea, but almost impossible! You know, George, Morley has certainly handicapped our survey today.

DAY: Do you suppose it would be possible to continue the survey next week when both his assistant and Janice are back?

ALLEN: He gave us his okay so I don't see how he can really object.

DAY: Let's plan it for Monday, Pete.

Test Point #12

SCENE 8 - Allen's Office

Scene: Occurs sometime after the survey has been completed.

DAY: Now that the survey is completed, I would like to thank you for all your help, Pete.

ALLEN: I enjoyed it, despite the problems we had.

DAY: With the data collection behind us, we are in a position to discuss the procedures and equipment needed at Holt. I would like to set up an appointment at the NCR Branch Office for next week. Could you make the arrangements?

ALLEN: Yes, I can, but it would really be more convenient for us to meet here.

DAY: To see the new system in operation, as Mr. Knight agreed earlier, it is only practical to do it at the branch on the machine. Tentatively, how would Thursday morning at 10:00 be?

ALLEN: Probably o.k. I will check with Mr. Knight and Morley and confirm it.

DAY: Fine. There is also one more thing. Before that meeting I would like to go over the proposed system with you to be sure that we have all areas covered. Could we do that tomorrow?

ALLEN: Yes, let's get together about four o'clock.

SCENE 9 - NCR Branch Office

Scene: Knight, Allen, Morley, and perhaps one or two other persons are seated in the conference room. Day is standing at the head of the table. Camera focus at the beginning of the scene could be on the flip charts entitled "WELCOME TO HOLT MANUFACTURING." Next the camera could switch to the Holt executives as Day begins to speak.

DAY: Good morning, gentlemen. Everyone is present so we can begin. The results of our survey justify implementation of an NCR system and these are our findings. We appreciate the fine assistance we received from the entire staff at Holt. Their complete knowledge and alertness has provided us with the facts to recommend the NCR 400 Electronic Accounting Machine.

Chart 2

Chart 3 I would like to point out to you gentlemen some of the criteria we used in the selection of the NCR 400.

Camera from chart to 400

Modular design in equipment is a term used loosely today. We at NCR feel that modular design means giving you the power for the system you need today and the capability to provide you the system of tomorrow with the same equipment.

Close-up of tape handler

Because we use a program tape, flexible programming with the NCR 400 provides you with complete versatility. Program change means merely changing the program tape.

Operator efficiency. The design of the NCR 400 considered the operator and her ability to run the system efficiently to be of prime importance. I am sure you want your operator to be in complete control, know where she is going, where she has been, and why she is doing a particular operation. As you can see, the NCR 400 satisfies this consideration.

Electronic Calculations. The design and construction of the 400 includes the ability to perform mathematical calculations, adding, subtracting, multiplying, and dividing at computer speeds.

Electronic decisions. The NCR 400 besides having computer abilities, also has the ability to make electronic decisions. Wouldn't it be nice to have a machine decide when the FICA limit has been reached? When a job cost has exceeded the estimate by a predetermined margin? The NCR 400 has the ability to do this.

Multi-Forms carriage. The success of an accounting system is the elimination of as many problems as possible.

Having all the forms in the machine at one time puts an end to errors caused by transposition of figures, poor clarity, and fumbling location of a desired fact.

Now I would like to discuss your applications and how we will process them on the NCR 400.

Chart 4

An area that receives a great deal of your accounting attention is job cost, estimation, and analysis. With the NCR 400, you will be able to have, as a product of posting, a management oriented P & L projection - cost center analysis - actual versus estimated time analysis and realistic job status data. You are presently getting this only after a great deal of personnel overtime. Wouldn't it be a direct business advantage to have this information up to date daily and a planned reporting system?

Let's see how the 400 will accomplish this for you.

Chart 5

The system we have prepared takes advantage of the information you already have. Let's see how you will get the end results.

You presently have each job broken into material and labor charges. We propose using this as input to the system. Once you have the charges, you are ready to begin processing. Why not update employee's earning

record as you begin your processing? While you are updating the earnings record you are also distributing the labor and material charges to the proper NCR 400 memory locations for later processing and reporting. At the conclusion of the posting the charges you have an automatically created audit trail. Notice you don't have to sort and record each of these by hand. You let the machine create the reports to provide you with:

Current status of daily operations

Total job cost for all active jobs

Departmentalized summary.

Let's investigate a little further how the NCR 400 accomplishes this task that we have given it.

Chart 6

Day holds ledger in front of camera to show magnetic stripe

FADE OUT

The stripe on the back of this ledger card is a magnetic stripe used to store data for future processing and analysis. We have outlined the information you will need on job cost processing. You can see by the size of the ledger and the length of the list, that it is impractical to record all this information on the face of the ledger. This is one of the reasons we have selected the NCR 400 and the magnetic ledger feature.

COMPLETE FADE OUT

FADE IN

Chart 7

Fade in as 400 is printing columns on report. Day removes ledger and report (Sales Analysis).

How is this for reporting efficiency? The 400 has processed a sample of your bill and charge system as we outlined and created this report as an automatic by-product. Imagine what a report like this can do. Immediate information, clear and concise. You can make realistic decisions quickly and meet competition coming out rather than going in.

Chart 8

To conclude the systems presentation, let's summarize the collective benefits.

Fast accurate management reports: You have seen how the 400 provides an immediate correct and concise report. Does your present system provide this?

Permanent historical records: Each document of the system provides historical information. The ledger is a concise and permanent record of job cost in relation to estimate. The accounts receivable ledger gives you permanent customer history and the employee earnings record contains all the information for quick and efficient processing of 941-A's

and W-2's. How much time and wages do you presently expend just to get the W-2's at the end of the year?

Continuous comparisons: Wouldn't it be nice to be able to compare what a job you are doing now cost you a year ago? Pull the ledger and compare. Can you compare previous jobs to jobs you are doing now?

All records completed at one time: Think how much easier it will be to prepare for the auditor. The auditor knows that machine posted journals are far more acceptable, particularly those made at the same time as the original. Wouldn't it be valuable to have the journals all bound and ready for an audit at any time?

Eliminate duplication of effort: I am sure that you will be most pleased to know that the 400 will have your employees handle much less information media than they are now. What will the elimination of human errors in transposition mean to your accounting efficiency?

Chart 9

Now let's take a look at the investment that will be needed to accomplish what we have outlined and discussed. The

NCR 400 we are proposing is $15,990.00. This price includes a one year guarantee. To implement the system will require 7 print format bars at a total cost of $875.00. These bars will be used to control the printing as you saw in the applications we demonstrated this morning. The design, programming, documentation, installation, operator training, and necessary conversions for the systems we covered in our presentation comes to $3,800.00. This is a one time charge and will permit you to implement your system quickly and efficiently. Of course we have to add $826.00 tax and $26.00 for freight which includes delivery to your office location. The complete system charge comes to $21,517.60. I am sure this price is not shocking, but let's take a closer look at what this price means to you.

Chart 10

The system cost comes to $21,517.60. We highly recommend continuing the 400 on regular maintenance for an additional 9 years at a cost of $1,029.00 per year or $9,262.50. This addition of the maintenance brings the total for 10 years to $30,780.10. You are well aware of expending the cost through use of taxes. For our purpose we have used a 50% tax bracket for hardware, maintenance, tax, and freight. The figure we

calculate for a ten year expense to be borne by taxes comes to $15,816.05, leaving a net total of $14,964.05. We then break this ten year charge into a yearly net investment of $1,496.40 or $124.90 net monthly investment.

Chart 11

Our survey indicated that you are spending about $600.00 a month in overtime to process sales analysis and job cost information. The system we are proposing will eliminate the need for overtime and provide a monthly savings of $475.30 in salary alone. This savings comes to $5,703.60 for a year.

Return to Script

I am sure that you at Holt are interested in increasing your net profit if you can. More than ever before, modern business is dependent upon information to make a profit. You have seen this morning how this NCR system will improve your information. The sooner the order is placed, the sooner you will profit from the increased information. When would you like to have your new system installed?

Test Point #13

KNIGHT:

Our fiscal year begins in about 45 days. Could the system be in by then?

DAY: If you use standardized forms throughout, yes.

ALLEN: Speaking of forms, George, we have about one year's supply of forms on hand.

He looks at Morley That represents about $3,500. I think that your system is the one Holt really needs, but wouldn't it be better for us to wait one year until the forms are used up?

Test Point #14

DAY: Yes, in one sense, Pete, it would. You could recover the $3,500 already spent, but on the other hand you would be losing the savings from the new system. In the proposal we estimated savings of $5,703.60 per year. The first year these will be reduced by $3,500. The savings figure does not include an estimate of the cost of the time you spend making up special reports. Are there any other questions?

MORLEY: Okay. Let's see what this would really cost. We earn about 15% net on invested capital. Money costs us about 10%, and we would depreciate the proposed equipment over ten years. What would the effective cost be? (Pause) And don't give me any of that average annual cost nonsense!

Test Point #15

Camera switches from Morley to the flip chart.

DAY: While we did not cover that point in the body of the presentation we did look into it, Mr. Morley. The total amount invested would be $21,517.60 and assuming straight line depreciation, and a 10% rate of interest and also reflecting a 15% return on invested capital, the effective cost to Holt would be $4,627.85. In point of fact this reinforces what was said earlier. NCR's system will make money for you. Is there any reason why we should not go ahead and place the order now?

MORLEY: I have a question. I do not believe we have enough room for it.

DAY: When the system is in operation you will be able to move out two desks. Since the new equipment is actually smaller than that, you will be increasing the free space in the department.

Camera switches from Morley to Knight. Morley grudgingly nods acceptance of the answer.

DAY: There is no question that it will pay for itself, right? I have proven that it will give the sales information you need. You have got to approve it.

KNIGHT: I want time to think about it.

Test Point #16

DAY: Mr. Knight, you have spent the last hour reviewing Holt's information requirements. When you go back to the office you will be busy with other things. You know more about this now then you ever will. I think now is the time for the decision.

MORLEY: Maybe you have shown us that we can save money with your system, but perhaps we should also look at other systems. How do we know NCR is the best one?

Test Point #17

ALLEN: (To Morley) We have another system now that is not saving us any money, and I for one, think that this NCR system is as good or better than any of the others that I have seen.

KNIGHT: George, I am pretty well sold. But I've got to take it up with the Directors.

DAY: Fine. Why don't you approve the order subject to the Directors' approval?

KNIGHT: I think that's what we should do.

Scene: He leans forward toward Day to pick up a pen and order form. He signs his name, and slowly puts down the pen.

DAY: Thank you. Now it is our responsibility to produce the information you want and need.

KNIGHT: Holt looks forward to its new NCR system.

Sound fades out. Camera might focus on other faces and people engaged in small talk, while preparing to leave. The picture fades out.

THE END

DAY: Thank you. Now it is our responsibility to produce the information you want and need.

KNIGHT: Holt looks forward to its new NCR system.

Sound fades out. Camera might focus on other faces and people engaged in small talk, while preparing to leave. The picture fades out.

THE END

APPENDIX B

DATA COLLECTION INSTRUMENT, QUESTION FORMAT

Note: **The question format is shown for Test Point #1 and Test Point #2.** The questions in Test Point #2 are also used in Test Point #3 through Test Point #17.

A SALES CALL ON THE HOLT COMPANY

BOOK - I

Name: _____

Branch: _____

Date: _____

TEST POINT #1

What is your overall objective?

What is your name?

Who is your prospect?

TEST POINT #2

1. What did you see, hear, or feel that was:

   Very positive?

   Slightly positive?

   Very negative?

   Slightly negative?

2. Overall, how would you rate the encounter? (Check one)

   Very favorable ☐

   Slightly favorable ☐

   Slightly unfavorable ☐

   Very unfavorable ☐

3. Now what will you do?

4. What will you say next?

5. Overall, how do you rate what you will say and do next? (Check one)

A radical change in tactics - a change in approach?	☐
An intermediate adjustment in tactics - like changing to another sales point?	☐
No change - continue reinforcing present sales point?	☐
Move to the next point in the sales presentation or move to a close?	☐

6. What will you avoid doing or saying next?

7. Which step in the NCR selling plan are you working on?

8. Can you outline your plan to accomplish the step?

Yes ☐

No ☐

9. At this point, can you outline your overall plan or strategy for selling Holt Company?

Yes ☐

No ☐

TEST POINT #3

1. What did you see, hear, or feel that was:

Very positive?

Slightly positive?

Very negative?

Slightly negative?

2. Overall, how would you rate the encounter? (Check one)

Very favorable	☐
Slightly favorable	☐
Slightly unfavorable	☐
Very unfavorable	☐

3. Now what will you do?

4. What will you say next?

5. Overall, how do you rate what you will say and do next? (Check one)

A radical change in tactics - a change in approach?	☐
An intermediate adjustment in tactics - like changing to another sales point?	☐
No change - continue reinforcing present sales point?	☐
Move to the next point in the sales presentation or move to a close?	☐

6. What will you avoid doing or saying next?

7. Which steps in the NCR selling plan are you working on?

8. **Can you outline your plan to accomplish the step?**

Yes ☐

No ☐

9. **At this point, can you outline your overall plan or strategy for selling Holt Company?**

Yes ☐

No ☐

APPENDIX C

ADDITIONAL INFORMATION - A

TEST POINT #18

ADDITIONAL INFORMATION

ADDITIONAL INFORMATION - A

Kindly answer the following questions. (This information is to be used only to improve sales training. It will be kept strictly confidential and coded at Michigan State University to insure anonymity.)

1. What is your age? _____

2. How many months have you been in sales at NCR? _____

3. How many net qualification points did you bring to school? _____

4. How many qualification sales did you bring to school? _____

5. What is your approximate average monthly bonus? _____

6. What is your approximate weekly salary? (Check one)

$100 - $124	☐
$125 - $149	☐
$150 - $174	☐
$175 - $199	☐
$200 - $224	☐
$225 - $249	☐
$250 - $274	☐
$275 - $299	☐
$300 - $324	☐

APPENDIX D

SALESMAN EVALUATION

Salesman's Name: _____

Evaluator's Name: _____

SALESMAN EVALUATION

Compared to all other salesmen you have managed or seen with similar tenure, experience, and training, how do you rate this salesman? Specifically, how effective is he at:

1. Setting call objectives? (Check one)

Excellent ☐

Very good ☐

Good ☐

Fair ☐

Marginal ☐

Unable to rate ☐

2. Making appointments?

Excellent ☐

Very good ☐

Good ☐

Fair ☐

Marginal ☐

Unable to rate ☐

3. Identifying key decision makers?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

4. Determining customer needs?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

5. Developing customer needs?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

6. Presenting proposals?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

7. Follow-up?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

8. Closing sales?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

9. Servicing existing customers?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

10. Communicating with customers?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

11. Demonstrating ability?

- Excellent ☐
- Very good ☐
- Good ☐
- Fair ☐
- Marginal ☐
- Unable to rate ☐

12. Overall, how do you rate the salesman?

Excellent	☐
Very good	☐
Good	☐
Fair	☐
Marginal	☐
Unable to rate	☐

APPENDIX E

RULES FOR CODING

RULES FOR CODING

The rules for coding convert a salesman's written responses to open ended questions into Idea Scores and, where applicable, determine whether that score was triggered by verbal or non-verbal stimuli.

1. Determining Idea Scores - To determine an Idea Score the following rules apply:

Rule	Content	Idea Score
a.	Empty cell or content crossed out	0
b.	One object	1

An object can be:

- A symbol: $, &, or /
- An abbreviation: IBM, NCR
- A word: Holt, listen
- A word modified by an adjective: new system

c.	One object and a relationship	1

A relationship can be:

- A verb
- A verb and adverb

Example: "Had another appointment."
relationship object

Rule	Content	Idea Score
d.	Two objects and a relationship Example: "Asked salesman for literature." (Asked = relationship; salesman = object; literature = object)	1
e.	One or two objects, a relationship, and adjustment Adjustment can be: - A prepositional phrase - Other qualifying phrase or clause Example: "Asked for another appointment at a more convenient time." (at a more convenient time = adjustment)	2
f.	One or two objects and a relationship linked by a conjunction Example: "Morley does not want change and he mentioned competition."	2
g.	For redundancy, score using rules a through f, subtracting 1 for each occurrence Example: "Knight turned cold, lack of interest." Both "Knight turned cold" and "lack of interest" receive a 1 for a total of 2, but the redundancy is scored as a minus 1, making the final Idea Score equal to 1.	-1
h.	For direct discussion of George Day's behavior	0

2. Classifying Idea Score As Verbal Or Non-verbal - To determine whether an Idea Score is classified under verbal or non-verbal, the following rules apply:

   a. Content is verbal, if it is a literal report of all or part of the buyer's spoken or written words in the section of the audio-visual stimuli immediately preceding the test point being analyzed.

      Example: "Morley mentioned he does not want change and he mentioned competition."

   b. Content is non-verbal, if it reports action or the absence of action in the section of the audio-visual stimuli immediately preceding the test point being analyzed.

      Example: "Mr. Knight looked at his watch several times. He did not seem to be paying attention."

APPENDIX F

ABOUT THE RESEARCHER

ABOUT GARY M. GRIKSCHEIT, M.B.A.

Ph.D. candidate at Michigan State University specializing in marketing, communications, and sales. Manager of the MSU-NCR Sales Research Project, under the direction of Dr. W. J. E. Crissy, who wrote The Psychology of Selling, used in the basic NCR sales training schools.

His experience includes work in marketing strategy and sales compensation problems for major U.S. companies at McKinsey & Company, Inc., and 7 years of personal selling experience with the Prudential Insurance Company of America where he won a number of awards, including the Pru's National Sales Leader award for selling over a quarter of a million dollars of life insurance in one month.

APPENDIX G

DERIVED STATISTICS

DERIVED STATISTICS

To locate the derived statistics for a Table X in Chapter IV, simply turn to the table in Appendix G entitled "Derived Statistics For Table X." Before doing so, however, the reader may wish to review the following list of (statistical) symbols used in this appendix and not defined elsewhere:

M	The sample mean
N	Number of observations in a given sample
s^2	Sample variance
$\hat{s}^2$	Corrected variance; the unbiased estimator of the population variance from a sample.

Table 37

Derived Statistics For Table 7

School	N	M	Ns^2
3	30	32.7	1,690.8
2	45	38.7	6,327.3
1	38	35.3	4,315.2

Table 38

Derived Statistics For Table 8

Test Point	School	N	M	s^2
	3	30	2.37	1.15
2	2	45	1.91	0.85
	1	38	2.13	1.01
	3	30	2.66	1.85
3	2	45	2.98	1.52
	1	38	2.84	1.87
	3	30	1.57	0.44
4	2	45	2.07	1.21
	1	38	1.97	0.88
	3	30	2.30	0.81
5	2	45	2.76	1.95
	1	38	2.47	1.58
	3	30	2.43	1.40
6	2	45	2.42	0.96
	1	38	2.32	1.15
	3	30	2.43	1.40
7	2	45	2.93	2.22
	1	38	3.05	1.80
	3	30	1.83	0.35
8	2	45	2.57	1.40
	1	38	2.58	1.08
	3	30	1.70	0.54
9	2	45	2.69	1.94
	1	38	2.26	1.36
	3	30	2.06	0.69
10	2	45	2.47	1.48
	1	38	2.32	1.20

Table 38 (Continued)

Test Point	School	N	M	s^2
	3	30	1.80	0.62
11	2	45	2.36	0.97
	1	38	2.26	0.83
	3	30	2.33	0.71
12	2	45	2.60	1.09
	1	38	2.34	0.98
	3	30	2.30	1.61
13	2	45	3.09	3.35
	1	38	2.26	2.21
	3	30	2.10	0.35
14	2	45	2.04	0.46
	1	38	1.87	0.69
	3	30	1.83	0.61
15	2	45	1.84	0.81
	1	38	1.66	0.63
	3	30	1.67	0.34
16	2	45	2.31	1.29
	1	38	1.74	0.91
	3	30	1.36	0.38
17	2	45	1.69	0.56
	1	38	1.32	0.73

Table 39

Derived Statistics For Table 9

Class	N	M	Ns^2
2A	23	31.6	2,191.9
1A	18	32.4	1,297.8
2B	22	46.0	1,959.1
1B	20	37.9	2,638.9

Table 40

Derived Statistics For Table 10

School	N	M	Ns^2
3	30	23.5	930.0
2	45	24.8	47.2
1	38	25.8	1,088.3

Table 41

Derived Statistics For Table 11

Class	N	M	Ns^2
2A	23	20.1	1,085.8
1A	18	25.3	1,080.0
2B	22	29.7	808.6
1B	20	26.3	835.8

Table 42

Derived Statistics For Table 12

School	N	M	Ns^2
3	30	9.2	1,665.0
2	45	13.7	1,215.0
1	38	9.3	15,000.0

Table 43

Derived Statistics For Table 13

Class	N	M	Ns^2
2A	23	11.6	420.8
1A	18	6.6	452.6
2B	22	15.9	594.2
1B	20	11.7	962.2

Table 44

Derived Statistics For Table 14

School	$\hat{s}^2$	N[a]
3	6.49	432
2	7.97	656
1	7.90	576

[a] As defined earlier, N stands for the number of observations in a given sample. In this case, N equals the number of subjects providing usable responses times the number of test points.

Table 45

Derived Statistics For Table 15

School	N	M	s^2
3	30	49.6	153.4
2 (B)[a]	22	53.3	139.3
1 (B)[a]	20	53.2	216.8

[a] Statistics for B classes only.

Table 46

Derived Statistics For Table 16

School	N	M	s^2
3	30	12.0	27.1
2 (B)	22	12.1	36.3
1 (B)	20	10.1	26.2

Table 47

Derived Statistics For Table 17

School	N	M	s^2
3	26	6.2	6.0
2	41	6.9	7.6
1	35	5.9	5.6

Table 48

Derived Statistics For Table 18

School	N	M	s^2
3	30	12.8	9.2
2 (B)	22	12.9	6.3
1 (B)	20	13.9	6.8

Table 49

Derived Statistics For Table 19

School	N	M	s^2
3	30	7.9	13.9
2 (B)	22	7.7	9.7
1 (B)	20	9.4	12.9

Table 50

Derived Statistics For Table 20

School	s^2	N
3	7.7	448
2	9.1	704
1	7.3	624

Table 51

Derived Statistics For Table 22

Test Point	School	s^2	N
	3	.444	26
2	2	.475	43
	1	.509	38
	3	.317	30
3	2	.382	45
	1	.324	38
	3	.427	30
4	2	.407	44
	1	.497	38
	3	.477	30
5	2	.467	43
	1	.429	39
	3	.178	28
6	2	.633	45
	1	.198	40
	3	.545	29
7	2	.682	44
	1	.603	36
	3	.251	27
8	2	.140	40
	1	.179	39
	3	.245	28
9	2	.659	45
	1	.456	39
	3	.433	29
10	2	.248	45
	1	.399	40

Table 51 (Continued)

Test Point	School	s^2	N
	3	.035	28
11	2	.205	44
	1	.109	40
	3	.526	29
12	2	.678	43
	1	.510	38
	3	.477	30
13	2	.808	45
	1	.404	39
	3	.827	30
14	2	.640	45
	1	.555	38
	3	.848	30
15	2	.684	44
	1	.610	40
	3	.837	28
16	2	.936	44
	1	.706	37
	3	.882	28
17	2	1.028	44
	1	.859	39

Table 52

Derived Statistics For Table 24

Comparison	Standard Error Of The Difference
3-2	.060
2-1	.055
3-1	.062

School	N[a]
3	460
2	703
1	618

[a] Since the number of usable responses varies between test points, these numbers need not be evenly divisible by 16.

Table 53

Derived Statistics For Tables 26 And 27

School	N	Ns^2	
		Time-I	Time-II
3	30	733.0	423.0
2	45	2,221.5	1,519.1
1	38	1,445.1	857.1

Table 54

Derived Statistics For Table 28

School	N	Ns^2	
		Time-I	Time-II
3	30	111.9	220.2
2	45	363.0	688.4
1	38	393.9	659.4

Table 55

Derived Statistics For Table 29

School	N	Ns^2	
		Time-I	Time-II
3	30	507.9	151.5
2	45	1,421.9	472.0
1	38	637.5	721.5

Table 56

Derived Statistics For Table 30

School	s^2		N In
	Time-I	Time-II	Time-I Or Time-II
3	2.67	3.59	216
2	3.24	4.54	328
1	3.26	4.43	288

Table 57

Derived Statistics For Table 31

School	N	Time-I	
		M	Ns^2
3	26	3.4	169.6
2	41	3.8	67.6
1	35	3.1	64.3

School	N	Time-II	
		M	Ns^2
3	26	2.8	368.3
2	41	3.1	189.2
1	35	2.7	100.7

Table 58

Derived Statistics For Table 32

School	s^2 Time-I	s^2 Time-II	N In Time-I Or Time-II
3	2.88	4.66	224
2	3.85	5.23	352
1	3.19	4.15	312

Table 59

Derived Statistics For Table 33

School	N	s^2 Time-I	s^2 Time-II
3	30	58.5	67.4
2 (B)	22	38.7	49.5
1 (B)	20	61.6	39.0

Table 60

Derived Statistics For Table 34

School	N	s^2 Time-I	s^2 Time-II
3	30	8.5	8.4
2 (B)	22	12.6	13.9
1 (B)	20	9.0	11.4

Table 61

Derived Statistics For Table 35

Comparison Between Time-I And Time-II For School	Standard Error Of The Difference	N
3	.094	228
2	.075	353
1	.082	303