References


FOUR

THinker TOYS: CONCEPTS, PROPOSITIONS, AND THEORIES

This chapter, like the preceding chapter, is intended primarily for the reader who has not previously been exposed to a discussion of concepts, propositions, and theories. Most attention is given to concepts, which are the building blocks of theories. Theories are defined as explanations—as opposed to descriptions—of events in terms of a set of at least partially interrelated propositions. The propositions consist of a stated relationship between two or more concepts. Thus a theory may also be viewed as a system for ordering concepts in a way that produces understanding or insight.
CHAPTER FOUR: THINKER TOYS

Physical concepts are free creations of the human mind, and are not, however it may seem, uniquely determined by the external world. In our endeavor to understand reality we are somewhat like a man trying to understand the mechanisms of a closed watch. He sees the face and the moving hands, even hears it tick, but he has no way of opening the case. If he is ingenious he may form some picture of a mechanism which could be responsible for all the things he observes, but he may never be quite sure his picture is the only one which could explain his observations. He will never be able to compare his picture with the real mechanism and he cannot even imagine the possibility of the meaning of such a comparison.

Albert Einstein

The construction of theory has certain similarities to the construction of a home. The theory's foundation is composed of building blocks, or concepts. The formation of propositions from these concepts proceeds as does the mortaring of blocks together, each related to certain of the others to form the whole. The result is a model home, one that should be capable of being remodeled, with areas added or deleted as a body of knowledge (or a family) evolves. As a home acquires its meaning or purpose through the personality of the family living there, it grows in richness and becomes a theory. It is more than just a set of blueprints or a full-scale expression of the blueprints. Theories differ from models in that they explain rather than simply reflect or replicate (as a model does).

The analogy can be carried further. For example, just as a decision must be made as to the suitable location for the home (rural area, suburbs, central city), so the theory builder must position the marketing theory within its proper context. The quality of materials must also be carefully considered: Are the concepts "rich" in terms of the inferences that can be drawn from them and in their practical implications for the marketing manager?

The basic evolution of the plan is significant. Does the designing of the home progress from the exterior style inward to the electrical and heating systems that support the operation, or from the interior out? In theory construction, does the underlying reasoning move through a chain of logically sequenced points toward a conclusion, or backward to a cause? The former process sometimes termed deductive, and the latter, inductive.

Sole reliance upon deductive reasoning could potentially result in many action-oriented implications; however, a failure to analyze causes can lead to a fallacious marketing strategy. A manager acting on the basis of such a model may move forward with a marketing program built upon faulty assumptions and a lack of awareness of the causes of the predicted behavior. Such a thinking methodology resembles the engineering of a fast moving train, with signals being ignored along the way and an inability to return to the origin if the need arises.

On the other hand, total reliance on inductive reasoning may lead to a continual analysis and questioning of causes, with little or no action taken. A combination of the two methodologies (found, for example, in syllogistical reasoning) is more useful. Such reasoning is based on a premise, a statement, and a conclusion. The premise is a particularly important part of this trilogy. If the assumption base upon which conclusions are made is in error, the validity of the theory is brought into question. Consider the proposition illustrated in Figure 4.1.

The proposition is based on the premise that the time involved in decision making is a function of the number of people present. The statement that many persons are in attendance at a meeting would therefore lead to the conclusion that consensus would be obtained only at great length. Obviously, this conclusion is oversimplified and does not take into account important factors such as the cohesiveness of the group and the presence or absence of key decision makers who wield influence within the network. One proposition is as good as another, if sound reasoning does not make the difference.

Because of the importance of understanding modes of reasoning, considerable space will be devoted to them in subsequent chapters. It is our purpose in this chapter to examine the tool kit that the theoretician uses in constructing a theory.

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Figure 4.1. The fewer the participants, the earlier the agreement. In all meetings, keep the number to a minimum. . . . You'll go home much earlier.


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The Basic Tools

Figure 4.2 illustrates the inner workings of a model—the relative position of concepts, propositions, and theories to one another.

Three theories are depicted, including the one under construction, theory I. It contains a concept, D, which has been used in theory III. Here, however, D is being used differently because it is being related to concept A, which was not a part of theory III.

The relationship between concepts B and C appeared in the same propositional form in theory II. However, theory II was very specific and dealt with only one context, whereas theory I is general, covering several marketing contexts.

The propositions in our theory are specific as to direction of relationship and the nature of the relationship (that is, positive or negative). Some concepts are not related (such as C and D).

A theory is therefore comparable to the human organism. The nerve centers and organs form basic units but must be joined (via the spinal cord and circulatory system) to contribute toward the organism’s purpose. Basic cells exist in positive and negative polarities. However, whether the theory has life depends largely upon the competence and creativity of the builder.

An Illustration

A brief example of the use of concepts and propositions will be given. Special emphasis will be given to concepts since they are so basic to theory construction.

In marketing, we are interested in developing theory that aids in the explanation, prediction, and/or control of marketplace behavior. For example, the rise in consumerism has prompted marketers to seek out causes of the dissatisfaction expressed by consumers. One set of questions relating to this issue revolves around consumer complaint behavior: “Are complainers different from noncomplainers?” “How do the situational and individual differences affect complaint behavior?”

We have a choice to make between two distinct approaches to developing a theory of consumer complaint behavior. The first option is to develop at the outset a global theory, including all those variables thought to be relevant. The well-known Howard-Sheth model is one such attempt at building a comprehensive theory of buyer behavior. The second option is to begin with a “small component part” theory and proceed to gradually add other variables. The beginnings of such a simple theory are depicted in Figure 4.3.1

With either option, concepts must be first defined and then put into a form by which they can be measured (discussed later as “operationism”). For example, interpersonal trust, the individual difference variable in this first fragment of a theory of complaint behavior, is defined by the psychologist Rotter as “an expectancy held by an individual or a group that the word, promise, verbal, or written statement of another individual or group can be relied upon.” 1 A scale developed by Rotter from social learning theory and used extensively in psychology operationalized this concept.

Figure 4.3. The embryo of a theory of complaint behavior.

The second concept, attribution of responsibility, is the situational variable in the theory. If a person perceives that others are responsible for the situation (such as an unsatisfactory buying experience), an external attribution is made. When blame is attributed to oneself, the attribution is internal.

Why were these concepts chosen, and how are they related to complaint behavior?

Since marketing is an exchange process, a central element is trust between buyer and seller. When dissatisfied with a marketplace experience, a consumer would be unlikely to complain if the seller could not be trusted to respond and to take some action. The relationship of trust and the tendency to complain is posited in the following proposition: "As the degree of trust increases, the tendency to take a complaint action increases. That is, those low in trust should complain less than those high in trust."

The second proposition relates attributions and complaint behavior, with an inverse relationship specified between an internal attribution and the tendency to complain. If a consumer feels personally responsible for a problem with a product, complaint action is less likely.

Obviously, the next step is to extend the theory by evolving other concepts and propositions, and to test these propositions empirically. Subjecting marketing theory to "real world" tests is essential. Even well-established (or dominant) paradigms need to be tested in a variety of contexts. Such paradigms have a way of persisting (until an "interesting theorist" comes along). The established theory may be abruptly reminded that it has become somewhat smug and could stand an "awakening" (of which the "rude" variety is illustrated in Figure 4.4).

The dominant thought in marketing, for example, has centered around a unit, or individual, paradigm. As will be noted later, theorists are now advancing toward a view which considers the interrelatedness of the buyer and seller. The choice of the trust concept in the preceding complaint behavior example illustrates this emphasis on interdependencies.

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**Figure 4.4.** A real world awakening shakes a dominant paradigm.


*Valle and Lawther, op. cit., p. 2.

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**Concepts**

As noted earlier, concepts are the groups of characteristics upon which theories are constructed. An additional way of depicting their basic role appears in Figure 4.5.

Concepts have been subject to a debate among philosophers, similar to the controversy over causality discussed earlier. It is not unusual difficult to state what a concept *does*; it represents, identifies, and recognizes. For example, innovativeness represents "the degree to which an individual is relatively earlier in adopting new ideas than other members of his social system." Knowing what a concept *is*, or where it exists, is more elusive. The innovator exists, but only in relation to others in the social system. This functional interrelatedness of concepts is what gives them significance and allows them to be communicated. Concepts reside in the world of thought and enable us to make sense of a complex universe filled with nonrecurring experiences. To raise a question about the concept "innovativeness" is important in terms of clarifying and refining the concept. However, as Caws points out, "...this is a metascientific activity, having much the same relation to science proper as a piece of scaffolding has to a building which is under construction, so that the interest in concepts is an intermittent one."

**Functions of Concepts**

The position known as instrumentalism examines concepts in light of the types of problems with which they commonly deal and the ways they contribute to solving these problems. Language is viewed as an instrument used in performing...
an action. Therefore, a concept is determined by the context in which the action is to be taken.  

We can examine this position by discussing the marketing concept of "product class." The marketer needs to know whether the consumer has a well-defined product class concept to accommodate the product. The product class involves more than a grouping of brands. For example, a new company entering the wine market must position its brand among those currently being offered. Its rosé must be positioned in relation to a relatively lower-priced Gallo Vin Rose and a relatively higher-priced Mateus, among others. However, this is only part of the buyer's conceptual structure. At a more general level are product class concepts and the definition of the broad category that subsumes wine. This higher level of the hierarchy, depicted as level (d) in Figures 4.6 and 4.7, is affected by many variables. Figure 4.6 represents a possible conceptual structure for a wine consumer in California, where wines are purchased at the supermarket and are physically positioned on shelves near soft drinks and other beverages. The buyer from Pennsylvania, on the other hand, might have the conceptual structure depicted in Figure 4.7. Wine in this case must be purchased in a state-controlled liquor store. Thus, the meaning, or conceptualization, of wine in the product class may be quite different, affecting frequency of purchase, quantity bought, and attitudes toward the product (and thus having implications for marketing strategy).

Therefore, while a concept is stated in basic terms, it should be abstract and general enough to fit many different contexts. The innovativeness concept mentioned earlier, for example, has relevance not only for various marketing situations, but also across many disciplines (for example, innovativeness has been studied in rural sociology, in education, in medicine, and among primitive tribes).

![Figure 4.6. Conceptual structure for wine.](image)

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Terminology

Concepts are stated in scientific terms. Kaplan distinguishes three types of terms: notational, substantive, and auxiliary. Notational terms serve as a shorthand method of expressing concepts. Such terms both precede and follow the process of conceptualization. By stating "Let y = f(x)," we facilitate the communication of a concept and provide direction for its use (e.g., taking derivatives). However, notational terms are basically abbreviations and can be replaced. On the other hand, substantive terms are those which "cannot be eliminated without loss of conceptual content." They are fundamental to the concept. For example, if we eliminated the term "adopting" from the definition of innovativeness (page 77), it would lose its meaning. Or if we eliminated the term "expectation" from a definition of consumer satisfaction, the concept would assume a very different meaning. Auxiliary terms are those which make the grammatical meaning of the language clear or play a minor role in notation.

Among the substantive terms, important differences exist. Observational terms are those which can be directly observed. "Brand choice" is an example of a term that is easily verified. One can observe the shopper in the supermarket selecting "Brand X" rather than "Brand Y" and paying for it at the checkout counter.

Indirect observables require inferences or indirect observations. Why did the consumer select that particular brand? If we ask the buyer to reconstruct his or her information processes leading to the selection, will we obtain an accurate report? We may be able only to infer a memory search when no observable sources (such as point-of-purchase displays, unit price information, and label information) are consulted. Similarly we may only infer levels of expectation

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3Kaplan, op. cit., p. 49.
4Ibid.
and post purchase satisfaction based on the degree of hesitancy a consumer displays in selecting a given brand.

Constructs are terms that cannot be observed through either direct or indirect means but that can be applied on the basis of observables. Nagel's discussion of ideal or "limiting" concepts is relevant here. For example, the notion of perfect elasticity may be suggested by empirical subject matter. It is not amenable to experimental observation since it may not accurately describe an event. However, by using limiting concepts, we can formulate theories in a relatively simple fashion that can be tested by mathematical analysis: "Despite the fact that a theory may employ simplifying concepts, it will in general be preferred to another theory using more 'realistic' notions if the former answers to the purposes of a given inquiry and can be handled more conveniently than the latter."\(^{12}\)

In reference to any theory, it is the relationship of its constructs that is significant. "A theoretical term has systemic meaning: to discover what it is up to we must be prepared to send not a single spy but whole battalions."\(^{13}\) In areas such as marketing, which do not have well-developed paradigms, the systemic relevance or meaning of concepts leads to Catch-23 or the paradox of conceptualization. Charles O. Jones has cleverly described this situation:

Yossarian looked at the professor soberly and tried another approach. "Does Orr have a theory?"

"He sure does," Professor Daneek responded.

"Then can you approve his dissertation?"

"I sure can. But first he has to make his concepts explicit. That's part of the rule and we follow it scrupulously."

"Then why doesn't he?"

"Because he has a theory," Daneek said calmly, "and you can't start with a theory."

"I see. He should have started with a set of concepts."

"That's right. As Abraham Kaplan puts it: 'Proper concepts are needed to formulate a good theory."

"Well," Yossarian sighed, "all he has to do is turn things around and then you can approve his dissertation."

"No. Then I can't approve his dissertation."

"You mean there is a catch."

"Sure there is a catch," the professor replied. "Catch-23. Anyone needs a good theory to arrive at the proper concepts."

The paradox of needing to develop good concepts in order to develop good theories which are needed to develop good concepts is solved by the process of approximation: "The better our concepts, the better the theory we can formulate with them, and in turn, the better the concepts available for the next, improved theory."\(^{14}\) Concept development is very important in marketing. It is also very risky in that it requires "doing before knowing," that is, plunging into the intellectual or substantive problems of the marketing discipline as if we really know what we are doing and, in so doing, improving what we know.

We shall now turn to some methodological problems concerning marketing concepts.

The Locus Problem. The locus problem is that of choosing the subject matter for inquiry in marketing and the conceptual structure within which to formulate hypotheses.

The issue of selecting subject matter is generally a personal one. We choose a subject that is intriguing to us. Or a client may present a problem whose solution requires the kind of skills we find rewarding to apply. Different people differ greatly in what they find intriguing and rewarding. It is sometimes useful to distinguish between process-oriented interests and context-oriented interests. For example, some individuals are primarily interested in such processes as the diffusion of innovations, interpersonal exchange, socialization, communication, and so forth independently of what innovations are involved, who is participating in an exchange relation, who is becoming socialized into what groups, what communication content and function are, and so forth. What is of primary interest is that the process is occurring. The context in which it occurs is of considerable importance for understanding the process, but for the process-oriented person the context is not quite as intellectually intriguing as the process itself.

The context-oriented person may be primarily concerned with industrial marketing, the aviation industry, fashion, health care marketing, and so forth. Where the process-oriented person may examine these subject areas for manifestations of a particular process, the context-oriented person will often focus on several different processes as a way of understanding better how firms purchase major pieces of equipment, why consumers reject particular fashions, how consumers evaluate and select among alternative health plans, and so forth.

The distinction made here between process- and context-oriented people is one of convenience only. Few individuals are concerned only with a given process and have no favorite contexts in which to pursue this process. Similarly, few people are committed exclusively to a single context without any favorite process for guidance in understanding that context. In fact, many individuals have one or more processes and contexts that especially intrigue them. The subject matter they select will tend to be where the joint challenge and payoff are greatest. For example a person may be equally interested in the petrochemical industry and grain industry as well in the process of organizational buying and corporate


\(^{13}\) Kaplan, op. cit., p. 37.

policy formulation. A variety of circumstances such as an energy crisis, a Supreme Court decision on patent rights, and access to boards of directors may result in a high priority being given to the study of corporate policy formulation in the petrochemical industry.

The choice of conceptual structure within which to formulate hypotheses is affected in part by our favored subject matter. There is likely to be a prevailing set of ideas or way of viewing different subject matter such as corporate policy formulation or apparel innovation diffusion or attitude change among health care professionals. We may feel comfortable with the prevailing set of ideas and use them to help formulate our hypotheses, or we may find it appropriate to be "interesting" and deliberately challenge these ideas. In either case we are influenced by prevailing ways of viewing processes and contexts.

Often, too, as we work with different processes and contexts, we find conceptual structures developed in one setting which may be useful in another setting. For example, a conceptual structure originally developed for understanding innovation diffusion in agriculture has been found useful in the study of innovation diffusion in such contexts as the apparel industry and steel industry. Persons outside of marketing are finding the concepts and tools of marketing useful in their contexts. Similarly, the exchange paradigm developed in sociology and social psychology has had a considerable impact on recent thinking about marketing phenomena. How conceptual structures for dealing with issues in one subject area may eventually influence the conceptual structure used for dealing with other subject areas, either quite by accident or through deliberate broadening efforts, is an interesting topic in the sociology of knowledge which goes beyond our immediate concerns here.

The conceptual structures within which we formulate hypotheses will be a function of several factors. In no special order of importance, these factors include the following.

1. The discipline we are trained in: an anthropologist may be quite unlikely to use conceptual frameworks developed in biophysics and social biology despite possible benefits these areas may offer.

2. The conceptual structures considered legitimate by peers who will evaluate our work: although certain theories in high energy physics may offer useful analogies for the study of population change and hence be of concern to business chains locating new retail sites, a board of directors or journal referee might be reluctant to accept research findings that were guided by an unfamiliar framework.

3. What we are aware of or knowledgeable about outside our own discipline: only if we are aware of research or agenda setting in state legislatures can we use conceptual and methodological frameworks developed in that area to facilitate our understanding of corporate decision making, stockholder meetings, or even family decision making.

4. What has worked for us in the past: even when confronted with a new situation, say a new context in which to work, we quite naturally at first apply frameworks that have been fruitful in our prior work.

The reader should be able to extend this list considerably. In fact, doing this is suggested as an exercise.

Level of Abstraction. Concepts can be expressed in very general or in very specific terms. Table 4.1 illustrates the problem of specifying concepts. The researcher must carefully define at what level of abstraction a concept is formulated. If a scale worded in a general way is used to measure opinion leadership in fashion, and a specific scale is used for opinion leadership in culinary matters, methodological problems could result from noncomparability of data.

Ideal Types. An ideal type is a concept that does not function as either a directly or indirectly observable term. Weber notes, however: "If one perceives that concepts are primarily analytical instruments for the intellectual mastery of empirical data and can be only that, the fact that [certain] concepts are necessarily ideal types will not cause him to desist from constructing them." Rogers' conceptualization of the norms of the social system relevant to diffusion consists of two ideal types: traditional and modern. These types provide a framework for analysis and are not to be construed as depicting what "ought" to be. Individuals in a social system characterized by modern norms are more cosmopolitan, oriented toward change, scientific, rational, technologically developed, and empathetic. A traditional social system consists of individuals with the opposite attributes. Rogers and Shoemaker do advise caution in dealing with these conceptualizations as dichotomies, however; actual occurrences will lie somewhere on a continuum between these two types.

Operationism. Operationism refers to the requirement that each concept correspond to operations that define its application and give it scientific meaning. The classic example is intelligence, a concept that is measured throughout the application of intelligence tests. In the physical sciences, concepts can often
Table 4.1

<table>
<thead>
<tr>
<th>General</th>
<th>Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Designated Opinion Leader</strong></td>
<td><strong>Self-Designated Fashion Opinion Leader</strong></td>
</tr>
<tr>
<td>1. My friends or neighbors often come to me for advice.</td>
<td>1. Several of my friends asked my advice about whether the midi would become a fashion or not.</td>
</tr>
<tr>
<td>2. I sometimes influence what my friends buy.</td>
<td>2. I told my friends that the midi was a recurrent style from yesteryear and that it would be unflattering and make most women look older.</td>
</tr>
<tr>
<td>3. People come to me more often than I go to them for information about brands.</td>
<td>3. At coffee breaks my friends tended to ask my opinion of the midi more often than I initiated the conversation about it.</td>
</tr>
<tr>
<td>4. I feel that I am generally regarded by my friends and neighbors as a good source of advice about clothing fashions.</td>
<td></td>
</tr>
<tr>
<td>5. I can think of at least two people whom I have told about some clothing fashion in the past six months.</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2
An Alternative Way to View the Phenomenon of Age


table 4.2 (continued)

Compared to how people around my own age feel about life in general, I am:
Much more optimistic
Somewhat more optimistic
About as optimistic as they are
Somewhat less optimistic
Much less optimistic

The things that I do now are:
Much more interesting than they were in the past
Somewhat more interesting than they were in the past
About as interesting as they have been in the past
Somewhat less interesting than they were in the past
Far less interesting than they were in the past

As I grow older, things seem:
Much better than I thought they’d be
Somewhat better than I thought they’d be
No better nor worse than I thought they’d be
Somewhat worse than I thought they’d be
Much worse than I thought they’d be

Most of the things I do are:
Very boring and monotonous
Somewhat boring and monotonous
So-so
Somewhat exciting and varied
Very exciting and varied

I tend to make plans for things I’ll be doing:
A few months from now
A month from now
A week or so from now
A few days from now
Today or tomorrow

The lot of the average person is:
Much better now than it has ever been
Somewhat better than it has ever been
About the same now as it has been
Somewhat worse now than it has been
Much worse now than it has ever been

in terms of environment versus heredity. While both concepts are valuable, the error in terms of theory occurs by one's considering them separately; that is, when environment is determined as the “cause” of a behavior, heredity is ruled out (or vice versa). The research psychologists who made this false assumption—work spanning a 30-year period—has therefore been discarded. Traces of this thinking still permeate modern psychology. Rose states that psychologists:

...tend to pose questions about the sources of human behavior in terms of combinations of discrete hereditary and environmental influences. That is, to use an analogy from chemistry, they unwittingly conceive of concrete human behaviors as mixtures of forces from hereditary and environmental sources, whereas they might often be more accurately conceived of as compounds of such forces. Mixtures retain the characteristics of their constituent elements, whereas compounds usually exhibit entirely new characteristics and properties.

For example, social class has been and often still is considered to be a mixture having three component parts: level of education, type of occupation, and financial status. Certainly the use of this concept in the marketing literature has reflected a mixture image of social class. When viewed as a compound, social class would be construed as a group of people sharing similar levels of prestige and similar and related beliefs, attitudes and values. All of these may be strongly influenced by level of education, occupation, and wealth, but social class is not a combination of these factors but rather a fusion of effects resulting from these and other factors. This fusion becomes a unique entity with its own character which does not resemble any of its contributory factors.

Pragmatism. A pragmatist, as opposed to an operationist, looks for meaning in statements in terms of what they signify: “what counts is not origins, but outcomes, not the connections with experience antecedently given but those which are yet to be instituted.” Meaning is interpreted as being a plan of action. Kaplan notes that pragmatists have been severely misunderstood because of the narrow definition given to the word “action.” Critics of pragmatism have contrasted action with contemplation, and practice with theory. Kaplan states:

The “usefulness” that pragmatism associates with truth is as much at home in the laboratory and study as in the shop and factory, if not more so. If we are to continue to speak with William James of the “cash value” of an idea, we must be careful to have in mind a universally negotiable currency, and especially one that circulates freely in the world of science itself.

Marketing research is recognized as producing actionable results. The combination of this quality with well-grounded theories from the behavioral sciences provides a framework for substantive, creative, and meaningful theory development.

Concept Validity. “Validity” is derived from a term denoting strength. The scales that we use to measure concepts form one basis for establishing validity. Also, we must determine whether we are actually measuring what we set out to study. Table 4.3 illustrates the various types of concept validity. An extensive treatment of these types may be found elsewhere.

Two major methods are available for assessing convergent and discriminant validity. The multitrait, multimethod approach developed by Campbell and Fiske represents pioneering work in this area. Using this method, the researcher analyzes the pattern of correlations among two or more traits (empathy with others, love for self, and regard for others could be traits of the concept “compassion”) measured by two or more methods (Likert, Guttman, and Thurstone scaling). Several criteria are used to establish convergent and discriminant validity. Bagozzi notes some problems inherent in the method, however, including the lack of criteria to determine the extent to which the operationalization of the concept measures it (that is how well do these measures of compassion “get at” what compassion really is), the adequacy of the whole trait-method matrix, and the magnitude of variance caused by trait versus method.

The causal modeling approach takes the above criteria into account. Solutions of a system of structural equations allows determination of convergent and discriminant validity. Bagozzi asserts:

Not only can it be used to perform a traditional multi-trait multi-method matrix analysis, but it does this in a more rigorous and less ambiguous way. Moreover, causal modeling furnishes one with a versatile means to investigate other forms of validity such as criterion-related, predictive, and nomological validities. An important point to note is that causal modeling offers the advantage over traditional methods that measurement error is taken into account explicitly.

The reader is encouraged to consult these and other references for additional information on the critically important subject of validity assessment.

3Kaplan, op. cit., p. 42.
4Ibid., p. 44.
5Ibid., p. 133.
6Ibid., p. 133.
7Ibid., p. 133.
8Ibid., p. 133.
9Ibid., p. 133.
10Ibid., p. 133.
11Ibid., p. 133.
12Ibid., p. 133.
In summary, concepts are the groups of characteristics upon which theories are constructed; they have significance through their functional interrelatedness. They are stated formally and are subject to several methodological considerations. The concepts give shape to the theory (its morphology), whereas the relationships specify the underlying process, or mechanism, through which the theory becomes a living organism. This brings us to the topic of propositions.

**Propositions**

Propositions are functional relationships between or among concepts. They appear in every model or theory, in a variety of forms. Propositions may be explicit or implicit, general or specific, of practical import (that is, useful to the marketing manager in decision making) or not directly applicable but possibly of value because a necessary linkage is formed in the overall model. The following hypothetical example illustrates the role of proposition formation in theory building.

**Creative Consultants, Inc.** Creative Consultants, Inc., a firm composed of persons with expertise in promoting the fine arts, has been retained by the Rochester Museum Association. A meeting is in progress in the Board Room, with directors from five museums present. Lydia Fuller, the dynamic "mastermind" behind the meeting, is presenting her purpose for inviting Herb Kaplan, head of Creative Consultants, to advise them:

"The success of the King Tut exhibit has shown us that there are a lot of ways to make fine arts profitable. We've asked you here to explore these. We've seen the museums in other cities capitalize on this tour. Although we can't attempt anything on that scale, there are some excellent smaller foreign exhibits available. We're hoping you can suggest some ways we can develop similar programs on a more limited scale to meet our needs."

Herb Kaplan responded by first demonstrating to the group some slides of an African art exhibit currently touring the United States. The exhibit was not doing well, but he attributed the lack of patronage to the absence of a "good system" (theory) upon which appropriate promotional plans could be based. He indicated that he had, however, isolated some interrelated ideas (propositions). Just as Kaplan placed his first transparency, labeled "Marketing Concepts," on the overhead projector, a disgruntled voice from the back of the room boomed out:

"Wait a minute, what does marketing have to do with a service like ours? We function for those who appreciate art—why should we go out and try to attract crowds of people? If the art's good, people recognize it and come anyway. How will our regular patrons react when they see us trying to push Rembrandt in the same way the latest rock star might be promoted?"
Ripples of somewhat uncertain laughter permeated the room. Obviously most of the participants felt a little uncomfortable at mixing art and marketing, even though it was an inevitable part of their lofty role.

Herb Kaplan had encountered the "temperamental artist" (or the aspirant thereof) many times since Creative Consultants' formation. He explained how art satisfies an important consumer desire for aesthetic pleasure, culture, and "experience." A sound marketing program served as the link between the two interested parties.

Myra Felden, a museum director from Indianapolis, agreed that marketing was needed. She said that she had noted that special exhibits, especially those open at night, seemed to draw a lot of businessmen and professionals. Mel Blank, from Buffalo, agreed with Myra and noted that such persons were typically too busy to spend much time at museums but might show up for a program that really caught their attention.

Herb Kaplan responded, "Myra and Mel, what you've just said are really propositions that can form the building blocks for describing your market. Once you have this market described, you'll have the basis for selecting media. Myra, you've defined several of your needs for information—who are your target markets? What factors in the Indianapolis market are most related to museum patronage of special events? Your working proposition seems to be that special exhibits would appeal to professionals and managers who wouldn't otherwise frequent the museum. And Mel, you've added an explanatory note to Myra's proposition—that time constraints and a heavy activity schedule would keep such persons away unless a special stimulus got them into the museum."

Participants continued to state concepts and propositions worth investigating. Kaplan noted each carefully, and a second meeting was scheduled to discuss the theory thus constructed and to assign responsibility for various phases of the project.

The Creative Consultants, Inc., case demonstrates that propositions are used by practitioners whether or not they are recognized as such, and that empirical testing is essential if any reliance is to be placed on the marketing theory formed from these statements of interrelationships. The locus problem, or proper context for marketing strategy based on theory, is also illustrated.

Propositions as Elements of Theory

Propositions, then, represent an advancement beyond concepts toward theory formation and testing. A marketing example would be Bagozzi's study of performance and satisfaction among industrial salespersons.28 The interrelation-


ship between two concepts—performance and satisfaction—is explored. Bagozzi outlines four possible ways of viewing the nature of this relationship: (1) performance causes satisfaction; (2) satisfaction causes performance; (3) the two are reciprocally related; and (4) performance and satisfaction are not related causally, so any empirical association is spurious. In order for managers to effectively motivate and understand their sales forces, they should know the nature of this relationship. Based upon previous research and the logic of balance theory, Bagozzi hypothesizes that job performance influences job satisfaction (relationship 1 above), but not vice versa (relationship 2), and selects three individual difference variables to use as co-variants (to test possibility 3 above). Figure 4.8 shows the causal model.

Hypotheses are stated as follows:

H1: Job performance will be positively associated with job satisfaction.
H2: The greater the value placed on specific tangible and nontangible rewards associated with the job, the higher the performance of activities leading to these rewards and the greater the satisfaction with subsequent attainment of these rewards.
H3: The greater the task-specific self-esteem, the higher the performance of activities leading to valued outcomes and the greater the subsequent satisfaction with achievement of these outcomes.
H4: Verbal intelligence will be positively associated with performance.

Table 4.4 shows how the variables were operationalized or measured. The first three hypotheses were supported by the data. Further tests should

![Figure 4.8. A causal model showing hypothesized relationships and predicting outcomes.](source)

then be made (using partial correlations) to determine whether the correlations are spurious. That is, are there antecedents that affect both the cause and effect? The validity of such findings can be strengthened by one’s eliminating rival hypotheses and by further specifying the model. For example, if task-specific self-esteem is related to job performance, and job performance is related to job satisfaction, then what is the relationship (if any) between self-esteem and satisfaction? Replication of findings is important, but it is also important to test a large variety of possible relationships. As Stinchcombe notes: “As the number of similar tests to the theory increases, the number of alternative theories each new test eliminates becomes much smaller.”

Commentary on Theory

A theory is an interrelated set of concepts which explains an event or phenomenon. Technically, a simple proposition relating two concepts should be a theory. In practice, a theory is usually considered to be a collection of two or more interrelated propositions which either partially or fully explains an event. While a model may describe an event, a theory provides substantive explanation and understanding. Thus a theory contains a model. When a model goes beyond statistical or mathematical explanation and provides substantive explanation and understanding, it becomes a theory. Thus theorizing is the mental process of “acquiring explanations about why certain variations occur and why they do not.” It is not merely a matter of finding empirical relationships that happen to occur in the real world, but rather of learning the circumstances under which variation in variables brings about variation in other variables in a way that acquires multiple levels of generality.

A theory contains a good deal of speculation. However confident we may feel about a theory, ultimate proof is often elusive. There are sources of error in the measurement of concepts (variables) and our models of complex phenomena are often incomplete. When we add to these problems the fact that there always lurks the possibility of an alternative explanation we didn’t think of, then the idea of ultimate proof of a theory doesn’t make sense. Yet at the same time we do develop and use theories (see Chapter 6, for example), make judgments about their truthfulness or validity (see Chapters 7 and 8), and act upon these judgments.

Theories are as diverse in style and personality as the people who fashion them. The visitor to the Palace of Versailles can well imagine the grand theory of France in relation to the rest of the world that Louis XIV must have held. Other personalities weave middle-range theories or historical theories. History is rich in

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**Table 4.4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Dollar volume of sales each person achieved for the year</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>Measure 1—four-six point Likert items (Do you feel promotion opportunities are wider in jobs other than yours? Would you advise a friend looking for a new job to take one similar to yours? Do you feel your pay is as high in comparison with what others get for similar work in other companies? How satisfied are you with your general work situation?)</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Measure 2—four-six point Likert items (Do you feel it is as easy to demonstrate ability and initiative in your job as in others? Do you think that there is as much a feeling of security in your job as in others? Do you find your work challenging, exciting, and giving you a sense of accomplishment? How much control do you feel you have over your work activities such as number of calls required in a week, etc.)</td>
<td></td>
</tr>
<tr>
<td>Task-Specific</td>
<td>Measure 1—two nine-point and one five-point Likert items</td>
<td>0.77</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>Measure 2—three nine-point items</td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>Measure 1—four five-point Likert items</td>
<td>0.60</td>
</tr>
<tr>
<td>Motivation</td>
<td>Measure 2—four five-point Likert items</td>
<td></td>
</tr>
<tr>
<td>Verbal Intelligence</td>
<td>Thirty-item matched response scale</td>
<td></td>
</tr>
</tbody>
</table>

*Cronbach Alpha values were computed from the following formula (see Lord and Novick 1968): \( \theta = \left[ \frac{n(n-1)}{n(n-1)} \right] \left( 1 - \frac{\sum \sigma^2_i / \sigma^2_T}{} \right) \), where \( n \) = number of items, \( \sigma^2_T \) = variance of the total index, and \( \sum \sigma^2_i \) = sum of item variances.


theory, as is drama. For example, Arthur Miller vividly portrays alienation through the character of Willie Loman in *Death of a Salesman*. The fabric of this play is as much a theoretical statement as Bagozzi's structural equation model or Durkheim's famous sociological theory of egoistic suicide. Miller depicts the salesman's sense of alienation in an individualistic, competitive world; Bagozzi relates self-esteem to job performance; Durkheim relates individualism and commercial employment to higher rates of egoistic suicide.

As theory evolves, the expression becomes clearer and more complete. One way of viewing the evolution is as an upward spiral, with each movement upward being an expansion of consciousness or increased awareness of the total set of forces involved in explaining a particular phenomenon. The laws, or generalizations, that result from this process can be viewed symbolically. The apparently complex world of marketing (or physics, engineering, philosophy) can be analyzed through the laws which are its ingredients. Just as the universe manifests in geometric patterns with nature following a system of order, so too can any problem be viewed geometrically, as, for example, a triangle: with only two elements or conditions, the problem is incomplete; the third point completes the problem. For example, in reproduction, the male and female unite to form offspring. In electricity, the positive and negative poles of the battery unite to produce the spark. In marketing, the buyer and seller unite to form the exchange transaction or sale. Proposition formation serves as a completion of the triangle in which two concepts are related to form the third point; alone, they would have no power. When we recognize the universal nature of things and realize what we already know, then we can speak in terms of laws. By thinking symbolically at the conceptual level, we are more likely to evolve laws or generalizations.

**Summary**

Most of this chapter has been devoted to the topic of concepts, which are the basic building blocks of theories. These blocks are united to form propositions, which in turn are connected to form theories or explanations. Concepts, and whatever is subsequently done with them, are, in Albert Einstein's words, "free creations of the human mind." This is perhaps the single most important thing to consider while reading subsequent chapters. A wide variety of social or professional conventions exist for the development, testing, and use of concepts. These are simply guidelines for tinkering.

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