all maps look about the same, their meanings can differ considerably as well as their implications for marketing planning.

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CHAPTER 11

POSITIONING BASED ON LADDERING[1]

All the positioning approaches discussed previously locate products/services/brands/companies in terms of their coordinates in 2- or 3-dimensional "virtual" spaces. These spaces are then defined in terms of attributes that identify either locations in the space or axes of the map, or both. This results in a similar format for all positioning maps, which can produce a tendency for occasional users to interpret all maps in the same way, even though there can be major differences in the way the positioning spaces are constructed.

In contrast, a technique known as *laddering* produces a very different visual format as output. Strictly speaking, laddering is not a positioning technique in the ordinary sense and usage of that term. Rather, it was developed to gain an understanding of how consumers think about a product or service category or an activity. In the process of doing this, it attempts to identify the attributes that drive preference and choice within a category. It also reveals the linkages among these key attributes and the sequence in which they are used. In turn, this identifies one aspect of the "cognitive structure" or "decision-making structure" of a consumer. Once these attributes and linkages are understood, they can be used to form a positioning strategy based on a conceptual framework that is different from those of conventional positioning maps. Positioning strategy in this context is based on the translation of an attribute into the personally relevant reasons why it is important to the consumer.

[1]This chapter is based primarily on summary materials provided by Thomas J. Reynolds of Strategic Assessment, Inc., one of the early developers of this technique.

MEANS-END THEORY

Laddering technology is based on means-end theory, which attempts to establish a perspective about how a product, service, or activity relates to a consumer's personally motivating values.

> Image is a term frequently used to describe products and services, but the concept of image is vague so it is difficult to operationalize. Means-end theory provides for a relatively clear definition of image and a methodology to assess it. Put simply, image can be defined as "the set of meanings or associations with respect to a particular product or product class that a person has stored in memory" (Reynolds and Jamieson 1984).

A means-end chain purports to represent the *connection* between a product or service and a person. "Means" are derived from the attributes of a product or service and the consequences, both positive and negative, that are associated with usage. "Ends" are the outcomes desired by users, expressed in terms of their own personal values. Thus, means-end theory proposes 3 "levels of abstraction" in the way people think about a product/service:

- Attributes (A)—consisting of the physical features, ingredients, or characteristics of a product that are more objective in nature. They are used to describe a product.
- Consequences (C)—the results, outcomes, or benefits from using a product. These represent what the product does for the user.
- Values (V)—the ultimate or "real" reasons why a person uses the product, that is, how it helps him or her accomplish goals (either objective or subjective).

These 3 elements form a sequence ranging from product/service attributes, the most concrete, to consumer values, the most abstract: A → C → V. Hence, means-end theory proposes that people move "up the ladder of abstraction" in evaluating and using products and services. This is important because research has shown that values tend to drive preferences more than consequences, and consequences more than attributes for many product/service categories (Reynolds, Cockle, and Rochon 1990). These 3 elements, and the linkages among them, purport to show how people differentiate between alternative product/service options available to them prior to making a choice. In this way, means-end chains form the basis for developing positioning strategies (Gutman and Reynolds 1979).

Means-end theory also proposes breakdowns within each of the 3 major elements, resulting in 6 possible levels for most product/service categories. Definitions and descriptions of each of the 6 levels are shown in Figure 11.1. These provide further refinement of the levels-of-abstraction concept and allow even greater insight into a category. Examples of simple means-end chains for dog food, credit cards, and athletic shoes are shown in Figure 11.2.

LADDERING METHODOLOGY

Laddering is the *interviewing methodology* used to uncover the means-end chain used by a particular respondent. It attempts to uncover the full range of attributes, consequences, and values associated with a selected category of competitive products/services. For a particular individual, laddering elicits the personal reasons why a discriminating attribute is important to his or her decision structure. This is done by a series of directed probes, as described subsequently.

A laddering interview begins by asking a respondent to make comparisons between some competing brands in a category. For example, triadic sorting (which of three products/brands is most unlike the other two, and why) and preference differences (which of two products/brands is preferred, and why) are most often used, but other approaches may be used as well. Also, multiple approaches are often used to ensure that the most important distinctions are identified, because these are considered likely to lead to the most relevant ladders that reflect the decision process.

For example, a respondent might say that 2 brands of beer are different in terms of flavor, color, dryness versus full body, calorie content (light versus regular), and so on. One of these distinctions is selected as a starting point and the respondent is asked questions such as "Why is that important to you?" or "How does that make you feel?"

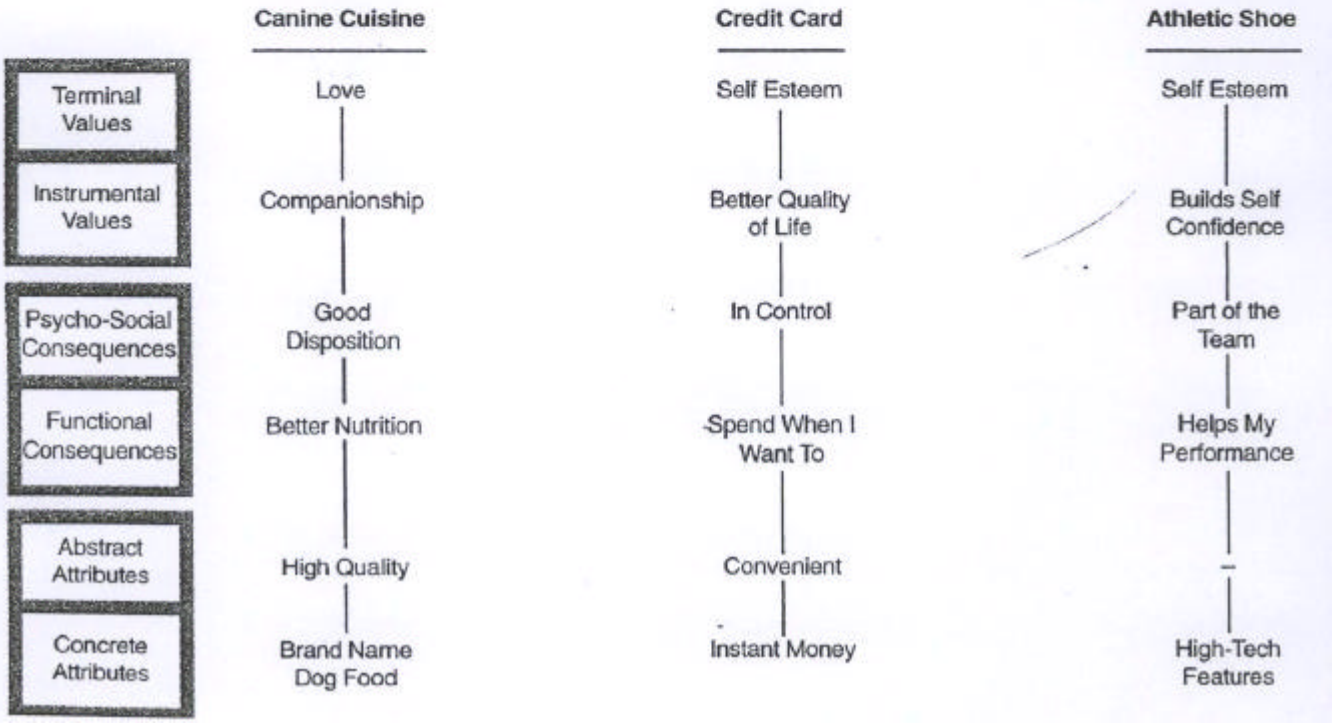
The respondent usually starts with attributes (A) that describe differences in product characteristics. The respondent then moves to the consequences (C) that result from a particular attribute (e.g., light beer has fewer calories and therefore does not fill me up as fast and/

Figure 11.1 Means-End Levels of Abstraction

Level of Abstraction	
Terminal Values	Preferred end states; internal values relating to how one views oneself; very abstract consequences of product use.
Instrumental Values	Preferred modes of conduct; an external orientation relating to how we are perceived by others; abstract consequences of product use.
Psycho-Social Consequences	Psychological (How do I feel?) and social (How do others feel about me?) consequences of product use.
Functional Consequences	Physical outcomes of use; does the product do what it is supposed to do?
Abstract Attributes	Abstract representation or chunk standing for several more concrete attributes; subjective, not directly measurable; can't perceive directly through the senses.
Concrete Attributes	Cognitive representation of a physical characteristic of the product; can be directly perceived; objective.

Source: Adapted from Peter, J. Paul and Jerry C. Olson, *Consumer Behavior*, New York, NY: Irwin (1987): 120.

Figure 11.2 Examples of Means-End Chains



or helps me watch my weight). When asked why each of these are important, the respondent tends to move up to such values (V) as being more attractive or being able to drink with friends longer—to be "one of the guys." These values are thought to represent the respondent's ultimate personal goals—the real reasons he or she uses a product or service.

Then other attributes that describe product/brand differences for the same respondent are chosen, and the process is repeated until there are no more meaningful differences to probe. Each of these questioning sequences moves the respondent "up the ladder of abstraction" to reveal several ultimate objectives in using one product/brand over another. The sample size required to achieve a representative set of ladders ranges from 30 to 50 respondents, depending on the type of product/service.

HIERARCHICAL VALUE MAP

When all laddering interviews are completed, the next step is a "content analysis" of all responses. This involves converting each response into summary codes that combine similar attributes, consequences, or values. These common summary codes make it possible to construct a Hierarchical Value Map, or Consumer Decision Structure, showing how the ideas represented by these summary codes are related to one another. Therefore, each code word or phrase (element) that appears on the map represents a substantial number of respondents. The coded elements are arranged on the map so that the ones mentioned first (attributes) are at the bottom and the others are located above in the order in which they were mentioned. Those at the top are at the highest level of abstraction (values).

The next step is to draw vertical lines connecting coded elements that are frequently mentioned by respondents. The connections mentioned first by respondents are shown at the bottom of the map. All of the lines shown on the map indicate that substantial numbers of respondents mentioned both elements or connections, typically using a threshold cutoff or minimum value for each connecting line that yields approximately 80 to 85% of all ladders. When all the connections are determined, the elements in the map are rearranged to minimize overlapping or crossing lines.

Maps can be improved by quantification of one type or another. Numbers can be shown next to each coded element, to indicate frequency of mention. Also, the frequency of mention of connecting lines can be shown

by width or nearby numbers. Information about specific brands can also be shown by separate maps or colors on a single map, if there are sufficient numbers of respondents for a given brand. All these embellishments can increase the utility and understanding of a laddering map.

Because Hierarchical Value Maps are considered to depict graphically the dominant perceptual orientations or decision structures among respondents, they can be used as a basis for segmenting respondents in these terms. Respondents who mention the same elements (A, C, and V) in roughly the same sequence can be grouped together, to give some idea as to how many different perceptual orientations exist in a given market and the relative sizes of each. Then a single laddering map can be constructed for each segment, and the resulting maps will be noticeably different.

Examples of Hierarchical Value Maps

An example of a Hierarchical Value Map for consumer credit cards is shown in Figure 11.3. There are approximately 6 levels on the map. At the bottom are the most specific, least abstract characteristics of credit cards: "acceptance," "grace period/float time," "instant money," and so on (concrete attributes). These ladder-up to the common benefit of "convenience" (abstract attribute). In turn, convenience leads to "better prepared for an emergency" and being "better organized" (functional consequences) and to spending "when I want to" (psychological consequences), and so on up the ladder to the highest values of "self esteem" and "independence." This is a typical A → C → V sequence.

The relative frequency of connections is shown by the width of connecting lines: darker lines show more frequently mentioned connections. For credit cards, the darkest lines connect "in control" with "quality of life" and "self esteem." Other dark lines connect "less stress/worry" and "peace of mind," "pay off each month" and "no accrual of debt," "billing statements" and "better organized," and so on.

Table 11.1 contains additional information about the credit card ladders. For example, the percentage of total ladders containing each coded concrete element ranges from 25% for "acceptance" to 4% for "grace period/float time." The percentage of positive mentions for each of these elements ranges from 18% for "acceptance" to 4% for "grace period/float time." Positive mentions are also shown for each of 3 specific brands

Figure 11.3 Hierarchical Value Map for Credit Cards

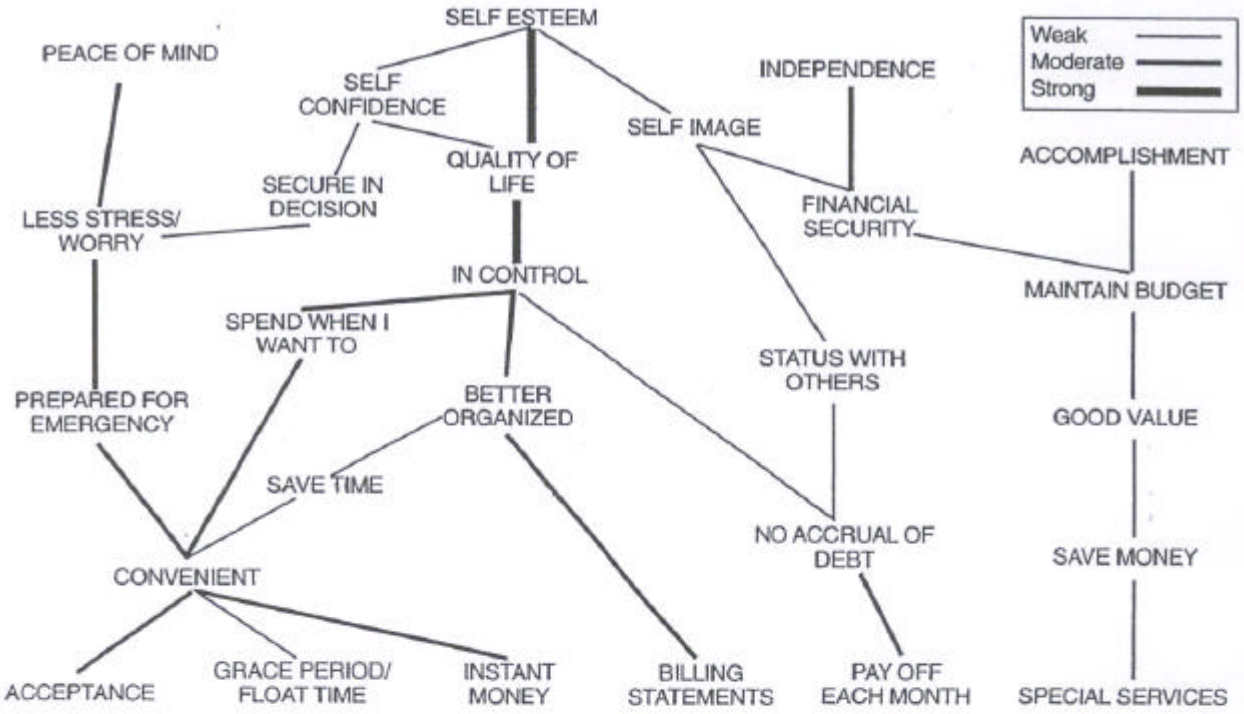


Table 11.1 Understanding Equities and Disequities for Credit Cards

Attributes	Percentage of Total Ladders Containing the Element	Percentage of Positive Mentions	Percentage of Negative Mentions	Positive Mentions		
				Credit Card A	Credit Card B	Credit Card C
Acceptance	25	18	7	9	6	3
Instant money	19	17	2	7	6	4
Billing statement	16	9	7	2	2	5
Pay off each month	15	5	10	0	0	5
Special services	12	10	2	2	5	3
Grace period	4	4	0	1	2	1

of credit cards: A, B, and C. Overall negative mentions also are shown in Table 11.1. Examples of the original coded elements for this credit card ladder study are shown in Figure 11.4.

Another Hierarchical Value Map for a dog food is shown in Figure 11.5. One ladder starts with the attribute "brand name" and ladders up to "high quality" (superior product, product quality), which is followed by "nutrition" and "healthy dog." The latter connects frequently with both "good disposition" and "prolong life." "Good disposition" connects to "companionship" and then to "love" (feel accepted, feel worthwhile). "Prolong life" ladders up to "fulfill responsibility" (good owner, doing the right thing). Several other ladders are shown that are mentioned less frequently.

Care must be taken to not overinterpret the size or strength of the dominant pathways. The samples used in laddering are relatively small and therefore subject to significant sampling bias. Still, the Hierarchical Value Map is a tool that provides a representation of the key decision-making structures in the marketplace.

Table 11.2 gives additional information about dog food perceptions, in the form of an Implication Matrix. This shows numerically how the coded elements are connected to one another using the ratio Direct Connections: Indirect Connections + Direct Connections. (An Indirect Connection is not mentioned in immediate sequence but is given later in the interview.)

DEVELOPING A POSITIONING STRATEGY

Once we have the Hierarchical Value Map, the next step is to develop strategic positioning options that differentiate the product or service from competitors. Laddering can be used to identify which elements on the map are more closely associated with a given brand. It can also identify positive and negative associations, and this helps to pinpoint the perceptual strengths and weaknesses of key brands.

One method used to identify brand strengths (equities) and weaknesses (disequities) involves using a larger sample of 100–200 respondents composed of both users and nonusers. Then the ratio of positive to negative responses for each coded element of each brand provides an evaluation of a brand's strengths and weaknesses. In addition, usage rates for the different brands can be used to calculate the relative importance of each

Figure 11.4 Coded Elements for Credit Cards: Attributes

Acceptance

Positives
"everyone takes it"
"can use it all over the country"
"good at more places"
"don't need a separate card for every place I go"
"can use it traveling outside the country"

Negatives
"only useful in a few places"
"just not as accepted as the other card"
"hard to use it in the stores I like to shop in"
"couldn't use it at a lot of restaurants"
"still had to have other cards with me"

Billing Statements

Positives
"easy to read the charges"
"tells all the card's benefits on each statement"
"explains my interest charges"
"it's easy to compare my receipts"

Negatives
"not sure what the real interest rate is"
"doesn't mention the annual fee until it hits you"
"the businesses I charged at are sometimes in code"
"doesn't help keep the balance manageable"

Instant Money

Positives
"don't always have money on me"
"tend to run out of cash at the end of the month"
"instant access to thousands of dollars"
"the money is always there"

Negatives
"money is available even if I don't really have it"
"not big enough credit line"

Figure 11.3 Hierarchical Value Map for Credit Cards

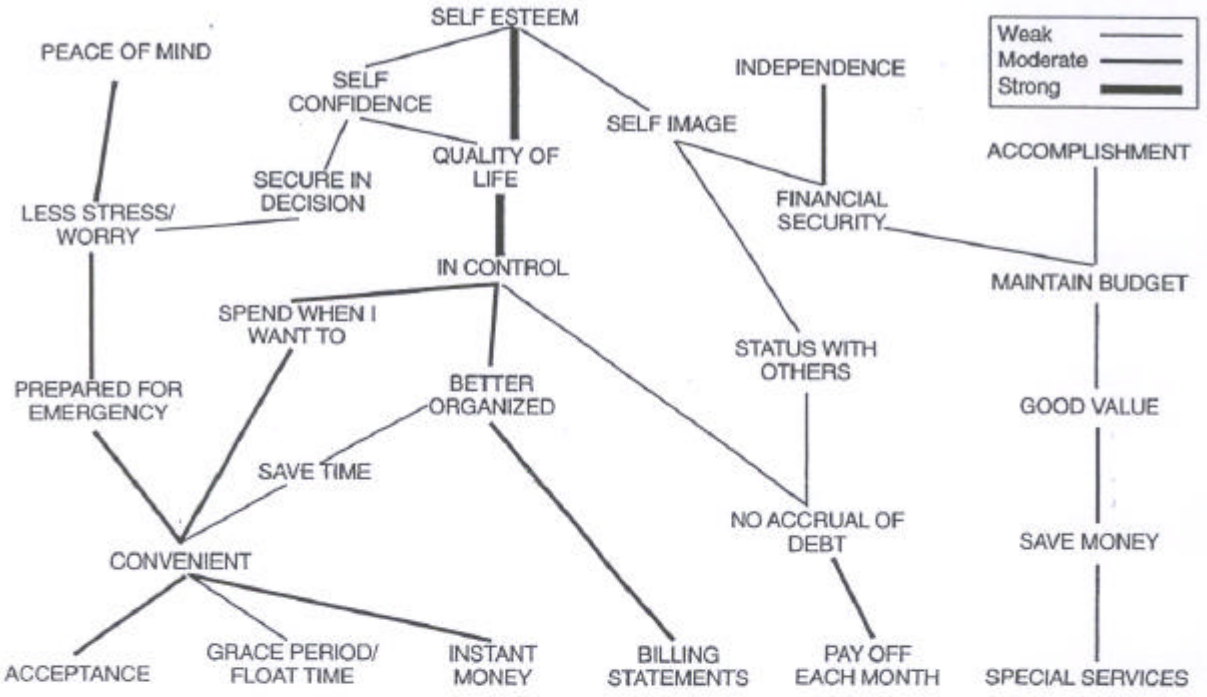


Table 11.1 Understanding Equities and Disequities for Credit Cards

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				Credit Card A	Credit Card B	Credit Card C
Acceptance	25	18	7	9	6	3
Instant money	19	17	2	7	6	4
Billing statement	16	9	7	2	2	5
Pay off each month	15	5	10	0	0	5
Special services	12	10	2	2	5	3
Grace period	4	4	0	1	2	1

elements can be created as well as additional connections. This makes the entire exercise more flexible and open to innovation.

MECCAS Model

To use the ladder connections for creating images with advertising, the components of a positioning strategy must be translated into the components of an advertisement. The MECCAS (Means-End Conceptualization of the Components of Advertising Strategy) model can accomplish this. There are 4 levels of MECCAS: Driving Force, Leverage Point, Consumer Benefit, and Message Elements.

Examples of these are shown in Figure 11.6 for the dog food category. For this category the Message Elements are "high quality" and "special ingredients," the Consumer Benefit is "nutrition," the Leverage Points are "prolong life" and "healthy dog," and the resulting Driving Force is "fulfill responsibility." A fifth component, the Executional Framework, relates to the plot, scenario, or tone of the advertisement.

All of this assumes that the company can actually *deliver* on the elements in a positioning statement, especially at the lower levels of attributes and consequences. Otherwise a positioning statement is simply an empty promise.

Figure 11.7 shows another example in terms of a strategic positioning ladder for AIDS awareness. "Abstinence" and "no drugs" lead to "minimizing risk," which in turn leads to making the "right decision" and to "healthy." These ladder up to the ultimate values of "peace of mind" and "longevity." The width of the connecting lines suggest that this would be the best strategic path because it would resonate with the most people. Then, advertisements that communicate the elements of a positioning strategy, as well as the connections or relationships between them, can be developed by advertising creative people (Gengler and Reynolds 1992).

Assessment of Advertising

When a positioning strategy has been specified and executional concepts have been developed to communicate the strategy, it becomes important to ensure that the executions do, indeed, communicate the intended strat-

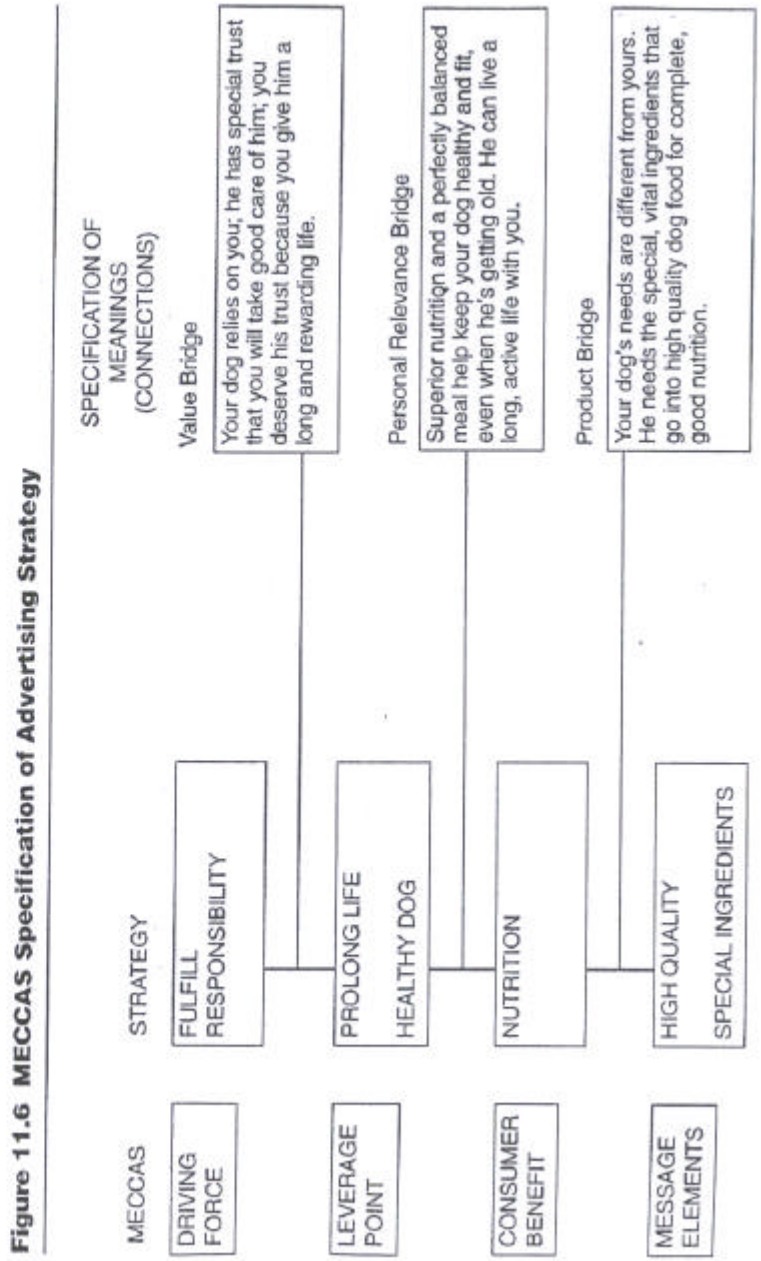

Figure 11.6 MECCAS Specification of Advertising Strategy

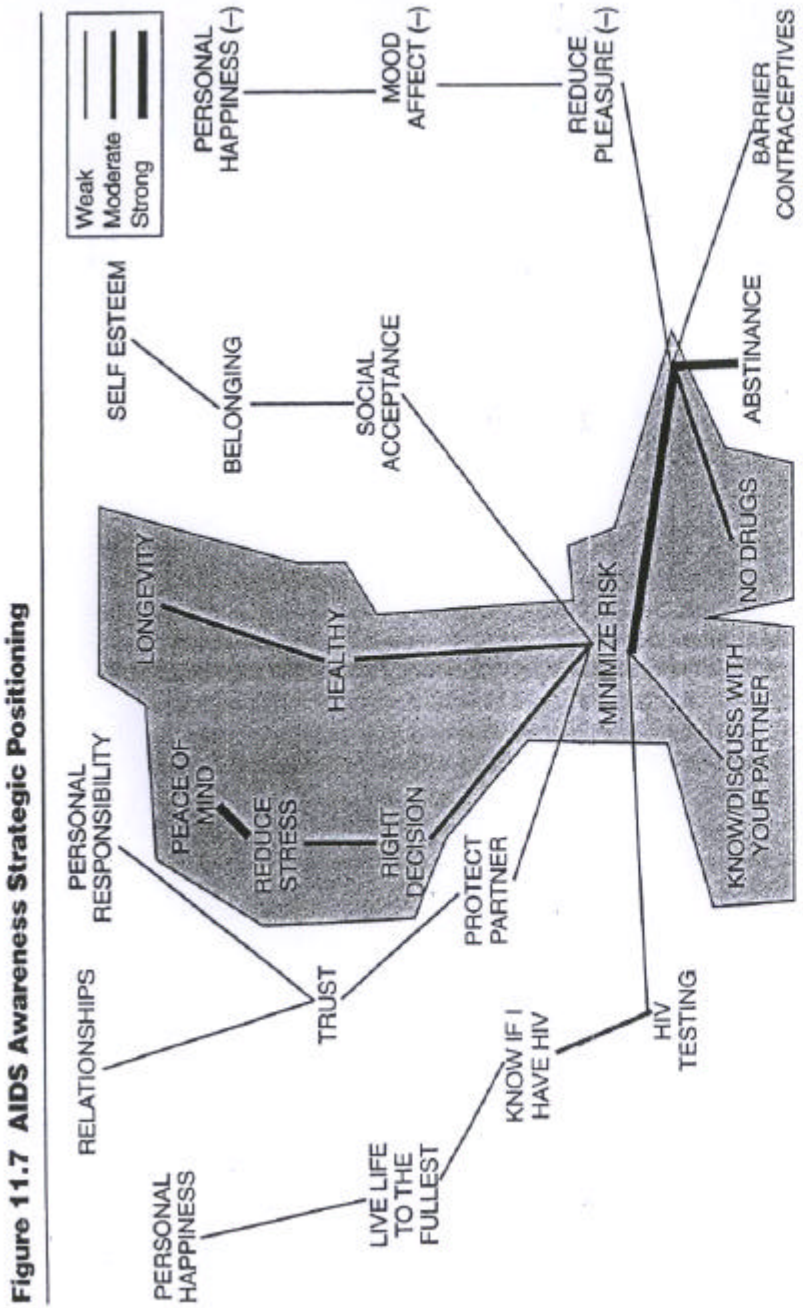

Figure 11.7 AIDS Awareness Strategic Positioning

egy. One method used to assess advertising is called *strata* (Gutman and Reynolds 1987; Reynolds and Rochon 1991). Strata is a communications assessment system that is based on the MECCAS framework and measures both the ability of advertising to "activate" or communicate the key elements (attributes → consequences → values) of a strategy and the strength of the linkage or association between them.

Strata is an interviewer-administered, computer-driven questioning system that uses attribute-consequence-value statements in combination with traditional communication check, executional, and affect (persuasion) measures to assess consumer reactions to advertising communications. It reports the specific executional techniques in an advertisement that cause the communication of strategic elements. Measures that depend on the degree of finish of an execution are not included, so prefinished copy can be assessed before large investments are made (Reynolds and Gengler 1991).

Feedback from strata can be used not only to improve the assessed advertisements, but they can be applied to new advertising as well. Thus, advertisements can be improved over time, in terms of communicating a desired strategy. Strata reports results in a relatively simple format that follows the hierarchical nature of the means-end model. In the example shown in Figure 11.8, the advertisement communicated the key elements of the strategy well except for "special ingredients" at the Message Element level and "fulfill responsibility" at the Driving Force level. This suggests that improvements to the advertisement in these areas could likely increase the product affect score of 40.

COMMENT

Overall, laddering methodology offers a unique approach to understanding how consumers perceive a product/service category and what benefits they derive from its usage. It provides a conceptual framework that attempts to represent how consumers relate to products/services and organize component attributes-consequences-values in a sequential, hierarchical fashion. The basic premise is that if the reasons underlying the importance of key attributes are known, we can derive a better understanding of the target consumer. Of course, the resulting ladders may or may not be isomorphic with the underlying conceptualizations in consumers' minds. (This also applies to perceptual, preference, and other types of positioning maps discussed in previous chapters.)

Figure 11.8 Strata Assessment Summary for a Dog Food Ad

For example, the sequential approach to questioning virtually assures responses that fit well into a ladder-like format. This could be the process people use in conceptualizing a product/service category. For example, what happens when a respondent starts by naming consequences (C) or even values (V) rather than attributes (A) at the outset of the interview? This is usually resolved by *chutes*, which means laddering down where applicable.

The procedure of starting first with differences among existing products/services; brands seems reasonable, because this is the same approach used for constructing perceptual maps on the basis of multidimensional scaling (Chapter 8). However, if the goal is representing consumer decision-making, then differences in preferences might be more desirable. One might like clearer, more objective criteria for deciding into which of the 6 elements and subelements a particular response falls. It may never be possible to do this with any real certainty, and perhaps this is not a crucial matter. Other researchers have addressed this same problem (Myers and Shocker 1981).

It may concern some readers that the numbers of respondents used to construct ladders is small (30 to 50 respondents), though these numbers could be adequate for many product/service categories. An average of 6 or more ladders can typically be drawn from each respondent, which means that the total number of ladders actually analyzed to produce a Hierarchical Value Map is usually from 180 to 300.

On balance, laddering based on means-end theory has been used effectively in a wide range of categories: products, services, political issues and campaigns, and public policy issues. It does provide a different perspective than many other approaches, which results in greater insight into people's mental processes as they consider the relationship between themselves and a product/service category or brand. It could be of substantial help in developing positioning strategies for many types of product/service categories, especially those that are more complex or emotion-laden.

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