**LADDERING THEORY, METHOD, ANALYSIS, AND INTERPRETATION**

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Journal of Advertising Research Feb/March, 1988

Personal values research in marketing has recently re­ceived a substantial amount of attention from both academics and practitioners This more in-depth profiling of the consumer and his or her relationship to products offers potential not only for understanding the "cognitive" positionings of current products but also permits the de­velopment of positioning strate­gies For new products. Endorsing this more psychological view of the marketplace, Sheth (1983) suggests that to be comprehensive in marketing products in the 1980's both researchers and manage­ment are going to have to, if they have not already, adopt this con­sumer-based orientation rather than one that merely focuses on product characteristics.

The application of the personal values perspective to the mar­keting of consumer products can be classified into two theoretically grounded perspectives, "macro" representing sociology and "micro" representing psychology (Reynolds, 1985). The macro approach refers to *stan­*dard survey research method­ology combined with a classification scheme to categorize re­spondents into predetermined clusters or groups (e.g..VALS methodology of the Stanford Re­search Institute). Products and their positioning strategies are then directed to appeal to these general target groups, such as the Merrill Lynch solitary bull appealing to the achiever ori­entation whose desire is to send out and “get ahead of the pack” (Plummer, 1985).

Reynolds (1985) notes, though strong on face validity these rather general classifications fail to provide an understanding, specifically, of how the concrete aspects of the product fit into the consumer’s life. As such, the macro survey approach only gives part of the answer, namely, the overall value orientation of target segments within the marketplace. Missing are the key de­fining components of a posi­tioning strategy—the linkages between the product and the per5onally relevant role it has in the life of the consumer.

The more psychological perspective offered by the "micro" approach based upon Means-End Theory (Gutman 1982), spe­cifically focuses on the linkages between the attributes that exist in products (the "means"), ‘he consequences for the consumer provided by the attributes, and the personal values (the “ends”) the consequences reinforce. The means-end perspective closely parallels the origin of attitude re­search represented by Expec­tancy-Value Theory (Rosenberg, 1956), which posits that con­sumer actions produce conse­quences and that consumers Learn to associate particular consequences with particular product attributes they have reinforced through their buying behavior. The common premise, then, is that consumers learn to choose products containing attributes which are instrumental to achieving their desired conse­quences. Means-End Theory simply specifies the rationale un­derlying why consequences are important, namely, personal values.

The focus of this article is on detailing the specifics of the in-depth interviewing and analysis methodology, termed “lad­dering” (Gutman and Reynolds, 1979; Reynolds and Gutman, 1984a), for uncovering means-end hierarchies defined by these key elements and their linkages or connections. The combination of connected elements, or ladder, represents the linkage between the product and the perceptual process of consumers, which as pointed out previously, yields a more direct and thus more useful understanding of the consumer.

**Laddering**

Laddering refers to an in-depth, one-on-one interviewing technique used to develop an understanding of how consumers translate the attributes of products into meaningful associ­ations with respect to self, fol­lowing Means-End Theory (Gutman, 1982). Laddering in­volves a tailored interviewing format using primarily a series of directed probes, typified by the “Why is that important to you?” question, with the express goal of determining sets of linkages be­tween the key perceptual ele­ments across the range of at­tributes (A), consequences (C), and values (V). These association networks, or ladders, referred to as perceptual orientations, repre­sent combinations of elements that serve as the basis for distinguishing between and among products in a given product class.

It is these higher-order knowl­edge structures that we use to process information relative to solving problems (Abelson, 1981), which, in the consumer context, is represented by choice. Basically, distinctions at the dif­ferent levels of abstraction, rep­resented by the A-C-Vs, provide the consumer with more person­ally relevant ways in which products are grouped and cate­gorized. Thus, the detailing and subsequent understanding of these higher level distinctions provides a perspective on how the product information is pro­cessed from what could be called a motivational perspective, in that the underlying reasons why an attribute or a consequence is important can be uncovered.

For example, the following ladder, starting with a basic dis­tinction between types of snack chips, represents part of the data collection from a single subject in a salty-snack study:

(V) self-esteem  
 I  
(C) better figure  
 I  
 (C) don’t get fat  
 I  
(C) eat less  
 I  
 (A) strong taste  
 I  
 (A) flavored chip

These elements were sequen­tially elicited from the respondent as a function of the laddering technique’s ability to cause the respondent to think critically about the connections between the product’s attributes and, in this case, her personal motivations.

The analysis of Laddering data such as this across respondents first involves summarizing the key elements by standard con­tent-analysis procedures (Kassar­jian, 1977), while bearing in mind the levels of abstraction, A-C-V, conceptualization. Then a sum­mary table can be constructed representing the number of con­nections between the elements. From this summary table domi­nant connections can then be graphically represented in atree diagram, termed a hierarchical value map (HVM). (This type of cognitive map, unlike those output from traditional factor analysis or multidimensional scaling methods, is structural in nature and represents the linkages or associations across levels of abstraction [attributes-consequences-values] without reference to specific brands.) Un­fortunately, though basically ac­curate, this general description of; the analysis process has not been specific enough to permit first-time analysts (or their superiors) to feel comfortable with dealing with all the vagaries of qualitative data of this type. Thus, a step-by-step procedure, including both the analysis and the assess­ment of the resulting map, will be detailed by way of example later.

Interpretation of this type of qualitative, in-depth information permits an understanding of consumers’ underlying personal motivations with respect to a given product class. Each unique pathway from an attribute to a value represents a possible per­ceptual orientation with respect to viewing the product category. Herein lies the opportunity to differentiate a specific brand, not by focusing on a product at­tribute, but rather by communi­cating how it delivers higher level consequences and ulti­mately how it is personally rele­vant, essentially creating an “image positioning.” This under­standing typically serves as the basis for the development of ad­vertising strategies, each repre­senting a distinct “cognitive” po­sitioning, which reinforces the various levels of abstraction for a given perceptual orientation (Olson and Reynolds. *1963;* Reynolds and Gutman, 1984).

In sum, the express purpose of the interviewing process is to elicit attribute-consequence-value associations consumers have with respect to a product or service class. The general notion is to get the respondent to respond and then to react to that response. Thus, laddering consists of a series of directed probes based on mentioned distinctions initially obtained from perceived differences between and among specific brands of products or services. Again, after the initial distinction obtained by con­trasting brands is elicited, all subsequent higher-level elements are not brand specific. The lad­dering results can be used to create an HVM summarizing all interviews across consumers, which is interpreted as repre­senting dominant perceptual ori­entations, or “ways of thinking,” with respect to the product or service category.

**Objectives**

Since the introduction of the laddering methodology into the consumer research domain, nu­merous applications, both ap­plied and academic, have been executed (Gutman, 1984; Gutman and Alden, 1984; Gutman and Reynolds, 1983; Gutman, Reynolds, and Fiedler, 1984; Olson and Reynolds, 1983; Reynolds and Gutman, 1984a; Reynolds and Gutman, 1984b; Reynolds and Jamieson, 1984). Again, the primary application has been to develop a cognitive hierarchical value map indicating the interrelation of the attributes, consequences, and personal values for a given product or ser­vice category.

Unfortunately, the term lad­dering in the marketing commu­nity has become a somewhat ge­neric term representing merely a qualitative, in-depth interviewing process (Morgan, 1984), without reference to either its theoretical underpinnings (Gutman, 1982) or the rather critical distinction be­tween the interviewing process and analytical methods used to derive meaning from the re­sulting data (Durgee, 1985). Not only have these critical distinc­tions been overlooked, but even the standard definition of lad­dering as an interviewing meth­odology, to date, has not been addressed in the academic litera­ture. Given the value of this type of in-depth understanding of the consumer, in particular, the po­tential with respect to the specifi­cation of more accurate and ap­propriate positioning strategies, a comprehensive documentation of this research approach is needed.

Thus, it is the primary objec­tive of this article to detail the in­terviewing techniques that per­tain to laddering in order to pro­vide a foundation for both its application as well as subsequent method evaluation. A secondary objective is to provide a detailed description of how the analysis of this specific type of qualitative data is performed. The third and final objective is to demonstrate how the laddering results are in­terpreted with respect to devel­oping and understanding per­ceptual orientations and product positionings.

**Interview Environment**

**General Considerations.**

An interviewing environment must be created such that the respon­dents are not threatened and are thus wiling to be introspective and look inside themselves for the underlying motivations be­hind their perceptions of a given product class. This process can be enhanced by suggesting in the introductory comments that there are no right or wrong an­swers, thus relaxing the respon­dent, and further reinforcing the notion that the entire purpose of the interview is simply to under-

stand the ways in which the re­spondent sees this particular set of consumer products. Put simply, the respondent is posi­tioned as the expert. The goal of the questioning is to understand the way in which the respondent sees the world, where the world is the product domain comprised of relevant actors, behaviors, and contexts. The approaches and techniques discussed in this ar­ticle are designed to assist the re­spondent in critically examining the assumptions underlying their everyday commonplace be­haviors. Wicker (1985) discusses how researchers might use some of these same devices in breaking out of their traditional modes of thinking.

Importantly, interviewers must position themselves as merely trained facilitators of this dis­covery process. In addition, due to the rather personal nature of the later probing process, it is advisable to create a slight sense of vulnerability on the part of the interviewer. This can be accom­plished by initially stating that many of the questions may seem somewhat obvious and possibly even stupid, associating this pre­dicament with the interviewing process, which requires the in­terviewer to follow certain spe­cific guidelines.

Obviously, as with all qualita­tive research, the interviewer must maintain control of the in­terview, which is somewhat more difficult in this context due to the more abstract concepts that are the focus of the discussion. This can be best accomplished by minimizing the response options, in essence being as direct as pos­sible with the questioning, while still following what appears to be an “unstructured” format. By continually asking the *“Why* is that important to you?” question, the interviewer reinforces the perception of being genuinely in­terested and thus tends to command the respect and control of the dialogue.

By creating a sense of involve­ment and caring in the interview, the interviewer is able to get below the respondent’s surface reasons and rationalizations to discover the more fundamental reasons underlying the respon­dent’s perceptions and behavior. Understanding the respondent involves putting aside all internal references and biases while put­ting oneself in the respondent’s place. It is critical that rapport be established before the actual in-depth probing is initiated as well as maintained during the course of the interview. Basically, the interviewer must instill confi­dence in the respondent so the opinions expressed are perceived as simply being recorded rather than judged.

Also critical to the interviewing process is the ability of the inter­viewer to identify the elements brought forth by the respondent in terms of the levels of abstrac­tion framework. Thus, a thor­ough familiarity with the Means-End theory is essential.

Sensitive areas will frequently produce superficial responses created by the respondent to avoid introspection about the real reasons underlying the respon­dent’s behavior. A clinical sensi­tivity is further required of the interviewer to both identify and deal with these frequent and po­tentially most informative types of dialogue.

As in all interview situations, since the respondents will react directly in accordance with the interviewer’s reactions—both verbal and nonverbal—it is vital to make the respondent feel at ease. One should carefully avoid potentially antagonistic or ag­gressive actions. Moreover, to avoid any “interview demand characteristics,” nonverbal cues such as approval, disapproval, surprise or hostility, or implying rejection should be avoided. Put simply, the interviewer should be perceived as a very interested yet neutral recorder of information.

**Laddering Methods**

**Eliciting Distinctions.** Lad­dering probes begin with distinc­tions made by the individual re­spondent concerning perceived, meaningful differences between brands of products. Having made a distinction the interviewer first makes sure it is bipolar, requiring the respondent to specify each pole. The respondent is then asked which pole of the distinc­tion is preferred. The preferred pole then serves as the basis for asking some version of the “Why is that important to you?” ques­tion. The following overview identifies three general methods of eliciting distinctions that have proven sat­isfactory. The interview outline generally includes at least two distinct methods of eliciting dis­tinctions to make sure no key el­ement is overlooked.

*1. Triadic Sorting* (Kelly,1955).   
Providing the respondent with sets of three products as in the Repertory Grid procedure is one way to elicit responses from a respondent. Following are in­structions for a wine cooler study which used triads to elicit initial distinctions.

Instructions for Triads

You will be presented with five groups of three different wine coolers. For each group of three you will have the op­portunity to tell me how you think about the differences among the coolers. For ex­ample, if you were given a group of three cars:

Lincoln Continental—

Mustang—Cadillac

you might say “car maker” as a way of thinking about them. Two are made by Ford and one is made by General Motors. Another way to think about them is size—big versus small. Of course, there are many dif­ferent ways that you could think about the cars, for example:

• high styling versus ordinary styling

• economy versus luxury

• sporty versus traditional

There are no right or wrong answers. As I present you with each group, take a moment to think about the three wine coolers.

Specifically, I want you to tell me some important way in which two of the three wine coolers mentioned are the same and thereby different from the third. Again, when I show you the names of the three wine coolers, think of some overall way in which two of the coolers are the same and yet different from the third. If your response for one group of wine coolers is the same as for a previous group, try to think of another way in which they differ.

*2. Preference-Consumption Differences.*Preference differ­ences can also be a useful device for eliciting distinctions. Respon­dents, after providing a prefer­ence order for, say, brands of coolers, might be asked to tell why they prefer their most pre­ferred brand to their second most preferred brand, or more simply to say why one particular brand is their most preferred (or second most preferred, least preferred. etc.) brand.

To illustrate:

You said your most preferred brand is California Cooler and your second most was Bartles and Jaymes. What is it, specifically, that makes California Cooler more desirable?

Along these same lines, one might ask about preference and usage and query instances where liked brands are used infre­quently or less well-liked brands are used morefrequently. This device worked well in a propri­etary study of snack chips. Dif­ferences between what people like and what they actually used opened up the discussion to in­clude strategies to limit or control the consumption of snacks.

*3. Differences by Occasion.*

In most cases it is desirable to present the respondent with a personally meaningful context within which to make the dis­tinctions. This contributes to more important distinctions being elicited as respondents’ distinctions are being examined in the context of the setting in which they naturally occur (Barker, 1968; Runkel and McGrath, 1972). Attention to the context of consumer behavior provides a more meaningful con­text for laddering to proceed. People do not use or consume products in general; they do so in particular contexts. A study done in the convenience restaurant category (Gutman, Reynolds, and Fiedler, 1984) used triads be­tween various convenience res­taurants as a starting point. It was soon discovered that the dis­tinctions elicited represented such obvious physical character­istics of the places compared (namely, hamburgers versus chicken) that they did not permit movement to higher, more per­sonally meaningful areas from this starting point.

Respondents were then ques­tioned about their usage of various convenience restaurants and the occasion (day-part, who with, concomitant activities) in which they frequented them. Using this information to provide a relevant context relating to fre­quent usage of the category, re­spondents were given the same triads but with a context for making a comparison. For ex­ample, it might be suggested to a mother with young children that she has been out shopping with her children, and it being lunch time, she wants to stop for lunch on the way home. Three conve­nience restaurants could be com­pared for their suitability with re­spect to this usage situation. Re­spondents could respond to triads using their two or three most frequent usage occasions as a context for responding.

What is important is to provide a meaningful basis for the re­spondent to keep in mind when thinking about differences among the stimuli. In this manner their distinctions are more likely to lead to a meaningful consider­ation of outcomes accruing to the respondent, which relate to making distinctions among the products.

**Selecting Key** **Distinctions to** Ladder. Typically, a respondent can only mention 10 to 12 dif­ferent distinctions for a given product category. Once a satis­factory number of distinctions have been mentioned, the inter­viewer has basically two options on how to select which ones will serve as the basis for building ladders. Either the interviewer can judgmentally select which distinctions are to be used on the basis of prior knowledge of the category or with respect to the specific research issue at hand. Or, the interviewer can present a card with all the mentioned dis­tinctions on it and have the re­spondent rate the relative impor­tance of each, then select those with the highest ratings.

**The Two Basic Problems of Laddering.** Prior to the detailing of the specific interviewing tech­niques, two of the most common problems encountered in lad­dering and the general type of tactics required to counter the situation will be reviewed. An understanding of these basic issues will provide a necessary basis for learning the more de­tailed techniques to be presented later in the article.

*1. The Respondent Really Does Not “Know” the An­swer.* When asked why a partic­ular attribute or consequence is important to them, the respon­dent often cannot articulate a “ready” reason. This lack of pre­vious thinking of the reason un­derlying why the lower level construct is important can be dealt with by asking what would happen if the attribute or conse­quence was not delivered. Essen­tially this is negative laddering. The “nonconscious” reason (pre­ferred in the Mean-End approach to the psychoanalytic “subcon­scious”) is then typically discov­ered by the respondent imag­ining the negative, resulting from the absence of the given con­struct, and then relating that back to what must be delivered if that negative is to be avoided.

Another general class of probing to avoid blocks on the part of the respondent is to change or rephrase the question in a situational context, much like the more concrete method illus­trated earlier for initially eliciting distinctions. By discussing the issue in this manner, an answer is typically “discovered” due to the ability to concretize the issue at hand and deal with specific circumstances.

*2. Issues That Become Too Sensitive.* As the respondent is taken through the laddering pro­cess, that is, moved upward through the levels of abstraction, the dynamics of the interview become more and more personal. Reaction to the continued probing “Why is that important to you?” question about sensitive issues can vary from “waffling” (redefining the question at an equal or lower level) to stating “I don’t know,” silence, or even formulating extraneous argu­ments as an attempt to talk around the issue. Also, the re­spondent can manifest avoidance behavior by attaching negative or adverse characteristics to the in­terviewing process or to the interviewer.

Basically, three techniques can be employed to deal with re­spondent blocks due to sensitive issues. The first involves moving the conversation into a third person format, creating a role-playing exercise. The second, and most dangerous option, is for the interviewer to reveal a relevant personal fact (typically fabricated) about him/herself that makes the respondent feel less inhibited by comparison. The third, and most common, is to make a note of the problem area and come back to the issue when other relevant in­formation is uncovered later in the interview.

Techniques. Each of the fol­lowing techniques will be illus­trated by using one common product class, wine coolers, for purposes of simplicity. A short definition of each technique will be presented. Then verbatim transcriptions are shown to give a more complete example of the laddering process. Summary ladders are detailed to illustrate the content classification by level of abstraction (A/C/V). Note that each ladder is contained within the HVM depicted in Figure 1.

*1. Evoking the Situational Context* (\*). Laddering works beet when respondents are pro­viding associations while thinking of a realistic occasion in which they would use the product. It is the person that is the focus of study, not the product. Therefore, it is essential to elicit from respondents the most relevant occasions for product consumption and to use these as the focus of the interview.

**Interviewer**: You indicated that you would be more likely to drink a wine cooler at a party on the weekend with friends, why is that?

**Respondent:** Well, wine coolers have *less alcohol* than a mixed drink and because they are so *filling* I tend to drink fewer and more slowly.  
**Interviewer:** What is the ben**­**efit of having less alcohol when you are around your friends?  
**Respondent:** I never really have thought about it. I don’t know.  
**Interviewer**: Try to think about it in relation to the party situa­tion. **(\*)** When was the last time you had a wine cooler in this party with friends situation?

**Respondent**: Last weekend. Interviewer: Okay, why coolers last weekend? Respondent: Well, I knew I would be drinking a long time and *I didn’t want to get wasted.*

**Interviewer**: Why was it im­portant to not get wasted at the party last weekend? Respondent: When I’m at a party I like to *socialize,* talk to my friends, and hopefully make some new friends. If I get wasted I’m afraid I’d make an ass of myself and people won’t invite me next time. It’s important for me to be *part of the group.*

The summary ladder for (1) is:

V sense of belonging (part of the group)

C socialize

C avoid getting drunk (wasted)

A less alcohol/filling

*2. Postulating the Absence of an Object or a State of Being* **(\*).**

One way of “unblocking” respondents when they cannot move beyond a certain level is to encourage them to consider what it would be like to lack an object or to nut feel a certain way. This device often enables respondents to verbalize meaningful associations.

**Interviewer:** You said you prefer a cooler when you get home after work because of the *full-bodied taste.* What’s so good about a full-bodied taste after work?

**Respondent:** I just like it. I worked hard and it feels good to drink something satisfying. Interviewer: Why is a satis­fying drink important to you after work?

**Respondent:** Because it is. I just enjoy it.

**Interviewer**: What would you drink if you didn’t have a cooler available to you? (\*)

**Respondent**: Probably a light beer.

**Interviewer:** What’s better about a wine cooler as opposed to a light beer when you get home after work?

**Respondent:** Well, if I start drinking beer, I have a hard time stopping. I just continue on into the night. But with coolers I get *filled up* and it’s *easy to stop.* Plus, I tend to not eat as much dinner. Interviewer: So why is con­tinuing to drink into the eve­ning something you don’t want to do?

**Respondent**: Well, if I keep drinking I generally *fall asleep* pretty early and I don’t get a chance to *talk to my wife* after the kids go to bed. She works hard with the house and the kids all day—and it’s really important that I talk to her so we can keep our good rela­tionship, our *family life,* going.

The summary ladder for (2) is:

V good family life

C able to talk to my wife

C don’t fall asleep

C (consume less alcohol)

A filled up/easy to stop

A full-bodied taste/ less alcohol

1. *Negative Laddering* **(\*).**

For the most part, the laddering pro­cedure proceeds by probing the things respondents do and the way respondents feel. However, much can be learned by inquiring into the reasons why respon­dents do not do certain things or do not want to feel certain ways. This technique is particularly rel­evant when respondents cannot articulate why they do the things they do. Exploring hidden as­sumptions in this manner and using the device of making the opposite assumption have proven to be useful devices in making respondents aware of implications of common be­haviors (Davis, 1971).

**Interviewer**:You indicated a distinction between 12 ounce and 16 ounce bottles. What size bottle do you prefer?

**Respondent**: I always buy a 12 ounce bottle.

**Interviewer**: What’s the benefit of buying a 12 ounce bottle? **Respondent**: I just buy it out of habit.

**Interviewer**: Why wouldn’t you buy a 16 ounce? (\*)

**Respondent**: It’s *too much* for me *to drink* and it *gets warm* be­fore I can finish it all. Then I have to *throw it away.***Interviewer**: So how do you feel when you have to throw it away?

**Respondent**: It makes me mad because I’m *wasting my money.* **Interviewer**: What’s the im­portance of money to you? Respondent: I’m in charge of the family budget, so it’s my *responsibility* to make sure it’s spent right.

The summary ladder for (3) is:

V responsibility to family

C waste money

C throw it away (don’t drink all of it)

C gets warm

C too much to drink

A larger size

1. *Age-Regression Contrast Probe (\*).*

Moving respondents backward in time is another ef­fective device for encouraging re­spondents to think critically about and be able to verbalize their feelings and behavior.

**Interviewer**: You said you most often drink coolers at the bar. Why is that?   
**Respondent**: I’ve never really thought about it. I just order them.

**Interviewer**: Is there a differ­ence in your drinking habits compared to a couple of years ago? (\*)

**Respondent**: Yes, I drink dif­ferent types of drinks now.

**Interviewer**: Why is that? Respondent: Well, before I used to be in college, and the only thing around seemed to be beer.

**Interviewer**: So why do you drink coolers now? Respondent: Well, now I have a career and when I do go out I go with coworkers. Drinking a wine cooler looks better than drinking a beer.

**Interviewer**: Why is that? Respondent: The *bottle shape* and the *fancy label* look *more feminine* than drinking a beer.   
**Interviewer**: Why is that important to you?

**Respondent**: It’s important to me to have a *sophisticated image* now that I’m in the work force. I want to be just *like my coworkers.*

The summary ladder for (4) is:

V like my coworkers (belonging)  
C sophisticated image  
Cmore feminine  
A bottle shape  
A fancy label

*5. Third-person Probe* (\*).

Another device for eliciting re­sponses from respondents when they find it difficult to identify their own motives or to articulate them is to ask how others they know might feel in similar circumstances.

**Interviewer**: You mentioned you drink wine coolers at parties at your friend’s house. Why do you drink them there?   
**Respondent**: Just because they have them.

**Interviewer**: Why not drink something else?

**Respondent**: I just like drinking coolers.   
**Interviewer**: *Why* do you think your friends have them at parties? (\*)

**Respondent**: I guess they want to *impress* us because wine coolers are *expensive.* They re­late quality to how *expensive* it is.

**Interviewer**: Why do they want to impress others?   
**Respondent**: Since coolers are new, they are almost like a *status symbol.***Interviewer** So what is the value to them *of* having a status symbol?

**Respondent**: My friends always like to do one better than anyone else. It’s probably related to their *self-esteem.*The summary ladder for (5) is:

V self-esteem  
C status symbol  
C impress (others)

C quality  
A expensive

**6.** *Redirecting Techniques: Silence (\*)/Communication Check* (\*)

Silence on the part of the interviewer can be used to make the respondent keep trying to look for a more appropriate or definite answer when either the respondent is not willing to think critically about the question asked or when the respondent feels uncomfortable with what he or she is learning about themselves.

A communication check simply refers to repeating back what the respondent has said and asking for clarification, essentially asking for a more precise expression of the concept.

**Interviewer**: You mentioned you like the carbonation in a cooler. What’s the benefit of it?   
**Respondent**: I don’t think there’s any benefit to carbonation.

**Interviewer**: Why do you like it in a cooler?

**Respondent**: No particular reason.

**Interviewer**: (silence) (\*)   
**Respondent**: Come to think of it, carbonation makes it *crisp* and *refreshing.*

**Interviewer**: Why is that important?

**Respondent**: It makes it *thirst quenching,* especially after mowing the lawn and is a pick-me-up.

**Interviewer**: Let me see if I understand what you’re saying. **(\*\*)** What do you mean by saying a pick-me-up?

**Respondent**:Imean after I finish it’s like a *reward* for *completing* a*chore* I dislike.

The summary ladder for (6) is:

V completing a chore (accomplishment)

C reward  
 C thirst-quenching  
 C refreshing  
 A crisp  
 A carbonation

**Summary.** The reader will no doubt notice the similarity of these techniques to other qualita­tive interviewing approaches. The purpose here has been to demonstrate their use in lad­dering and to show how the ladders *per se* emerge from the interviewer-respondent interaction.

After spending a fair amount of time on one ladder without closure to a higher level, it be­comes necessary to either terminate further discussion or pro­ceed on to another ladder and circle back later. If one attribute or consequence ceases to become mobile, it is of no benefit to con­tinue the laddering process with it because time is limited. The more familiar the interviewer be­comes with the techniques and procedures, the better the inter­viewer is able to judge if an out­come can be reached in the line of questioning. By moving on to another subject, the respondent is given time to think more about the issue. The respondent may have a block and the shift can sometimes resolve the problem.

The central idea is to keep the focus of the discussion on the person rather than on the product or service. This is not an easy task because typically at some point the respondent re­alizes that the product seems to have disappeared from the con­versation. Unfortunately, there are situations where techniques and procedures are unable to produce a means-ends chain. The respondent may be inarticulate or simply unwilling to answer. It also takes a length of time for the interviewer to test all the tech­niques and develop a personal style that can produce ladders. As with any qualitative technique experience becomes the key.

Typically, two or three ladders can be obtained from roughly three-fourths of the respondents interviewed. Approximately one-fourth of the respondents, de­pending on the level of involve­ment in the product class, cannot go beyond one ladder. The time required from distinctions to final ladders varies substantially, of course, but 60 to 75 minutes rep­resents a typical standard.

**Analysis**

**Content Analysis.** Asover-viewed earlier, the initial task of the analysis is to content-analyze all of the elements from the ladders. The first step is to record the entire set of ladders across respondents on a separate coding form. Having inspected them for completeness and having devel­oped an overall sense of the types of elements elicited, the next step is to develop a set of summary codes that reflect ev­erything that was mentioned. This is done by first classifying all responses into the three basic A/C/V levels and then further breaking down all responses into individual summary codes (see Table I for wine-cooler codes).

Obviously, one wants to achieve broad enough categories of meaning to get replications of more than one respondent saying one element leads to another. Yet, if the coding is too broad, too much meaning is lost. The key to producing consistency in this stage, as in all content anal­ysis, is reliability checks across multiple coders.

Importantly, the goal at this level of the analysis is to focus on meanings central to the purpose of the study, remembering that it is the relationships between the elements that are the focus of in­terest, not the elements them­selves. For example, “avoids the negatives of alcohol” in Figure 1 is a summarization of several more detailed elements (namely, not too fired, not too drunk, don’t say dumb things, and don’t get numb). If all those separate elements were given separate codes it is likely’ that none of the relations between them and other elements would have very high frequencies, and they would not appear in the HVM.

Once the master codes are fi­nalized, numbers are assigned to each. These numbers are then used to score each element in each ladder producing a matrix with rows representing an indi­vidual respondent’s ladder (one respondent can have multiple ladders and thus multiple rows), with the sequential elements within the ladder corresponding to the consecutive column desig­nations. Thus the number of columns in the matrix corre­sponds to the number of ele­ments in the longest ladder plus any identification or demographic codes. (See the Appendix for the hypothetical score matrix repre­senting one ladder for 67 respondents from which the HVM in Figure 1 was constructed.)

It is this “crossing over” from the qualitative nature of the interviews to the quantitative way of dealing with the information obtained that is one of the *unique* aspects of laddering and clearly the one that sets it apart from other qualitative methods. This summary score matrix, then, serves as the basis for deter­mining the dominant pathways or connections between the key elements as well as providing the ability to summarize by subgroup (e.g., men only).

**Table 1**

**Summary Content Codes for Hypothetical Wine Cooler Example**

Values

(20) Accomplishment

(21) Family

(22) Belonging

(23) Self-esteem

Consequences

8) Quality

9) Filling

(10) Refreshing

(11) Consume less

(12) Thirst-quenching

(13) More feminine

(14) Avoid negatives

(15) Avoid waste

(16) Reward

(17) Sophisticated

(18) Impress others

(19) Socialize

Attributes

1) Carbonation

2) Crisp

3) Expensive

4) Label

5) Bottle shape

6) Less alcohol

7) Smaller

**The Implication Matrix.** Two research issues remain; constructing hierarchical maps to repre­sent respondents’ ladders in the aggregate; and determining the dominant perceptual segments represented in the overall map of aggregate relations. To accom­plish this, the next step is the straightforward one of construct­ing a matrix which displays the number of times each element leads to each other element (operationally defined at this level as which elements in a given row precede other ele­ments in the same row). Such a matrix will be a square matrix with a size reflecting the number of elements one is trying to map, usually between 30 and 50. Two types of relations may be repre­sented in this matrix: direct rela­tions and indirect relations.

**Hypothetical Hierarchical Value Map of Wine Cooler** Category

Self-esteem 23 Family Life 21  
 • feel better • maintain respect  
 about self of others  
 • self Image • better family ties

• self worth | \

| Belonging 22 | \

| • security | \

| • camaraderie | \

| • friendship | \

Accomplishment 20 | / \ | \

• get most from life | / \ | \

| ***Impress Others 18 Socialize 19*** \

| • successful image (able to) \  
 | / \ • easier to talk \

| / \ • open up \

| / \ • more sociable \

***Reward 16 SophistIcated Image 17 |*** \• satisfying • personal status | \  
 • compensation • how others view me | \

/ \ / | ***Avoid Negatives*** \ ***/ \ / More Feminine 13*** of ***Alcohol 14 Avoid Waste 15  
 / \ /*** • socially • not too drunk • doesn’t get

***Thirst-quenching 12 \ /*** acceptable • not too tired warm  
• relieves thirst \ / | \ | \

• not too sour \ / | \ | \

/ \ / | \ | \

/ \ / | \ | \

# Refreshing 10 Quality 8 | \ | Consume less 11 \

• feel alert, • superior product | \ | • can’t drink more

alive **•** product quality | \ | • can sip \

/ \ / \ | \ | | |

/ \ / \ | \ | | |

/ \ / \ | \ | | |

/ \ / \ Label Bottle Less | Smaller Size  
Carbonation Crisp Expensive (fancy) (shape) Alcohol Filling (10 oz.)  
 (+) 1 2 (+) 3 4 5 6 9 7

Direct relations refer to impli­cative relations among adjacent elements. The designations of (A) through (E) for the elements refer simply to the sequential order within the ladder. That is, given our wine cooler example:

Belonging (E)

able to socialize (D)

avoid negatives of alcohol (C)

consume less (B)

filling (A)

The A-B (“filling—consume less”) relation is a direct one as is B-C, C-D, and D-E. However, within any given ladder there are many more indirect relations, A-C, A-D, A-E, B-D, and so forth. It is useful to examine both types of relations in determining what paths are dominant in an aggregate map of relationships among elements. Without exam­ining indirect relations, a situa­tion might exist where there are many paths by which two ele­ments may be indirectly con­nected but where none of the paths are represented enough times to represent a significant connection. For example, there may be other paths by which “avoidsnegatives of alcohol’’ leads to “belonging.” Neverthe­less, it is helpful to keep track of the number of times “avoids negatives of alcohol” ultimately leads to “belonging” when ex­amining the strength of ladders as derived from the aggregate matrix of relations.

Another option in constructing the overall matrix of relations among elements is whether to count each mention of a relation­ship among elements that an in­dividual respondent makes or to count a relation only once for each respondent, no matter how many times each respondent mentions it. Given the previous ladder as an example, if “filling —consumes less” leads to several higher level associations for a given individual, do you count that indirect relation as many times as it occurs, or just once per respondent? The significance of an element is in part a function of the number of connec­tions it has with other elements, which argues for counting all mentions, but it does distort the construction of the map where there are surprisingly few (to those not familiar with this re­search) connections between ele­ments in the overall matrix. Often, of all the cells having any relations, only one-half will be mentioned by as many as three respondents.

Table 2 presents the row-column frequency matrix indi­cating the number of times di­rectly and indirectly all row ele­ments lead to all column elements. The numbers are ex­pressed in fractional form with direct relations to the left of the decimal and indirect relations to the right of the decimal. Thus “carbonation” (element 1) leads to “thirst-quenching” (element 12) four times directly and six times indirectly. More precisely, this means that four respondents said carbonation directly leads to thirst-quenching, whereas two respondents sequentially related the two elements with another element in between.

**Constructing the Hierarchical Value Map. In** filling in the im­plication matrix, individual re­spondent’s ladders are decom­posed into their direct and indi­rect components (see Table 2). In constructing the HVM, “chains” have to be reconstructed from the aggregate data. To avoid confu­sion, the term “ladders” will refer to the elicitations from indi­vidual respondents; the term “chains” will be used in refer­ence to sequences of elements which emerge from the aggregate implication matrix.

To construct a HVM from the matrix of aggregate relations, one begins by considering adjacent relations, that is, if A —> B and B—> C and C —> D, then a chain A-B-C-D is formed. There doesn’t necessarily have to be an indi­vidual with an A-B-C-V ladder for an A-B-C-D chain to emerge from the analysis. A HVM is gradually built up by connecting all the chains that are formed by considering the linkages in the large matrix of relations among elements.

The most typical approach is to try to map all relations above several different cutoff levels (usually from 3 to 5 relations, given a sample of 50 to 60 indi­viduals). The use of multiple cutoffs permits the researcher to evaluate several solutions, choosing the one that appear:; to be the most informative and most stable set of relations. It is typical that a cutoff of 4 relations with 50 respondents and 125 ladders will account for as many as two­-thirds of all relations among ele­ments. Indeed, the number of re­lations mapped in relation to the number of relations in the square

**Table 2**

## Summary Implication Matrix\*

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

1 Carbonation 1.00 10.00 4.06 .01 .14 .04 .06 .04 1  
 2 Crisp 3.00 4.00 .04 .04 .03 .04 .01 .07 2  
 3 Expensive 12.00 2.04 1.01 1.09 1.06 .05 .05 3  
 4 Label 2.00 2.02 2.04 .02 .01 .02 .03 4  
 5 Bottle shape 1.00 1.00 2.02 1.03 .02 .03 5  
 6 Less alcohol 1.00 1.00 5.00 .01 .01 1.01 .04 .01 6

7 Smaller 1.00 .01 3.00 .01 .02 .01 7

8 Quality 300 1.00 4.00 4.03 4.04 .01 3.02 .09 .04 8

9 Filling 4.00 .04 1.03 .03 .02 9

10 Refreshing 10.00 1.00 5.10 .01 .06 .04 .05 .02 10

11 Consume less 5.00 .04 .02 .03 11

12 Thirst-quenching 14.00 .08 .06 .04 .04 12

13 More feminine 7.00 .02 1.03 .04 13

14 Avoid negative 1.00 5.00 4.01 .04 14

15 Avoid waste 2.00 15

16 Reward 11.00 8.00 .06 1.05 16

17 Sophisticated 4.00 1.00 1.00 4.02 5.03 17

18 Impress 1.00 10.00 9.00 18

19 Socialize 3.00 5.00 19

20 Accomplishment 20

21 Family 21

22 Belonging 22  
23 Self-esteem 23

\* No relations exist between the attribute elements.

implication matrix can be used as an index of the ability of the map to express the aggregate relationships. There are (naturally enough) a tremendous number of empty cells and quite a few relations which are mentioned only once. Again, in establishing a cutoff level, one may count only the direct linkages in any cell or one may count the total number of linkages, direct or indirect,

To actually construct a HVM *­*from the series of connected pairs, one must literally build up the map from the chains extracted from the matrix of implicative relations. Considerable *in*genuity is needed for this task, with the only guideline being that one should try at all costs to avoid crossing lines. This discipline provides a coherence to the map and adds considerably to its interpretability. The criteria for evaluating the ability of the overall map to represent the data is to assess the percentage of all relations among elements accounted for by the mapped elements. The reader will note that Figure 1 also contains both the significant direct and indirect relations among adjacent elements.

Before constructing the HVM from the data in Table 2, it is necessary to point out the types of relations which might exist among elements. Five types of relations are of note:

A-D Elements mapped as *adjacent* which have a high number of *direct* relations.

N-D Elements mapped as *nonadjacent* which have a high number of *direct* relations.

A-I *Adjacent* elements which have a high number of *indi­rect* relations but a low number of direct relations.

N-I *Nonadjacent* elements which have a low, non-zero number of direct relations but a high number of *indi­rect* relations.

N-O *Nonadjacent* elements which have a low (or *zero)* number of indirect relations.

An illustration of these five types will help make clear the consid­eration process required in the construction of the map.

The first type of relationship, A-D, is the most common and represents the standard basis typically used in constructing the map. However, even when only the strong pairwise linkages are summarized, a certain degree of simplification can be gained from folding in consistent elements. For example, 10 respondents di­rectly associated “carbonation” (1) with “refreshing” (10) pro­ducing a strong linkage. And, “carbonation” (1) and “thirst— quenching” (12) have four direct relations and six indirect relations producing a separate yet related linkage. In this case, one option would be to map two lines, 1-10 and 1-12. Another option which permits essentially the same in­terpretation is to map 1-10-12 in which both are embedded. In ef­fect the “carbonation-thirst-quenching” (1-12) relation is a “N-D” type as described above, because these elements are mapped nonadjacently even though they have a high number of direct relations.

The possibility exists that some relations would not be consid­ered to be positioned adjacently because of a low number of direct relations, yet because of a high number of indirect relations this positioning appears reasonable (A-I). To illustrate, “fancy label” (4) and “bottle shape” (5) are each linked directly to “more feminine” (13) twice, which is below the cutoff value chosen to construct the HVM. However, both elements have two indirect relations with “more feminine” in addition to their two direct re­lations. It would seem reasonable to position both elements adja­cently to “more feminine,” omit­ting the element or elements which come between them and ‘‘more feminine.’’ In the case where there are a number of dif­fuse paths between two elements such that no path is dominant, as was rather simply demon­strated here, it is often useful to omit the minor relations and just map the dominant path.

If a chain is representative of several individuals’ ladders, the elements in that chain will be characterized by a high number of indirect relations among non­adjacent relations—although such nonadjacent elements will not necessarily have any direct relations (the “N-I” relation). This is the type of relationship which characterizes a Guttman scale. For example, “reward” (16) leads to “self-esteem” (23) one time directly, but five times indi­rectly. If “reward” did not ulti­mately lead to “self-esteem,” even though it does lead to “im­press others” (18), and “impress others” leads to “self-esteem,” we would certainly not charac­terize the “reward-impress others-self-esteem” chain (16-18-23) ~s a strong one. Thus, the “N-I” relations, even though they are not plotted, are impor­tant determinants of the quality of the chains depicted in the

HVM.

The last category of relations, nonadjacent relations which have low or no indirect or direct rela­tions (N-O), deserves careful consideration because of an arti­fact in the way the HVM is con­structed. As an example, “crisp” (2) does not appear in any re­spondent’s ladder with either “accomplishment” (20) or “self-

esteem” (23); however, it does have seven indirect linkages with “belonging” (22). The common aspects of the “carbonation” (1) path and the “crisp” path ac­count for the HVM being drawn in this manner.  
 In constructing the HVM in Figure 1 from the data in Table 2, the most efficient way is ~o start in the first row for which there is a value at or above the arbitrary cutoff level you have chosen. Using a cutoff of 4, the first sig­nificant value is “carbonation— refreshing” (1, 10) with a value of 10.00 indicating 10 direct rela­tions and 0 indirect relations be­tween these two elements. Next, one would move to the tenth row to find the first value at or ex­ceeding the cutoff value. It can be seen in Table 2 that “thirst ­quenching” (column 12) is the first significant value. Thus, the chain has grown to “1-10-12.” Continuing in the same manner the chain would next extend to “reward” (1-10-12-16), then to in­clude “impress others” (1-10-12-16-18), and, lastly, to include “belonging” (1-10-12-16-18-22).

Having reached the end of the chain, one goes back to the be­ginning to see if there are other significant relations in the same rows of the matrix which already have been inspected. For ex­ample, inspecting the first row indicates that “carbonation” is connected to “thirst-quenching,” “reward,” and “impress others”—all elements which are already included in the chain. In addi­tion, “carbonation” is linked to “accomplishment” and “self—es­teem” (20 and 23). A similar pat­tern will be observed when links with “thirst-quenching” (12) are inspected.

However, when “reward” (16) is inspected, it should be noted that moving across to column 20 in row 16, another significant re­lation is found. Thus another chain with common links to the original chain is plotted (1-10-12-16-20). And, “impress others” (18) also is linked to “self-es­teem” (23), producing the family of chains shown below:

self-esteem (23)

|

accomplishment (20) |

| |  
 | impress others (18)

| /

| /

reward (16)

|

thirst-quenching (12)

|

refreshing (10)

|

carbonation (1)

The next step is to move to the second row and start the process over again. It will be seen that “crisp” has one set of connec­tions which are identical to “car­bonation” and thus could be plotted (and is so plotted in Figure 1) next to “carbonation.” “Crisp” also has connections to “quality” (8), and thus a new chain is started. It can be seen by inspecting Table 2 that “expen­sive” (3) has 12 direct connec­tions with “quality.” Starting with a “3-8” chain, “quality” (8) is connected to “reward” (16) four times, so we can include a line between “quality” and “re­ward,” thus yielding a “3-8-16” chain. “Quality” also leads to “sophisticated image” (17) four times directly and four times in­directly for a total of eight con­nections; therefore, we can con­nect these two elements in the HVM. In scanning row 17 of Table 2 it can be seem that “so­phisticated image” has 11 direct linkages with “impress others,” so that these two elements can be connected in the HVM.

In a similar fashion, “fancy label” and “bottle shape” (4 and 5) have two direct and two direct linkages with “more femi­nine” (13), and that “more femi­nine” has seven direct linkages with “sophisticated image” (17). Examination of rows 6, 7, 9, 11, and 14 (less alcohol, smaller size, filling, consume less, and avoid negatives of alcohol) have linkages only with “able to so­cialize” (element 19). Thus in Figure 1, it is only “able to so­cialize” that links up with any el­ements on the left side of the HVM. It is only at the values level, “belonging,” that the right side of the map is connected to the elements of the left side.

The goal of mapping these hi­erarchical relations is to intercon­nect all the meaningful chains in a map in which all relations are plotted with no crossing lines (which in almost all studies is possible). This results in a map which includes all relevant rela­tions and yet is easy to read and interpret. The HVM in Figure 1 accounts for 94.5 percent of all the direct and indirect relations contained in the 67 ladders from which it was developed.

Having plotted all relations, it is desirable to look at all elements in the map in terms of the numbers of direct and indirect relations they have with other el­ements, both in terms of other elements leading into them and in terms of their connections to higher order elements. Table 3 presents the sums of the direct and indirect relations for each el­ement. For example, “belonging” (22), at the values level, is the el­ement which has the most ele­ments leading to it. Thus, it might be seen as the core value in terms of importance to the product class. In addition, three other elements are noteworthy for having a high frequency of elements leading from them as well as into them, namely, “re­ward” (16), “impress others” (18), and “quality” (8). Indeed, the quality **—>** reward **—>** impress others —> belonging chain can be seen to have a high number of relations among its respective elements.

**Determining Dominant Per­ceptual Orientations. Once a** hi­erarchical value **map** is con­structed, one typically considers any pathway from bottom to top as a potential chain representing a perceptual orientation. For ex­ample, in Figure 1 the total number of unique pathways be­tween elements at the attribute level and elements at the values

**Table 3**

**Summary of Direct (XX)** and **Indi­rect (YY) Relations for Each Element (XX.YY)**

**Code To From**

1 15.35 0.00  
 2 7.23 0.00  
 3 17.30 0.00  
 4 6.14 0.00  
 5 5.10 0.00  
 6 6.60 0.00  
 7 4.05 0.00  
 8 19.23 9.00  
 9 5.12 0.00  
 10 16.26 16.00  
 11 5.09 5.00  
 12 14.22 15.00  
 13 6.09 6.04  
 14 10.05 10.05  
 15 2.00 4.01

16 20.11 25.33  
 17 15.05 15.15

18 20.00 21.40  
 19 8.00 8.11  
 20 0.00 14.25  
 21 0.00 9.12  
 22 0.00 20.56

23 0.00 15.37

level is 23, any or all of which ­warrant consideration. To more fully understand the strength of the chains, the intra-chain relations can be summarized and evaluated. The portions within Table 4 demonstrate this process. Table 4 includes detailing of the relations for four chains within Figure 1 in an easier-to-read format than tracking them down in the row-column frequency matrix in Table 2. Part A of Table 4 shows the direct and indirect relations linking “carbonation” with “accomplishment.” It can be seen by inspection that all elements are linked directly or indirectly to all other elements in the chain. “Carbonation” has six indirect linkages with “accomplishment,” meaning that these two elements are included in six respondents’ ladders. “Refreshing”

**Table 4**

**Partitions of Chains by Relations**

**Part A ‘Carbonatian—accomplishment’ chain**

**0 2 10 12 16 20 0**

2 0.00 4.00 0.04 0.04 0.00 4.06  
 10 0.00 0.00 10.00 5.10 0.04 15.14  
 12 0.00 0.00 0.00 14.00 0.06 14.06  
 16 0.00 0.00 0.00 0.00 8.00 800  
 20 0.00 0.00 0.00 0.00 0.00 000  
 0 0.00 0.00 0.00 0.00 0.00 41.28

**Part B “Carbonation—self-esteem” chain**

**0 1 10 12 16 18 23 0**

1 0.00 10.00 4.06 0.14 0.04 0.04 14.26

10 0.00 0.00 10.00 15.10. 0.06 0.02 15.18

12 0.00 0.00 0.00 14.00 0.08 0.04 14.12

16 0.00 0.00 0.00 0.00 11.00 1.05 12.05

18 0.00 0.00 0.00 0.00 0.00 9.00 9.00

23 0.00 0.00 0.00 0.00 0.00 0.00 0.00

0 0.00 0.00 0.00 0.00 0.00 0.00 64.63

**Part C “Less alcohol—belonging” chain**

**0 6 14 19 22 0**

6 0.00 5.00 1.01 0.01 6.02  
 14 0.00 0.00 5.00 0.04 5.04  
 19 0.00 0.00 0.00 5.00 5.00  
 22 0.00 0.00 0.00 0.00 0.00  
 0 0.00 0.00 0.00 0.00 16.06

**Part D ‘Bottle shape—self-esteem” chain**

**0 5 13 17 18 23 0**

5 0.00 2.02 1.03 0.00 0.03 3.08  
 13 0.00 0.00 7.00 0.02 0.04 7.06  
 17 0.00 0.00 0.00 4.00 5.03 9.03  
 18 0.00 0.00 0.00 0.00 9.00 9.00  
 23 0.00 0.00 0.00 0.00 0.00 0.00  
 0 0.00 0.00 0.00 0.00 0.00 28.17

and “thirst-quenching” have four and six indirect linkages, respec­tively, and “reward” has eight direct linkages with “accomplish­ment.” In all, the chain accounts for 51 direct relations among ele­ments and 46 indirect relations.

Part B of Table 4 shows the “carbonation— self-esteem” chain. This chain accounts for more direct relations than does the chain in Part A of Table 4. It is also longer, having more ele­ments in it. In general, the linkages among elements at the bottom of this chain have fewer linkages with the elements at the top of the chain. “Refreshing” has only two indirect linkages with “self-esteem.”

In Part C of Table 4, a chain is shown that has fewer elements and accounts for far fewer rela­tions. It can also be seen that “less alcohol” is not strongly as­sociated with “socialize” or “be­longing.” Such a weakness, as indicated by the lack of associa­tions respondents are making be­tween these elements, might represent an opportunity for a campaign to strengthen this tie (in the beer category this indeed is what the L.A. brand has done in its advertising in the low-al­cohol segment of that category).

Part D of Table 4 shows that, whereas “bottle shape” and “more feminine” are linked to “sophisticated image,” there is not a strong association with “impress others.” This may sug­gest more of an internal orienta­tion while the “expensive— quality” association with “im­press others” is quite strong and may be reflective of an external orientation.

**Applications**

Accordingly, consideration can now be made of the options available to the researcher who uses the laddering approach and is faced with the challenge of applying the results to the solution of some marketing problem. The HVM obtained through the lad­dering procedure offers several particularly valuable types of in­formation. It can serve as a basis for: (1) segmenting consumers — with respect to their values ori­entations for a product class or brand; (2) for assessing brands or products in a fashion similar to the use of more traditional ratings; (3) evaluating competi­tive advertising; and (4) as a basis for developing advertising strategies.

**Segmentation.** The goal of segmentation schemes is to clas­sify respondents with respect to some aspect of their behavior, at­titudes, or dispositions in a way that helps us understand them as consumers. The values orienta­tions in a person’s ladder may serve as the basis for classifica­tion, or the researcher may group these values at a still higher level. it is also possible to include attribute-value connections in the segmentation scheme. Once a segmentation scheme has been developed, respondents’ brand-consumption behavior or reac­tions to advertising may be assessed.

Table 5 includes a summary by attribute and value for respon­dents whose ladders extended to the values level. “Belonging” was included in the most ladders, with “self-esteem,” “accomplish­ment,” and “family life” fol­lowing in decreasing order of fre­quency (nine ladders did not reach the values level and thus are omitted from this analysis). The values can be grouped at a higher level using “achievement” and “social” as higher-level value orientations. An equal number of subjects fall into each of these two values-level orientations.

One could also include the at­tribute-value connections in the segmentation scheme, assessing them at the levels used in the HVM or in grouping them as shown in Table 5 into marketing-mix components. In this ex­ample, the attributes “less al­cohol” and “filling” are linked to social values, whereas “price” is tied more closely to achievement values. “Packaging” attributes are equally divided, although “size” is identified with social values, not achievement values.

­

**Table 5**

**Ladder Frequencies for Attribute-Value Linkage**

Achievement Social

Accomplishment Self-esteem Total Belonging Family life Total  
 (14) (15) (29) (20) (9) (29)

Physical attributes 6 4 10 10 7 17  
Carbonation 6 4 10 0 0 0  
Crisp 0 0 0 7 0 7  
Less alcohol 0 0 0 1 4 5  
Filling 0 0 0 2 3 5  
Price 7 5 12 5 0 5  
Packaging 1 6 7 5 2 7  
 Label 1 3 4 2 0 2  
 Shape 0 3 3 2 0 2  
 Size 0 0 0 1 2 3

Nine ladders did not reach the values level.

Respondent segments could be studied for brand-consumption differences and preferences and advertising reactions evaluated. These segmentation bases could be translated into larger scale re­search on brand usage and pref­erence and advertising theme evaluation. That is, the findings from this research could become the basis for more traditional paper-and-pencil methods that more readily lend themselves to large-scale data collection.

Product/Brand Assessment Evaluation of a product or brand is another important marketing question for which the results of laddering research may be of use. It is advantageous to allow re­spondents to use their own frame of reference when providing their evaluations of a brand rather than some researcher-sup­plied attributes that may not be the subject’s own. For many product categories or subclasses of categories, respondents are much more likely to make prefer­ence judgments at the conse­quence and values levels than at the attribute level (Reynolds, Gutman, and Fiedler, 1984; Reynolds and Jamieson, 1984).

A statistical approach, Cogni­tive Differentiation Analysis (CDA), has been developed (Reynolds, 1983; Reynolds and Sutrick, 1986) to enable re­searchers to determine the level of abstraction (attribute, conse­quence, or value) at which preference judgments are being made by consumers. This approach provides indices indicating the discrimination power of each of the descriptors with respect to a set of pairwise discrimination between stimuli. To collect data for this type of analysis, respon­dents are asked to sort or rate pairwise combinations of brands in the relevant product class ac­cording to their respective pref­erence distance. Respondents are also asked to provide information on the extent to which the brands possess or satisfy the ele­ments at each level of abstraction in their ladders. One appealing feature of this analytical method is that it only requires ordinal data—no interval scale proper­ties are necessary.

This information not only allows a determination of the levels within a respondent’s ladder at which preference is de­termined, but the overall index of the ladder allows the researcher to determine each respondent’s optimal ladder. Results from CDA analyses have shown that people are not particularly good at recognizing their own most discriminating way of evaluating the brands within a product class, nor do they recognize the level of abstraction at which their judgments are being made (see Reynolds [1985] for a detailed summary of the method and the results). This suggests that re­searchers ought to be suspicious of self-report rating systems in­herent in many attitude models and consumer surveys.

The output from laddering, coupled with the unique analyt­ical procedures it allows, pro­vides res2archers with a better understanding of the basis upon which consumers make distinc­tions between competing brands. Further, it provides a basis for developing a product space that is truly aligned with preference, as such spatial maps may be ob­tained using different levels of abstraction as a frame of refer­ence. Too often product-planning decisions are based on discrimi­nation differences and not pref­erence differences. Consumers, given the means-end framework, are assumed to have multiple orientations that are triggered by a given occasional context (i.e., combination of situation and actors). Thus, if the means-end perspective is valid, preference would in most cases be multidi­mensional in nature. Therefore, the laddering approach provides a unique opportunity to under­stand the product class in the consumer’s own context. This would seem to provide a good start for making decisions about products and brands.

Assessing **Advertising.** An­other important use for the re­sults obtained through laddering research is to uncover respon­dents’ evaluations of advertising. Advertising is viewed differently when perceived in the context of different levels of abstraction (at­tribute, consequence, and value). To accomplish this, after lad­dering, when respondents are sensitized to the complete range of their internal feelings about a product class, they are shown a series of ads and asked to rate them on the extent to which the ad communicates at each level and to provide some comment on why it does or does not commu­nicate at that level.

Analysis of these comments leads to the construction of a series of statements reflecting their content. To further broaden the coverage of these statements, a model depicting an advertising research paradigm can be used (see Figure 2). This model (Reynolds and Trivedi) indicates the components of an ad in rela­tion to levels of involvement the consumer may have with the ad. Fifty to sixty statements can be developed covering the adver­tising’s message elements, execu­tional frameworks, perceptions of the advertisers’ strategy and in­volvement with the ad, involve­ment of the ad with the respon­dent’s personal life, and the ex­tent to which the ad taps into values at a personal level.

These statements can then be used to assess the relative com­munication at the various levels.

**Figure 2**

**Advertising Research Paradigm Based on Means-End Chain Model and Hierarchical Value Structure Analysis**

Ad Person

Level How ad relates to personal values

|

| What ad makes me think of

|

*| Consumer Benefit*

*|* Perceptions of **Involvement**

of advertisers’ strategy What ad does to me while I watch

|  
| *Executional Framework   
|* Actors/situations

|

*| Message Elements*

*|* Attributes  
|

Abstraction

This can be accomplished, after a sensitizing laddering procedure, by showing ads and asking “if the following statement applies” to each respective ad. This pro­cess can be operationalized by a game-board approach (Gutman and Reynolds, 1987) where a tri­angle is provided to the respon­dent with each vertex repre­senting a separate ad. The use of three ads is suggested as an at­tempt to avoid the respondent from becoming too much of an advertising expert. As each state­ment is read the respondent can record the applicability to one ad (recording the statement code at the respective vertex), or two ads (recording on the connecting line), or all three (recording in the middle of the triangle). If the statement does not apply to any of the three ads, a “not appli­cable” response alternative is also provided.

The resulting percentage en­dorsement of each statement for each advertisement provides a good indication of how the ad is viewed and the level at which the ad communicates. That is, some ads may communicate well at the attribute level but not at the con­sequence or values level. Con­versely, other ads may commu­nicate well at the values level but be weak at the attribute level. An effective ad in this context is de­fined as one which communicates across all levels, linking at­tributes to benefits and to per­sonal values which often drive consumer decision-making.

**Developing Advertising Strategy.** Perhaps the major ben­efit of laddering is the insight it provides to advertising strate­gists. A definition of advertising communications which will permit advertising strategies to be developed from the HVM will be briefly discussed (see Reynolds and Gutman [1984] for a fuller discussion and illustra­tion). The levels of abstraction framework, which underlie the formation of means-end chains, provide a basis for coordinating the results of laddering to adver­tising strategy development. That is, the perceptual constructs de­picted in the HVM can be used as the basis for developing a strategy that will appeal to con­sumers with that particular orientation toward the product class.

Figure 3 shows the Means-Ends Conceptualization of Com­ponents of Advertising Strategy (MECCAS) in terms of five broad characteristics that correspond to the levels of abstraction concep­tualization (Olson and Reynolds, 1983; Reynolds and Gutman, 1984). “Driving force,” “con­sumer benefit,” and “message elements” are directly coordi­nated to the values, conse­quences, and attributes levels of the means-end model. The exe­cutional framework relates to the scenario for the advertisement— the “vehicle” by which the value orientation is to be communi­cated. The specification of this tone for the advertisement is a critical aspect of strategy specifi­cation. It comes from an overall understanding of the way of per­ceiving the product class as indi­cated by a particular means-end path. As is apparent with this specification, added guidance can be given to creatives without in­fringing on their creativity.

The remaining and key aspect of advertising strategy specifica­tion is the concept of ‘leverage point.” Having all the other ele­ments in mind, it is finally neces­sary to specify the manner by which the values-level focus will be activated for the advertise­ment, that is, how the values considerations in the advertise­ment are connected to the specific features of the advertise­ment. (Examples of advertising strategy specifications are not provided—the references cited above provide ample illustrations.)

Nonetheless, the advantages of being able to specify advertising strategy for all relevant parties— management, creatives, and re­searchers—can be reviewed. The strategy statement itself becomes a concrete way of specifying ad­vertising strategy alternatives. These alternatives are linked to the chains which underlie them, and thus a direct connection exists between the strategy and the perceptual orientation of the consumer. Furthermore, the MECCAS model coupled with the results from the HVM facili­tate the development of several (truly different) strategies for comparison and review. Lastly, when a strategy has been se~• lected for execution, the MECCAS model provides for a better common understanding of what the final product should be. This obviously leads to the use of the MECCAS specification as the basis for evaluating the effective­ness of the advertisement.

### Figure 3

**Means-Ends Conceptualization of Components of Advertising Strategy**

*Driving Force* The value orientation of the strategy: the end-level to be focused on in the advertising.

*Leverage Point* -The manner by which the advertising will ‘tap into,” reach, or activate the value or end-level of focus; the specific key way in which the value is linked to the specific features of the advertising.

*Executional Framework* The overall scenario or action plot, plus the details of the advertising execution. The executional framework provides the “vehicle” by which the value orientation is communicated; especially the gestalt of the advertisement; its overall tone and style.

*Consumer Benefit* The major positive consequences for the consumer that are explicitly communicated. verbally or visually, in the advertising.

*Message Elements* The specific attributes, consequences, or features about the product that are communicated verbally or visually.

**Summary**

This article reviews and illus­trates the technique of laddering both as an interviewing process and through subsequent analysis. It demonstrates the technique’s usefulness in developing an un­derstanding of how consumers translate the attributes of products into meaningful associ­ations with respect to self-de­fining attitudes and values. The underlying theory behind the method, Means-End Theory, is discussed, as well as the ele­ments of the means-end chains representing the cognitive levels of abstraction: attributes, conse­quences, and values.

The interview environment necessary for laddering to take place is given special attention along with the particular probing techniques employed in the qual­itative process of laddering. Basi­cally, the respondent has to feel as if on a voyage of self-discovery and that the object of the trip is to revisit everyday, commonplace experiences and examine the as­sumptions and desires driving seemingly simple choice behavior.

Several specific interviewing devices are described for eliciting product distinctions from re­spondents that serve to initiate the laddering process, among them the use of triads, exploring preference-consumption differ­ences, and examining how con­sumption differs by occasion. The value of the occasional context, providing a concrete frame of reference to generate meaningful distinctions, is emphasized. Other techniques ~or moving the laddering interview upward when blocking occurs are also discussed and illustrated.

The analysis of laddering data is detailed noting the critical dif­ference between this method­ology and more traditional quali­tative research, namely, the pri­mary output being (structurally) quantitative in nature in the form of a hierarchical value map (HVM). In this vein, the content analysis of ladder elements is po­sitioned as an important step in this “crossing over” from the qualitative to quantitative.

Detailed attention is paid to the construction of the HVM from the implication matrix, which represents the number of direct and indirect linkages between the qualitative concepts elicited during the laddering process. Five types of relations among el­ements are discussed, and their respective implications for con­structing a HVM are illustrated.

Having the HVM to work with, the next step in transforming the output of laddering into useful information for marketing deci­sion-making is to determine the dominant perceptual orienta­tions. That is, all potential pathways (connections among el­ements) must be examined to de­termine their relative strength of association. Two primary consid­erations are specified with ex­amples, namely, the number of relations among elements within the chain and the extent to which all elements are interconnected.

Lastly, the issue of applications is discussed referencing the key research problems of perceptual segmentation, determining the importance weights of the various components of the ladders, and the development and subsequent assessment of advertising from this value per­spective. All of the application areas have in common that they depend on laddering’s ability to draw out from the respondent the true basis for any meaningful connection they have to the product class.

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**Appendix**

**Raw Data from Hypothetical Wine Cooler Data**

**Respondent Content codes**

**number**

**1 1 10 12 16 20 0  
 2 1 10 16 0 0 0  
 3 1 10 12 16 16 23  
 4 3 6 20 0 0 0  
 5 4 17 20 0 0 0  
 6 2 10 12 16 18 22  
 7 I 12 16 20 0 0  
 8 3 8 20 0 0 0  
 9 1 12 16 18 23 0  
 10 1 10 16 0 0 0  
 11 3 8 20 0 0 0  
 12 2 10 12 16 18 22  
 13 1 12 16 20 0 0  
 14 1 12 16 18 23 0  
 15 1 10 12 16 20 0  
 16 3 16 20 0 0 0  
 17 1 10 12 16 20 0  
 18 2 10 12 16 18 22  
 19 1 10 12 16 18 23  
 20 1 10 16 0 0 0  
 21 2 10 12 16 18 22  
 22 3 20 0 0 0 0  
 23 1 10 12 16 20 0  
 24 1 10 16 0 0 0  
 25 3 6 16 20 0 0  
 26 3 6 16 18 23 0  
 27 3 8 18 20 0 0  
 28 3 18 23 0 0 0  
 29 3 16 23 0 0 0  
 30 3 8 18 22 0 0  
 31 3 8 17 18 23 0**

**32 3 7 18 23 0 0**

**33 4 13 17 18 23 0  
 34 4 13 17 18 22 0  
 35 5 13 17 23 0 0**

**36 5 17 23 0 0 0  
 37 4 17 23 0 0 0  
 38 5 13 22 0 0 0  
 39 6 14 18 22 0 0  
 40 6 14 21 0 0 0  
 41 6 14 18 0 0 0  
 42 6 14 21 0 0 0  
 43 6 14 21 0 0 0  
 44 9 11 14 19 22 0  
 45 9 11 14 19 21 0  
 46 9 11 14 21 0 0  
 47 9 1 14 19 22 0  
 48 7 15 21 0 0 0  
 49 7 15 21 0 0 0  
 50 7 15 0 0 0 0  
 51 3 8 16 18 22 0  
 52 3 8 18 22 0 0  
 53 2 8 17 22 0 0**

**54 3 8 16 18 22 0  
 55 3 8 18 22 0 0**

**56 2 8 17 22 0 0**

57 2 8 17 19 22 0  
 58 1 8 15 0 0 0  
 59 6 10 16 0 0 0  
 60 6 12 0 0 0 0  
 61 6 19 21 0 0 0  
 62 7 11 14 19 22 0  
 63 4 8 13 17 23 0  
 64 4 8 13 17 22 0  
 65 5 8 13 17 23 0  
 66 5 10 13 17 22 0  
 67 9 19 21 0 0 0

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