

# LADDERING:

## A Research Interview Technique for Uncovering Core Values

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THE LADDERING METHOD OF INTERVIEWING ... IS A TECHNIQUE THAT IS PARTICULARLY HELPFUL IN ELICITING GOALS AND UNDERLYING VALUES, AND THEREFORE, POSSIBLY HELPFUL DURING EARLY STAGES OF USER EXPERIENCE RESEARCH.

EARLY MARKETING PRACTITIONERS CONCEIVED AND REFINED A MODEL FOR DESCRIBING THE LINKAGES BETWEEN CUSTOMERS' VALUES AND THEIR OVERALL PURCHASING BEHAVIOR: THE MEANS END CHAIN THEORY.

A number of my previous *Research That Works* columns on UXmatters have focused on semi-structured user research techniques. My interest in these techniques stems from my desire to get the most out of my time with research participants and to leverage foundational work from other disciplines to gain unique insights for user experience design. With this in mind, a colleague of mine recommended that I try the laddering method of interviewing, which is a technique that is particularly helpful in eliciting goals and underlying values, and therefore, possibly helpful during early stages of user experience research, as I learned after a brief review of the literature on this topic. This column introduces the laddering technique and describes my first experience trying it for myself.

### BACKGROUND—FROM LADDERING TO THE MEANS END CHAIN

Clinical psychologists first introduced the laddering technique in the 1960s, as a method of understanding people's core values and beliefs. The technique is powerful, because it provides a simple and systematic way of establishing an individual's core set of constructs on how they view the world. Laddering is well established in the field of psychology, and its success has led researchers in other industries to adapt its core tenets to their fields.

Specifically, market researchers have adapted the laddering method for use in consumer and organizational research. However, in addition to adapting the research method itself, early marketing practitioners conceived and refined a model for describing the linkages between customers' values and their overall

purchasing behavior: the Means End Chain theory. This theory provides both a framework for capturing qualitative laddering research data in the consumer space and a model for assessing consumer values and behaviors.

According to the *Means End Chain theory*, there is a hierarchy of consumer perceptions and product knowledge that ranges from attributes (A) to consumption consequences (C) to personal values (V), as follows:

**attributes**—At the top level of this hierarchy, attributes are most recognizable by individuals. Individuals recognize the attributes of a product or system easily. For example, "I like this car, because it is a convertible."

**consequences**—In turn, the attributes have consequences for the individual. For example, the convertible makes its driver feel young and free. Each attribute may have one or more consequences for any given individual.

**core values**—Finally, each consequence is linked to a core value of the person's life. For example, the sense of youth makes that driver feel attractive.

In theory, for each area of a product or application, an A-C-V sequence forms a chain, or *ladder*, that indicates the relationship between a product attribute and a core value. We can collect all the ladders for a given domain to form a *Hierarchical Value Map* that illustrates all the major means-end and attribute-consequence-value connections and describes individuals' behavior based on their core values. Typically, these maps contain many product attributes that are linked to a smaller set of consequences, which are, in turn, mapped to a core set of individual values.

AN A-C-V SEQUENCE FORMS  
A CHAIN, OR LADDER, THAT  
INDICATES THE RELATIONSHIP  
BETWEEN A PRODUCT  
ATTRIBUTE AND A CORE VALUE.  
WHEN YOU FIRST ASK  
INDIVIDUALS WHY THEY  
BOUGHT A PRODUCT OR LIKE  
A PARTICULAR APPLICATION,  
THEY WILL LIKELY RESPOND  
BY DESCRIBING PRODUCT  
ATTRIBUTES.  
THE CONSEQUENCES OF  
PARTICULAR ATTRIBUTES  
REVEAL MORE PERSONAL  
ASPECTS OF THE INDIVIDUAL'S  
RELATIONSHIP WITH THE  
PRODUCT OR APPLICATION.

While particular individuals are likely to have specific nuances to their sets of ladders and value maps, we can recognize and document high-level patterns across different customer types or personas. The real power of the Means End Chain model is that it emphasizes *why* and *how* products are important in an individual's life, going beyond a reported description of functional attributes or properties.

#### Attributes

To better understand the limited significance of attributes, consider the following example. When you first ask individuals why they bought a product or like a particular application, they will likely respond by describing product attributes. These attributes may include quality, price, brand name, or the inclusion of particular features. However, while such product attributes may be recognizable to individuals, they don't necessarily get at the underlying reason for purchase or use. For example:

**Q:** "Why did you select those wedding invitations?"

**A:** "I really liked the traditional design and the heavy card stock."

This answer from a research participant accurately describes the reason for the purchase. However, a researcher who focuses only on such responses will miss the opportunity to explore the consequences that the individual associates with those attributes.

#### Consequences

Understanding the impact of certain attributes—rather than just recognizing the presence of the attributes alone—reveals a significantly greater number of insights about the individual's behaviors. The consequences of particular attributes reveal more personal aspects of the individual's relationship with the product or application. Often, inexperienced researchers fail to follow up on the consequences of various attributes. Neglecting to do this is, obviously, not recommended, because we can use many of the

insights we gain to inform strategy decisions for our products. To continue the previous example:

**Q:** "Why is the heavy card stock important to you?"

**A:** "The heavy card stock makes the event seem more formal and substantial."

By asking *Why?* to get research participants to elaborate on their initial answers, we can elicit responses that reveal more about the emotional values of an individual. Compared to lists of product attributes, the responses at this level are much more thoughtful and come closer to the real reasons an individual chooses a particular product or behaves in a certain way. From a marketing perspective, understanding the consequences of product or application attributes can provide the basis for marketing messages or branding.

#### Values

The reasons people buy something, opt-in to a community or service, or adopt a process are *not* always clear, even to the individuals making the decisions. As I noted above, people usually respond readily to questions about their selection of a given product or service at the attribute level, but their responses usually do *not* reveal their core reasons for adoption. The Means End Chain theory suggests that personal values play the most dominant role in directing individuals' choices. These personal values are individuals' core beliefs and are relatively stable perspectives that have a strong emotional impact. Examples are security, belonging, happiness, fun, and enjoyment.

**Q:** "Why is it important that the wedding be more formal and substantial?"

**A:** "My friends had fabulous weddings, and I really want to do something on par with them."

According to the Means End Chain, if we can uncover the core values that relate to a given product or application domain, such insights can have significant potential to inform product strategy and design decisions.

## CONDUCTING THE LADDERING

*Laddering* is the actual interview technique we can use to uncover the attributes, consequences, and values that the Means End Chain defines. To envision a laddering interview, think of the traditional image of a psychologist interviewing a patient, attempting to uncover the root cause of some behavior or problem. The patient may not be able to make connections between underlying issues and their manifestations, but through skilled interviewing, the psychologist can dig deeper and deeper to unearth insights that have relevance. A laddering interview for user experience research is similar.

First, ask participants to describe what kinds of features would be useful in or distinguish different products. The goal of this first step is to elicit the main product attributes from the participants. Initially, if you're lucky, participants may provide some answers that actually identify consequences, but most likely, they will describe attribute information. So, you must ask them to expand on their answers later in the interview.

Based on their initial responses relating to attributes, you can next turn to questions that address the consequences of the identified attributes. You should lead the participants to a higher level of questioning that forces them to think about the reasons for their attribute preferences. To achieve this, ask questions such as the following: *Why is this important to you? What does it mean to you? What is the meaning of this product having this attribute?* If necessary, ask such questions repeatedly, with the goal of understanding the consequences of the attributes you elicited during the first round of questioning.

To uncover personal values, employ the same type of *Why?* questions. While participants may not be able to enunciate a value for every consequence, your goal is to ask questions at

higher and higher levels of abstraction and assemble a good picture of each participant's ladder for a particular area of a product.

For a given product or application, there may be several areas under consideration in your research. Typically, during a laddering interview, you will lead participants through one area, or ladder, at a time. This allows participants to remain focused on each particular line of questioning. However, you should maintain a broad list of topics to cover and be aware of any areas that may overlap. Optionally, you can jump between consequences and attribute sets, but this requires a significant amount of cognitive focus on your part to keep track of everything.

With all of the data you've collected, you can perform a typical qualitative analysis to identify affinities and patterns across participants. In a formal study, you might detail a Hierarchical Value Map for each participant and identify areas of similarity and differences across participants. The end result of the analysis is a set of qualitative findings whose aim is to identify actionable insights for product strategy and design.

## MY EXPERIENCE

Having read some of the literature on laddering and the Means End Chain model, I thought these concepts would be particularly appropriate for the foundational research I do on UX design projects. When doing foundational research, I try to uncover the mental models of the target audience and understand their language and values. Designing for emotion, value, and meaning is becoming more important in user experience, so I was anxious to see whether laddering could help me uncover these dimensions of my intended audience.

During the initial research phase of a recent design project, I had the opportunity to give

FIRST, ASK PARTICIPANTS TO DESCRIBE WHAT KINDS OF FEATURES WOULD BE USEFUL IN OR DISTINGUISH DIFFERENT PRODUCTS. THE GOAL OF THIS FIRST STEP IS TO ELICIT THE MAIN PRODUCT ATTRIBUTES FROM THE PARTICIPANTS. TO UNCOVER PERSONAL VALUES, EMPLOY THE SAME TYPE OF WHY? QUESTIONS. WHILE PARTICIPANTS MAY NOT BE ABLE TO ENUNCIATE A VALUE FOR EVERY CONSEQUENCE, YOUR GOAL IS TO ASK QUESTIONS AT HIGHER AND HIGHER LEVELS OF ABSTRACTION.

WHEN DOING FOUNDATIONAL RESEARCH, I TRY TO UNCOVER THE MENTAL MODELS OF THE TARGET AUDIENCE AND UNDERSTAND THEIR LANGUAGE AND VALUES. MY HOPE IS THAT USING THE ESSENTIAL CONCEPTS OF THE LADDERING TECHNIQUE WILL HELP ME UNCOVER PEOPLE'S ROOT CONSEQUENCES AND VALUES, PROVIDING INSIGHTS THAT I CAN LEVERAGE IN MY DESIGN PROJECTS.

laddering a try. I arranged for 90-minute, one-on-one interviews with representative users in the target group. While I did not reserve the entire time for the laddering exercise, I started with it, and I allotted at least 45 minutes of each session to get through it. There was a lot to keep track of during the interviews, so fortunately I was able to record them and had the opportunity to go back and review the sessions. While laddering was helpful, there were definitely several lessons I learned along the way:

Laddering can be tedious for participants. Repeatedly asking *Why is that important?* is a bit like a three year old asking *Why?* in response to every answer his parent gives him. This is especially true when the response to the *Why?* is obvious. After experiencing the participants' tedium in the first several interviews, I made it a point to specifically tell each participant about the technique at the outset of an interview, setting the proper expectations about the method. This helped alleviate some of the tension between me and the participants.

Sometimes participants couldn't explain *why* an attribute was important, or *what* the consequence of an attribute was. This was especially true at the outset of each session when a participant was getting acclimated to the method. I found that it was best not to press participants on any one answer, but instead to keep track of questions they couldn't answer and come back to those issues later in a session once they'd gotten the hang of the method.

If participants had trouble reflecting on abstract reasons or articulating higher-level values, I found it helpful to suggest that they think of reasons they *wouldn't* do something or a value that *wasn't* their own. It was often easier for them to think of the negative dimension of a particular attribute or consequence.

Often, I found that speaking of similar offerings in the abstract did not elicit sufficiently detailed responses from participants. As I've seen in other research methods, asking participants to relate a personal experience in a given context helped uncover consequences and values that were difficult for them to articulate otherwise.

Overall, conducting a formal laddering interview is difficult. While it is a good technique for broad explorations and avoids the bias of a predetermined script, keeping track of the various ladders or avenues to explore based on participant responses is challenging. Add to it the challenge of minimizing the participants' tedium, and you have a lot to deal with.

## CONCLUSION

Asking *Why?* during research interviews seems rather obvious and straightforward. I have always tried to make it a point to structure my research interview scripts to ask *Why?* when following up on questions I've asked participants. However, the Means End Chain theory and the laddering method provide a focus and a direction for the *Why?* questions. While the actual implementation of the laddering technique may be difficult and cumbersome, I found a general awareness of the goals for asking *Why?* to be helpful. My hope is that using the essential concepts of the laddering technique will help me uncover people's root consequences and values, providing insights that I can leverage in my design projects.