Research Design and Methods for Studying Cultures

Victor De Munck

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Preface

A Method Is Part of a Research Design and Not a Stand-Alone Application

Books on methods are often organized as a collection of unrelated chapters. Typically, the author's strategy is to consider each method as an individual operation rather than as a functional, integral part of a research project. For instance, each chapter in Russell Bernard's book *Research Methods in Cultural Anthropology* (2006) covers a different topic, and the chapters do not overlap. Another approach is exemplified by Michael Angrosino's (2002) edited volume *Doing Cultural Anthropology*, in which each chapter is written by a different author, who gives a short overview of a particular method and then gives guidelines for the student projects.

Both of these method books, as all method books that I am aware of, present methods as modular units, rather than as parts of a whole that entail each other. The advantage is that the reader can usually pick and choose chapters as needed. The disadvantage, as I see it, is that this does not correspond to the actual experiences of how field research unfolds from conception to practice to analysis. When researchers decide on which methods to use for research, they always consider how the methods fit into the larger research design. Even though a method is usually

implemented as a modular, independent unit of the research design, it is often derived directly from previous methods, or as part of a chain of methods for both data collection and analysis. In other words, any method is part of a holistic enterprise.

A research design must be flexible and adaptive because when dealing with human beings in their natural settings, nothing goes as planned. Anthropological methods are grandly ambitious and as a result often messy, since their purpose is to describe and explain culture in the field rather than in the more controlled settings. To complicate anthropological research even more, the objective of a field researcher is usually to understand a "culture" from the point of view of the members of the culture; this is called the **emic** perspective. Members of a culture are not automatons but human agents, with different knowledge, values, dispositions, interests, attitudes, and so forth. Some are likely to be hostile, others sympathetic; some revealing, others secretive; some knowledgeable, others ignorant. Some are likely to view things pessimistically, and others optimistically . . . and so on. Gathering data in the field is a messy business. "Culture" is put in double quotes because no one ever studies *the* culture, but always some sample of people from a community, or from a population of individuals who are assumed to be a cohesive group, which in turn represents the culture.[1]

[Not] Dealing with Cultural Cacophony

As a graduate student, I went to Sri Lanka in 1979 to conduct fieldwork. None of my training or readings really prepared me for the cacophony of voices that was to follow. My first taste of cultural cacophony was when I went, with a trilingual (Sinhala, Tamil, and English) Sri Lankan assistant, to interview Buddhist pilgrims at a remote temple. I asked very basic questions: "What brought you here?" "What god are you coming to worship?" "Tell me something about the god." I assumed that the pilgrims had similar reasons for coming and similar knowledge of the various shrines, gods, and forms of worship. To my surprise, their answers were widely divergent, without any obvious, non-

trivial cultural pattern emerging. I had presumed that a shared, relatively homogeneous set of answers would emerge when asking pilgrims questions about their reasons for worshipping at a small shrine. Instead, I was completely decentered, when all I was seemingly accosted by was cultural cacophony.

I understood quickly that the challenge before me was to deal with this "booming, buzzing confusion," this diversity within a culture. This came as somewhat of an intellectual shock because most, if not all, of the books I had read, including postmodern ethnographies (i.e., those that emphasize reflexivity, subjectivity, and the impossibility of objectivity, and reject cutting a culture up into subsystems), had offered relatively coherent and homogeneous renderings of culture. Most ethnographies offer accounts that are presumed to reflect the typical, normative cultural patterns of everyday life. Even in this postmodern age, the inevitable cognitive and emotional confusion resulting from encountering cultural cacophony rather than homogeneity is not often discussed in ethnographies, and when it is it is usually relegated to a subheading in the preface. However, not unlike someone staring at a Rorschach figure, the anthropologist eventually discovers shared meaning. Furthermore, just as in making sense of a Rorschach, the shared meaning is not so much in what is observed but in mental images that individuals use to search for and find cultural patterns and, hence, meaning. Underlying cacophony—or rather, side by side with it—there always is some kind of cultural homogeneity, a shared view of culture by members of that culture.

Objectives of This Book

As a result of twenty-seven years of research in three different cultural areas (South Asia, Eastern Europe, and the United States), I have learned something about methods and how one works with them in the context of fieldwork. My goal is to present methods as they are part of this unique and majestic enterprise. To do so, I will discuss the variety of methods I used to conduct research in Sri Lanka and Lithuania, and secondarily

in the United States and Russia, from 2002 to 2005. I received a National Science Foundation grant to study and compare "cultural models of romantic love in Russia, Lithuania and the U.S." The Sri Lankan data used here was not part of this grant but had been previously collected. I use the Sri Lanka data because it gives me the best example of participant observation as a "method" for data collection. I did not conduct comprehensive participant observation in Lithuania, Russia, or the United States on romantic love, simply because one is not given entry into this intimate sphere of life. Data collection consisted of questionnaire and interview data, neither of which are equivalent to participant observation; in Sri Lanka, the majority of my data was gathered through participant observation. In all chapters but the participant-observation chapter, my Lithuanian data will be used; for some comparative purposes, the U.S. and Russian data will be used.

In this book I will describe (1) the development and components of a research design, (2) the employment of the research design, and (3) the problems of conducting field research in a natural setting while attempting to conduct scientific research. The actual process of fieldwork is much messier than the written research design. In Sri Lanka, Lithuania, the United States, and Russia, whenever I moved through the stages of research, nothing seemed to go according to plan. I learned that this is not uncommon, though it is seldom written about.

I will describe the realities of anthropological fieldwork and research, with a particular focus on methods. This monograph thus starts with the first stage, that of getting an idea about what to study, and proceeds through the next stage, that of writing the research design; the initial stages of data collection; the latter stages of data analysis; and the final stage, that of using one's findings for writing articles and giving presentations. Each chapter presents actual data collected by each method, and each method is discussed as it is part of a larger whole, the research design and its implementation.

Only a morsel of my analysis of romantic love is presented here, and I hope it is not too unsatisfying. I think it is heuristically worthwhile to retain these morsels as actual examples of

methods for each chapter. If I were to elaborate on my analysis much more than I have done, the book would cease to be one that was about methods and become a volume that was more about my own analysis of the romantic love data. For this reason, I do worry that the analysis of the data is inconclusive enough to irk the reader and rouse his or her curiosity about my findings; but I do think it is sufficient for showing the strength of each method. I included my data and analysis to show (1) how methods are linked together throughout the research project, with each new method, in part, entailed by the findings of previous methods; and (2) that theory, hypothesis, data collection, and analysis form a circular, or better, spiral feedback system through which research ideally proceeds and progresses.

This book will be useful for all those who would engage in fieldwork. I hope they will see how the methods I employed fit together, and that they will observe that research does not consist of one theory and one method implemented perfectly and providing exactly the necessary data, but rather moves along in fits and starts, requiring the researcher to be part Sherlock Holmes, part administrator, and part adventurer, with his or her success also relying in part on the kindness of strangers, and in part on luck.

Organization of the Book

The first chapter examines how you go about deciding what you want to study. This is an introspective chapter, and the gist of it is that you must be true to your own interests. The second chapter describes the basics of developing a scientific research design. In this chapter, the reader will learn about problem-oriented (i.e., *inferential*) and descriptive research, theory building, hypothesis, operationalization of variables, falsifiability, threats to validity, and so on. The third chapter describes freelisting techniques; the fourth is on pile sorting, covering also multidimensional scaling and hierarchical clustering methods. The fifth chapter describes how to design, distribute, and analyze questionnaires. The sixth covers consensus analysis and explains why this method

is of particular importance to the study of culture. The seventh chapter is concerned with long interviews. The eighth chapter introduces a "new method" I have developed with my research assistant, Meghan Garry, which offers a means to integrate emic and **etic** and quantitative and qualitative procedures within an interview context. The ninth is on participant observations; and in the conclusion I offer a "where do we go from here?" essay that seeks to persuade the reader of the necessity for synthesizing subjectivity and objectivity perspectives within an anthropological research design geared for fieldwork. The conclusion also makes a pitch for integrating reductionist and holistic approaches to research. Finally, there is a glossary (which includes most of the words that are **bolded**), as well as a bibliography.

A Paean to Participant Observation

One might think that the last two chapters, on participant observation and problems in doing fieldwork, should be in the first part of the book. However, I want to emphasize that participant observation is the most difficult of methods, and also that it is a very powerful method. In previous writings on methods, I was skeptical of participant observation, and considered it as more descriptive and exploratory, at best presenting an *idiographic* (i.e., local) theory rather than a *nomothetic* (i.e., universal) theory of human life. I now think that participant observation is the jewel on the crown of field methodology and is in need of much further refinement. I would suggest another, larger methods book that focused exclusively on participant observation, in order to provide a canon for conducting participant observation.

Two problems that social-science researchers have to face and that can only be resolved through participant observation are (1) how do the "natives" really think, feel, and act? and (2) how are the things that "natives" really think, feel, and act related to one another? The latter is the "life's world" problem described by Karl Popper (1994). Popper points out the impossibility of ever knowing the effects of any one variable, as each variable is

influenced by a variety of other variables, and these variables, in turn, are affected by a host of other variables, and so on. Similarly, in everyday life, a student's plans (for instance) to study for an important exam depend not only on the intention of the student but also on the student's health, which itself depends on sleep and diet, among other things; and sleep depends on where one sleeps, outside noise, quality of the bed, temperature of the room, and so forth. This complexity of interactions led Popper to argue that we can never know anything with certainty, but we can have confidence in the probability of cause-effect relationships. Only through repeated social encounters as a participant observer, rather than as a researcher, can the anthropologist acquire a sense of the ontological correspondence between data and life, text and action. For all these reasons, the participant-observation chapter is at the end of the book rather than at the beginning.

People Are not Rocks

Finally, this book concludes with an account of the difficulties of "doing science" in the field, and a call to find a new way of doing science that combine subjectivity and objectivity. People do not act like rocks, light, atoms, or anything else in the physical and natural world. A science of rocks doesn't work for people. This everybody agrees on, but what is the next step? This remains to be seen. Complexity and chaos paradigms also do not satisfy, except as metaphors. Regardless of this problem, my goal is that by the end of the book the reader will have enough information to actually undertake a research design, to consider the problems presented herein, and to do a better job avoiding the theoretical and practical pitfalls than I did.

Using Computer Programs

It is difficult for me to imagine that someone could conduct scientific fieldwork without using various computer programs

specializing in methods. The main program that I have relied on in this book is ANTHROPAC. Unfortunately, it is a DOS program, which causes my students to groan and to assume that these are old-fashioned, outdated methods. This is most definitely not the case; I have challenged many expert users of sophisticated statistical programs (e.g., SPSS) to emulate, with equal facility, some of the functions that ANTHROPAC performs, such as freelisting and pile sorting. No one has succeeded in meeting this challenge. ANTHROPAC is the only computer program that provides an extensive array of methods specifically designed for analyzing anthropological (i.e., cultural) data.

An explicit attribute of culture is that it is shared; obviously, then, cultural researchers seek to discover what members of a culture share, rather than what makes groups distinct from one another. Statistical packages are designed to evaluate significant differences between samples; ANTHROPAC is designed to detect what is shared among the members of a group. Second, ANTHROPAC is designed so that numerical and textual data can be used simultaneously, whereas such intermixing is not possible in statistical packages. For these reasons, ANTHROPAC remains the best methodological package for anthropologists. You can obtain a free shareware version of ANTHROPAC at www.analytictech.com.

It is not mandatory that you use or know ANTHROPAC in order to acquire the skills needed for utilizing the methods described in this book. Methods are not equivalent to software applications. In addition to ANTHROPAC, I have relied on SPSS 12 for analyzing questionnaires, and on NVivo 8 for coding and analyzing narrative data.

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Note

1. For more on the problem of defining culture, see De Munck (2000) and Brumann (1999).

I

RESEARCH DESIGN

1

Step 1

What Is It That You Want to Study?

The first thing to do is to find out what you are really interested in. This is not such an easy thing to do. As a student, you have had long years of training in being told what to do by unquestioned authorities—that is, your parents and teachers. Further rewards are usually meted out to those who do what their bosses (e.g., parents, teachers, employers) want them to do. This leads to your having a rather undeveloped sense of your own academic/intellectual interests, socializing you to be an intellectual Zelig (or chameleon).[1] The better (so to speak) socialized you are, the less your capacity to discern your own interests, unless your interests are identical to those of your bosses.

As an undergraduate and, even more so, as a graduate student, you find out that you get attention from professors if your interests mesh with theirs. Zick Rubin (1988, ix), one of the first psychologists to study love scientifically, says that as a graduate student he tried to hide the fact that he was studying love from his adviser and other faculty, because he worried that they would consider it a trivial academic pursuit and not be interested in supporting his fledgling career as a social psychologist. Professors take an interest in students who show academic promise, but they become positively enthused when such students also express a desire to follow in the footsteps of the professor.

At the graduate level, this matching of interests becomes more intense and is rewarded by research-assistant positions, fellowships, and an apprentice relationship with one's adviser. The graduate student will be asked to do work that the professor has little time or inclination for. Over time, individuals in the graduate-student-as-apprentice role are collectively transformed into a symbolic progeny, who, the professor hopes, will cite and acclaim his or her works, thus helping him or her attain a type of academic immortality. For the professor (and, it is expected, for the advisee), the academic relationship is symbolically equivalent to the parent-child relationship. This relationship is a natural and inevitable part of the academic life that is, ideally, mutually beneficial. But the downside of it is that the graduate student has been molded into an image that suits his or her mentor(s) but which may not match the image the graduate student had in mind. The conflict can lead to suppressing or repressing your own interests since the goal of graduate school is, first and foremost, to survive, and, second, to succeed and get a job, usually as a professor. Consequently, you can be uncertain about what your interests are.

Furthermore, disciplines have, as everyone knows, fashions, and people get caught up in those fashions. If Foucault is an icon in your department, chances are you will have read him and not, say Kim Romney, a cognitive anthropologist, or Lee Munroe, a crosscultural psychological anthropologist. When I was a graduate student, Clifford Geertz's name was anathema to my professors. We were so prejudiced against Geertz that when we did read him, we were quick to glean his faults and slow to recognize, if not blind to, his strengths. (An emotionally conditioned scowl still rises to my consciousness whenever Geertz's work is discussed.) Thus graduate students tend to reproduce the biases of their mentors, if not of their departments. The hegemony of the dominant theoretical biases of your department (if the department has a theoretical consensus) or of your mentors can, in the worst instance, detract from your own strength and blind you to your own interests.

The point is that you do have to reflect, to listen to your own internal voice, in order to choose a subject to study. It is

very easy to decide to study something for the wrong reason. However, you will be more creative, be more motivated, and do better work if you choose a subject of study that interests you deeply. I should add that many people are likely to say, "Everything interests me." Indeed, if this is so, then you have to figure out how to conduct a holistic ethnography, and what aspects of the ethnography you want to focus on: the self as agent, or how structure or ideology shapes the person. There is always a significant and difficult intellectual parsing that goes on in discovering what you are really interested in, even if it is "everything." My undergraduate professor Theodore Schwartz once said in class (to the best of my recollection), "Being a student is a bit like going into a funhouse and looking in one of those distorted mirrors: You will see many different possibilities for yourself. The immature person becomes entranced by all these possible visions; the mature person chooses the one that most suits him and sticks with it." The key joy of academic life is that it gives you the freedom to pursue your own interests. Don't give this up so easily and, more importantly, reflect deeply on what you want to pursue intellectually. Eventually you will discover what your interests really are.

As a student, you need to think about what you want to study, within the constraints of the class requirements. If you like poetry or tattoos, or you are interested in transvestites, dwarfs, presidents, astronomers, or any other topic, then study that. But the caveat is that you cannot just study the subject in any way you like. If you are doing a project for a cultural anthropology methods course, then you must study poetry within the context of that field. If you want to know if people read poetry, then ask people to list poets they know or have read; ask them to recite verses; see what bits of poetry are scattered in the public domain and who knows what. You will find out something interesting about people's knowledge of poetry (or lack thereof). If you are interested in an interpretive approach and also in poetry, but you still want to be "doing science," then consider taking short poems from various poets and having a number of people interpret them for you. See if the interpretations are similar; is there is a cultural code for interpreting poetry? What specifically makes

some poetry accessible and some not? Have people read poems and give you a line-by-line rating of "degree of difficulty." Do people write poetry? What kind of poetry do they write? Do males and females write different kinds of private poetry? Perhaps I've given more examples than necessary; but I simply want to emphasize that it is not science that is limiting, but the researcher who is limiting in her or his use of science. In short, all interests can be subject to systematic, scientific inquiry.

"A man's got to know his limitations"

This famous Clint Eastwood quote fits many situations and will come up more than once in this book. The main point here is "just keep it simple." To illustrate: a person who doesn't have a sense of his own limitations is someone who wants to study the "meaning of life"; the person who recognizes her limitations will choose to study something simple, like "how people greet each other." The "meaning of life" is all about opinions—it is everything and nothing. In contrast, "greeting behavior" is something you can wrap your head around. This doesn't mean you have to study "little" subjects and leave the grand themes to others. Consider Newton observing an apple falling from a tree and asking, "Now what made the apple fall?"

To paraphrase William Blake, the poet, you can discover "the universe in a grain of sand." The grain of sand is something you can hold, weigh, act on, see . . . in a word, study; but the universe, as the starting point of inquiry, offers nothing to mentally hang on to or grasp. The brain must find an anchor, something objective and empirical from which it can expand into more ethereal zones of thought, if that's where you want to go. But it is best, especially at the beginning, to "keep it simple." For instance, a handshake is something you can see, photograph, measure in terms of length and intensity, and consider as reflecting status equality or friendship; initiating an interaction; ending a conflict; and so on. The handshake may differ among people, from the fancy handshakes of "the streets" to the plain

"vanilla" handshake found in the business world. With handshakes, as with other greetings, there is a starting point, and then a multiplicity of things to consider: context, age, gender, social status, type of relation, ethnicity, ideology, and so on. Thus, indeed, the universe can be discovered through observing handshakes, and not the other way around. Even here, a word of warning is needed: you can study some aspects of greetings, but not all!

When you are figuring out what it is that you want to study it is important that you can visualize its key components, such as a handshake or bow. If you cannot visualize the key **symbols** organizing your research, then it is unlikely that you can wrap your mind around what you intend to do. If your goal is to study something more abstract than a greeting—like anger, conservatism, or the "political life of things"—then you should still be able to conjure up an image that clearly reflects this interest. Of the three items above, clearly anger is the easiest to visualize, and probably to study. Conservatism is not associated with any prototypical image, but it is associated, in the West, with a particular social, moral, political, and economic orientation. Thus one can address one or more of these orientations. The "political life of things" is more ambiguous, and thus greater effort is required to visualize it in a way that makes sense.

Research takes time and effort and is often a collaborative project. You have to assess realistically whether you have the time to do the research you want to do. If you have only ten hours that you can devote to a project, then make sure your project can be done within that time constraint. If you can work on the project a few hours a week for one semester, then you can add on different methods to test, or expand on, initial impressions and results. Assess beforehand how much time you have and what you can reasonably do. If you have twenty hours and want to do interviews, you may be able to conduct ten one-hour interviews, but you cannot transcribe the tapes in the remaining ten hours. It takes, on average, four to six hours to transcribe one hour of tape; and then to code and analyze one hour of transcribed tape can take up to ten hours.

Knowing What You Want to Do

Often research fails because the researchers don't really know what it is they want to know. A researcher may say she wants to find out about national identity. That is a worthwhile pursuit, but first the question has to be deconstructed. What do you mean by "national," and what do you mean by "identity"? By "national," do you mean something like Canadians, Americans, Russians, Lithuanians, or Sri Lankans? If, for instance, you want to study Sri Lankans, do you mean to include Sri Lankan Muslims, Tamils, Burghers (descendants of white colonial families), aboriginal groups, and/or Sri Lankan families who live abroad but have Sri Lankan citizenship? If you mean just the majority Sinhala, then you are referring to a large, amorphous ethnic group. But within this group will you also include professed atheists, Christians, and those of other religious denominations? Or do you really mean just the majority Sinhala Buddhists? If so, then you are really not talking about a *nation* as it is usually understood—that is, as a specific large territory, where national citizenship belongs to anyone born within the territory. Instead you are talking about a group defined by territory, ethnicity, and religion. Even within this group, do you mean rural or urban, Westernized or traditional, rich or poor?

Introspect!

Knowing what you want to do and recognizing your limitations requires serious introspection. Introspection is a significant part of your research, and you should acquire some routine for introspection, if you haven't done so already. I introspect when swimming, while driving, before going to sleep, and, most often, after waking. It is good to keep a notebook where you can write down your thoughts. Otherwise, you will lose them!

Introspection requires having something to introspect on, to focus on. It should be considered a process rather than a state. For instance, when beginning to conduct my research on romantic love, I asked myself, "Why did I choose this topic?"; "What is

it that motivated me to study it?"; and "Is it something I really want to study?" I decided that it was because I was personally fascinated by romantic love as it affected my life. I then began to think about how romantic love creates a world separate from the social world I was grappling with daily. Furthermore, romantic love is clearly one of the main motivational forces in life, and couples seem motivated to create a "culture of two" in a way that marks this relationship as unique and more intimate than all other types of relationships. It seems that through the impetus of romantic love, couples create both the most elemental of all social relationships—the dyad—and at the same time one of the most complex of all relationships. Thus, introspecting about romantic love provides me a way to think about and study the basic elements of culture, as well as of social relations. I also thought of Mahatma Gandhi and of how he, Martin Luther King, Jesus, and other world heroes preached universal love, and of how the study of love writ large is really the study of the most noble impulses in humans, and of the impulse that keeps us together and alive, rather than in perpetual conflict and perhaps dead.

These thoughts did not come in one "introspective sitting," but over time. They were part of a process of introspection. Through such introspection, I became more confident that this was what I wanted to study. I began to understand why and how I wanted to study it. Unlike meditation, introspection is not a state that one achieves in order to be there; rather, it is a means to an end, to solving a problem—in this case, "do I really want to study romantic love?" In meditation, the act of meditation is the end, whereas it is the means to an end when introspecting.

Note

1. "Zelig" is a reference to a Woody Allen movie of the same title, in which the lead character can take on both the physical and behavioral features of the people around him. Thus, he can even alter his shape, growing a beard, gaining weight, and so forth.

2

Research Design

What Is a Research Design?

My position is that if you can't visualize it, then you don't know what you are talking about. Einstein said about the same when he said that any theory, including the theory of general relativity, should be explainable in simple enough terms that your grandmother will understand it. By implication, if your grandmother says "huh?" after your explanation of any scheme, it is probably not only she who doesn't understand what you are talking about. From this, I formulated **Einstein's injunction**, which is that "if you can't explain your theory to your grandmother in a way that makes sense to her, then you don't know what you are talking about." Thus, to answer the question in the heading above, we have to be able to visualize a research design as we can visualize, say, a penguin—or a better analogy would be that of visualizing the building of a birdhouse, as the latter, like a research design, is a process and not a thing.

I want to emphasize that a research design is not the same as the actual research. Research design is to research what a football game plan is to the actual game. It is an idealized blueprint which one tries to follow. Some aspects of the research design are more flexible than others. The design, as it is usually visualized, has a linear sequence of steps analogous to that used

in building a birdhouse. One doesn't just build a birdhouse accidentally; it takes, as we see below, a surprising amount of thought, and it entails actions not dissimilar to those involved in creating a research design.

First, one needs to have seen birds and notice that they have nests (i.e., ***observation***). One recognizes that nests are for birds what houses are for humans; one likes watching birds; and one then decides to build a birdhouse for them (i.e., ***pattern recognition, motivation, goal***). The pattern recognition, motivation, and goal complex (**PRMG**) will be discussed in great detail later. I believe that this complex is akin to a cultural model and is the cultural unit that most anthropological research designs seek to discover, describe, and explain.

The decision to build a birdhouse is based on the ***theory*** that "birds live in nests, which are like houses, and if you build a house for a bird it will live in it." A theory is usually a two-pronged statement consisting of an explanation and a prediction. In the above statement, the explanation can be paraphrased as "birds build nests in order to live in them," and the prediction as "if you build a nest, some bird will come and live in it." The two theoretical statements express recognition of a pattern of bird behavior, the motivation for that behavior, and the goals of that behavior. Thus, theoretical statements pertaining to human (or animal) behavior often include the PRMG sequence.

Theories based on native explanations and predictions are emic theories, while those that are based on the researcher's own explanations and predictions are etic theories. In a crudely simple way, *emic* refers to inside perspective and *etic* to outside perspective. However, an outsider perspective may also be **ethnocentric**, which always implies a prejudicial value judgment of members of another culture. Etic and ethnocentric are different because *etic* refers to an outside expert's assessment of why or how people do or say things. For instance, fraternal polyandry, which is practiced in the Himalayan region of Nepal and Tibet, is explained emically as a means of keeping land together, and etically as a means of birth control, since there is a scarcity of arable land in the Himalayas. Both explanations are sensible, but the latter is not one used by the natives themselves. An

ethnocentric assessment would be that polyandry indicates that women in that region are highly promiscuous. Etic perspectives may overlap with both emic and ethnocentric perspectives, but they are intended to establish general laws or correlations across cultures and between cultures and the environment. Most ethnographic theories are emically derived, as they seek to present native, or "folk," theories; while comparative, crosscultural theories are etic.[1]

After the big decision to build a birdhouse has been made, you will probably find it necessary to collect information on what size and shape birdhouse to build, where to put it, and what materials you need. In other words, you need to conduct a ***literature review***. Then there is an assessment and reconnoitering of resources—financial resources, time, material resources, and personal skills (i.e., ***resource assessment and grant writing***).

If all systems are "go" to this point, then one buys the materials needed to build a birdhouse and makes a plan for the house (i.e., one establishes the ***methodology***). Things usually don't go as planned, so there are some makeshift alterations; but the end goal, the building of a birdhouse, has a redactive or backward force on the decisions made when building it (i.e., method 1: actual data collection). No matter how one deviates from the plan, the goal must always be kept in sight, and it puts a limit on the kinds of deviations one can make (i.e., method 2: data analysis and results). You can't just make a doghouse, for instance, and call it a birdhouse; the actual birdhouse you make has to correspond to the one that you intended to design, and the design has to correspond either in function or form with an actual bird's nest. To ensure both **internal validity** (i.e., a correspondence between the design and the birdhouse) and **external validity** (i.e., a correspondence between the birdhouse build and an actual bird's nest), one has to attend to **threats to validity**. Thus, initial assessment and end goal are fixed points. In between there can be a straight line or a drunkard's walk (within limits, however) to the goal, depending on one's efficiency and external conditions (i.e., *contingencies*).

Not all researchers agree with the linear (or wiggly) model of research design described above; many think it is too narrow

and unrealistic. For instance, Howard Becker (1986), a leading qualitative researcher in education, suggests that research is a "shared" and ongoing process undertaken between the researcher and his or her subjects. He argues that research design is a comprehensive, ongoing act, and not a linear blueprint. In his classic research on medical students, he (with his coauthors) wrote,

> In one sense our study had no design. That is we had no well-worked out set of hypotheses to be tested, no data-gathering instruments purposely designed to secure information relevant to these hypotheses, no set of analytic procedures specified in advance. Insofar as the term "design" implies these features of elaborate prior planning, our study had none. If we take the idea of design in a larger and looser sense, using it to identify those elements of order, system, and consistency our procedures did exhibit, our study had a design. We can say what this was by describing our original view of the problem, our theoretical and methodological commitments, and the way these affected our research and were affected by it as we proceeded. (Becker et al. 1961, 17)

Perhaps a more extreme view of the statement above is what is called the "garbage can" model of research, in which methods, theory, resources, and solutions are in a continuous feedback relationship, each modifying the other during a research project. The garbage can metaphor asserts that actual research is an ad hoc affair, much messier than what is presented in the tidy models found in texts on methods. The antistructural representation of the garbage can model of research design does tap into the messiness of doing research; but it ignores the important blueprint that researchers construct, which they do use as a guideline for conducting research. A road map does not correspond with one's actual travel from point A to point B, but one cannot travel without it.

In the following account on research design, I will describe research design as a linear model, with the proviso that subsequent chapters on "doing methods in the field" will describe the messiness that is an inevitable part of fieldwork. I begin with a

discussion on ethnography, as the methods described here are for the field and not for the lab. The remainder of this chapter follows the sequence highlighted in bold and italics above. I conclude this chapter with a discussion of ethics. I emphasize that this is not the only model for research design, but I view it as a pragmatic model that corresponds particularly well with the conditions of fieldwork.

Ethnography and Methods

Ethnographic research is either **problem oriented** or **holistic**. The holistic/problem-oriented divide is fuzzy. Contemporary ethnographies are usually problem oriented, whereas prior to 1986 or so, most ethnographies were holistic.[2] Holistic ethnographic research means that the researcher goes into the field for a minimum of a year, with the objective of describing all the "major" cultural practices of the members of that community. A holistic ethnography often has a specific theme, such as medical practices, religion, or cultural change; but even though the ethnography is thematically driven, the ethnographer attempts to integrate (or embed) the particular theme with many other aspects of culture. Holistic ethnographies consider the interrelationships between cultural subsystems as they affect individuals and shape the *lifeways* (i.e., behavioral routines) and *cultural norms* (i.e., culturally expected behaviors) of the members of that culture.

Problem-oriented ethnography is usually (though not always) done in considerably less time than holistic ethnography. Problem-oriented ethnography focuses on one particular problem, excluding, more or less, everything that doesn't directly impact on that problem. A problem-oriented ethnography on exorcism in Sri Lanka would take no account or little account of anything but the exorcism itself; a holistic ethnography would undertake to show how economic, kinship, political, and other cultural subsystems all impacted on the exorcism.

When you decide to do a holistic ethnography, you want to observe and experience culture in the whole, much as you do in

your own culture. When you decide to do a problem-oriented ethnography, you want to focus on one theme and background other aspects of life. The distinction is significant, with the former being, on the face of it, a much more ambitious project. There are, unfortunately, neither the resources nor the market for a really comprehensive ethnography.

In contrast to laboratory or more controlled settings for collecting data on humans, fieldwork relies on collecting **contextualized data** and using **unobtrusive measures** in the native's natural setting.[3] For instance, the informant does not go to the researcher, but rather the researcher goes to find informants in their natural settings. *Unobtrusive* refers to the attempt to elicit data either indirectly or informally, without framing the process of data collection as a "data collection situation." This by no means implies that the research in the field necessarily relies on deception. The informants are aware of the researcher's task, but the data is collected as part of the stream of encounters of everyday life, and not as something separate. Unobtrusive measures are often obtained indirectly, without any direct interaction between research and informants (Webb et al. 1981). For instance, in a study on radio listening preferences, a researcher went to auto repair shops and found out what radio station the cars being serviced were tuned to (Trochim 2005, 127). It is true that at times the researcher will develop structured questionnaires; but, even then, data collection occurs in a relaxed context, at a time and in a place comfortable for the informant. Formal questionnaires are also typically generated out of, and are always intended to complement, participant observational data.

Contextualized implies that variables are not, like a butterfly collection, extracted and desiccated of life, but are always manifested as part of the dynamic hubbub of everyday life. Contextualized data describes "situated actions" (Moerman 1969), and contextualized variables are not studied as if they are independent phenomena. For instance, in everyday life the variable "gender" does not exist in itself, for seldom (if ever) is a person conceptualized as purely and solely male or female. Other variables inevitably interfere—age, status, appearance, role, goals, situation, and so forth. Anthropologists aim to col-

lect data, or information, that would be expressed by natives regardless of the presence of the anthropologist. Ethnographers want to study **situated actions** that are not significantly affected by the presence of the ethnographer. Hence, unobtrusive and context-dependent strategies for data collection are necessary for assessing the relationship between variables and humans "in the wild." The difficulties in studying variables scientifically "in the wild" make the ethnographer's task the most ambitious endeavor in the social sciences.

I have emphasized that ethnography relies on and privileges contextualized data. But collecting and presenting contextualized data alone is an ideal that cannot be realized, and it is also not enough if we are going to explain cultural phenomena. The simple act of selecting what phenomena to discuss and transforming them into text is an act of reducing and decontextualizing the data. This is just the way it is. It is also necessary to decontextualize and extrapolate variables as independent "stand-alone" variables in order to understand their connections to other variables. Analysis depends on some process of reduction, of working from the whole to its parts. To return to the butterfly analogy, it is one thing to see a butterfly in nature, but sometimes it is important to capture it, observe it, and dissect it, in order to learn about how it flies, what it eats, or how it reproduces. This is why formal data-eliciting methods should accompany participant observation. The anthropologist tacks back and forth between holism and reductionism. A comprehensive, scientific ethnography entails both observing culture "in the wild" and carving culture up "at the joints."

Observation

An observation is not a simple thing. For instance, within the first thirty seconds in the classroom, a student will scan and notice the other students; the place where he or she sits in the classroom; the professor's gender, clothing style, face, hair, and demeanor; information on the blackboard . . . a multitude of information bits that are seamlessly bundled together, though

each can be seen as an independent unit of meaning. We grasp so much through observation because we already possess a **dynamic image** of our environment and our place in it. We use these a priori dynamic images to construct meaning from present sensory input. Observations are derived from matching what you see with what you expect to see. When the correspondence is similar, then the "making sense of what you see" occurs virtually automatically. On the other hand, when there are no mental models that resemble or explain what you see, then it is disturbing. The researcher investigates this disturbance; the layperson reads what the researcher found out. In short, observation often instigates social/cultural research and is also (usually) an unobtrusive method of data collection.

Pattern Recognition, Motivation, Goal

There is a *teleological* relationship (i.e., the end shapes the beginning) between pattern recognition, motivation, and goal, so that the goal–to find a particular pattern–precedes pattern recognition, and the goal causes and shapes the motivation–the psychological fuel–to search for a pattern. The PRMG triad is flawlessly constructed so that it is perceived (and conceptualized) as a holistic and dynamic image. A PRMG is a type of cultural model.[4] Pattern recognition depends on having such cultural models "in one's head." For example, if you look in a window and see people sitting around a table putting food in their mouths, you say something like "they must be eating," "this must be a restaurant," or something equally correct and incisive.

We recognize cultural patterns in the field by having simplified cultural models in our heads. These models consisting of goal, motivation, and behavior patterns are useful for interpreting, explaining, and predicting people's actions (including one's own). Let me add that any cultural model—indeed, any social science research—must include these three elements, for it is impossible to imagine conducting research on humans without thinking that human behavior is goal directed, that it has a

purpose. Consequently, whether we know it or not, PRMGs are elemental constituents of who we are and what we study.

Theory

A *theory* is a conceptual frame for describing observations or explaining their causes and effects. An example of a descriptive theory is the phonological task of recording patterns of distinctive linguistic utterances. An example of a cause-effect theory is "marriage is better for men than it is for women." The sense of this theory is that married men do better than unmarried man in a variety of ways (i.e., they rate themselves as happier, live longer and more satisfying lives, etc.), while married women do worse than unmarried women along these same measures. One may also compare married men to married women, but this begs the question of whether men generally do better along the various measures than women do whether or not they are married.

Theories of culture usually attempt to explain PRMGs—that is, some pattern of actions that is motivated and has a goal. PRMGs often have more than one function and, when they do, there is usually more than one theory that addresses the PRMG. Below, I provide three different PRMGs addressed from three different theoretical perspectives. It should be apparent to the reader that each PRMG could be addressed by the other two theories. The point is that a theory provides a way of conceptualizing a cultural behavior pattern and its attendant motivation(s) and goal(s). The first example fits a stimulus-response theoretical perspective, the second a rational-action perspective, and the third a social-structural perspective.

1. **Stimulus-response example:** An immigrant family to the United States is very poor. There is seldom enough money to buy food, buy clothes, or take care of basic expenses. The parents encourage and reward their three children for doing well at school, getting jobs, and saving their money. Each time one of the children gets an A on

a test, the parents give that child a special meal. All three children grow up to become economically successful. Their success, from this theoretical perspective, is a result of the stimulus-response socialization practices of their parents.

2. **Rational action example:** An individual decides that she wants to be rich (goal). She then decides to study very hard in high school and join a number of high-profile high school clubs (motivations), in order to apply to and be accepted by a university with a top business school. As in the above example, the person establishes a goal, which triggers motivations, and these together chart a course of action based on a causal pattern that she recognizes as leading toward her goal. Without some a priori recognition of the various feasible means (that is, images of behavioral patterns) that lead to wealth, the goal cannot be reached except through trial and error. In this example, the person is seen to make rational choices that lead her to her goal, and behavior is analyzed in terms of a rational-action model.
3. **Structural example:** A person from a wealthy family attends an elite private school and is accepted into Princeton, his father's alma mater. When he graduates, he is offered a job as a junior attorney in a well-known New York City law office. In this example, the structural assumption is that socioeconomic status (in this case, wealth) reproduces itself.

The researcher selects a theory that, ideally, best fits the PRMGs she is interested in studying. As above, the researcher can often choose from among many feasible alternative theories prior to conducting research. Since most researchers don't want to spend half their lives reading theory texts, they choose theories that they are comfortable with or that their advisers have told them to use. But most often, the field researcher will modify a theory or select a theory that best fits the data she has collected.

Literature Search, or How to Avoid "Rediscovering the Wheel"

It is highly unlikely that any idea that you want to study has not been thought about and studied before. It is your job to research all the important material that bears on your area of research. Your school reference librarian and the Internet are two great sources for conducting a literature search. However, beware: you can easily become overwhelmed by too much information. Remember, "a man's got to know his limitations," and there is only so much information you can digest. If you can read 50 pages a day and you read that many pages every day for one year, you will have read 18,250 pages. If a book is an average of 200 pages in length, then you will have read 91 books over that year. As academic books are much more difficult and one usually takes notes, we can reasonably cut this figure in half; so at most a person can, working every day, read about 45 books a year. A literature search on articles on "the self" in 2004 indicated that over 10,000 books and articles had been written on this topic alone. As a result of human limitations and the overwhelming number of texts on particular themes, it is important to be selective and parse your list to a manageable size. For example, if you only have one month and you are at school, probably the most you can expect to do is read 5 to 10 articles over that time. So you have to make sure you choose the right ones.

Citations Matter

A key step in finding out what you need to read is finding out what authors have been cited the most frequently on the topic. The best way to identify the people who are most cited on the subject of your research is to look at the Social Sciences Citation Index (a part of the Web of Science). You should divide the citation frequencies into decades. Thus, you could look at the most recent citation index and then categorize authors into various decades or other reasonable categories, such as classical, 1950s–1970s, 1980s, 1990s, and post-2000. This will give you

an idea of which authors have staying power and continue to have influence. Second, from an analysis of citations, you will be able to discern the path of advancement, or changes in the ways scholars have approached that particular subject of study. Third, a focus on recent articles and citations tells you what is of interest nowadays. In short, a focus on citations over decades gives you an understanding of who the prominent, influential scholars (or "key players") in the field are, and also of how the field has developed over time.

In terms of publication, it is fundamentally necessary to know whom you must cite and how these authors have contributed to the subject of study. A primary reason why papers are rejected for publication is that they do not engage the literature that is already out there on the subject. Not citing important and relevant work not only reflects ignorance about the field you are supposed to be an expert on, but also shows a lack of appreciation for the entire field.

Review Articles

Besides finding out who the prominent authors are by conducting a citation count using the Social Sciences Citation Index, it is important to find high-quality review articles. The best source for high-quality review articles is the *Annual Review of Anthropology*, published by Stanford University Press. Every year this volume comprises about twenty review articles, each written by an expert in the particular field; these reviews are usually thorough and clear, and they include most of the prominent authors in the respective fields. A significantly less important but still worthwhile source for review articles is the journal *Reviews in Anthropology*, which comes out four times a year and usually has four to five review articles per issue. *American Anthropologist* has also begun to publish review articles, but these are usually short review articles on three or so recently published books. There is also *Anthropological Abstracts*, which comes out annually and contains author, subject, and cultural area indexes of articles published in anthropological journals over the course of the year.

The Web of Science is an online source, and the *Annual Reviews* are also available online. Another major online source is the Anthropological Index Online, which contains an index of hundreds of major and minor periodicals housed at the Museum of Mankind Library in the British Museum. The largest online source of periodicals is the Anthropological Literature Index stored at the Tozzer Library of the Peabody Museum of Archaeology and Ethnology at Harvard University. *Anthropological Literature* is a quarterly journal indexing all the books and articles ordered by the library (over 850 journals). Most university libraries have access to these online databases, and members of the American Anthropological Association have free access to the Anthropological Literature Index database. The Anthropological Index Online database is free.

Resource Assessment and Grant Writing

Resource Assessment

After you have your topic of study and have conducted a literature review, you need to assess what resources you have, and which ones you need if you are going to carry out your research project. Resource assessment consists of three parts: knowledge, time, and finances. Each is discussed below.

Knowledge

What is it that you already know, and what is it that you want to find out? You need to assess how much information (or data) is sufficient to provide a convincing answer to your question. Convincingness depends on the adequacy of your sample and the appropriateness of your data collection methods and, most importantly, your analysis. There are sampling tools (e.g., the Spearman-Brown Prophesy Formula) that suggest that you need very few informants (usually less than forty and often as few as ten) to collect reliable and valid data for cultural analysis (Weller and Romney 1988, 71–72; Nunnally 1978).

What kind of information are you going to need? You cannot simply say, for example, "I want all the kinds of information necessary to describe neopagans in Lithuania." You cannot know everything about all the neopagans in Lithuania. Consider some group of neopagans or some subset of this group. If your project is holistic, then ask yourself (somewhat paradoxically), "What are the main constituent parts of this holistic enterprise?" A whole, like a human body, has some defining parts (e.g., head, torso, legs, arms). Are you interested in studying why people become neopagans, or what kind of people become neopagans, or how neopagan practices contrast with mainstream religions and satisfy different sociopsychological functions? Each of these questions implies some kind of part-whole relationship. For instance, the question "why do people become neopagans?" implies a list of reasons for joining that is a subset of a more complete list of human needs. The question "what kind of people become neopagans?" indicates a contrast between those kinds of people and those who don't become neopagans; and both these groups are subsets of the population of Lithuanians. The point is that most wholes are also parts of larger wholes and are, in part, shaped by those larger wholes, so that any rigorous distinction between holism (usually privileged in anthropology) and reductionism (usually scorned) is absolutely false.

In addition, you want to consider whether you are interested in values, beliefs, or other sorts of mental phenomena or actions; individuals; or social events. Or are you interested in some kind of connection between beliefs and actions? It is indeed very complicated. But you must pare down what kind of knowledge you are interested in and what kind you just don't need, for the purposes of your study. In doing so, you are either implicitly (not preferred) or explicitly (better) tapping into your own theory of culture. You may not have known you had one; but in deciding what knowledge (that is, what information) you want to obtain, you are implying that this is knowledge that is important in studying some aspect of culture. Hence you are using a theory. It behooves you to get acquainted with your own theory of culture.

If you are doing a class project, then you will be better off if you limit yourself to a problem-oriented study. You still have to decide how much data, and what kind of data, you need; but if you ask a clear enough question, the question should, itself, suggest answers. To return to our neopagan example: suppose you want to know why people join the neopagan movement, and you limit yourself to a sample of informants all of whom are neopagans. You ask them directly, "What are the reasons you became a neopagan?" This is not very nuanced, and it begs as many questions as it may answer; but it is simple, direct, and honest, and you will get enough responses that cover the primary reasons for becoming a neopagan. Whether these are really the reasons why people became neopagans is another question; but they are the emically generated appropriate answers to the question.

Time

How much time do you need to conduct your fieldwork? Be realistic. If it is a holistic ethnography and requires participant observation, then count on conducting research for a minimum of one year. You can do it in less time, but then you will have to cut corners. Participant observation cannot be hurried, because it is not a matter of what kind of person you are or how hard you work. It is built on mutual trust, and on learning how to live in the community and gain acceptance as a (pseudo/honorary) member of the community. Of course, fieldwork can be conducted in a business, hospital, school neighborhood, apartment complex, or any other location. No matter where it occurs, participant observation cannot be hurried, and it will depend both on your growing competency in participating in local life and on locals accepting you into their community. The field site must be personally manageable. You cannot do participant observation of a city, but you can do participant observation of a neighborhood in a city. You can't be everywhere or do everything.

Based on my experiences in Lithuania and Sri Lanka, it takes about three months to build up a sense of mutual familiarity and a modicum of trust between researcher and community

members. Full participant observation entails doing things that a typical member of the community would do, in addition to data-collection tasks. This means shopping in the neighborhood, having some people that you can talk to in a friendly fashion, knowing the cultural geography of the community, and knowing how to behave appropriately in a variety of settings.

Even if you are not going to do participant observation and will rely on interviews and other more formal methods of data collection, it is still necessary to spend some time in the community in order to gain contextual knowledge and familiarity of the place you are working in; and to gain some trust from, and establish a rapport with, academics or other community members who will sympathize with you and assist in a variety of ways (e.g., recruiting informants, critiquing your methodology, helping you phrase questions appropriately, helping you make sure you use the proper etiquette in approaching potential informants). I would suggest that if you find that the people in the area where you are working are not simpatico, then leave and go somewhere else, unless you are a masochist.

Even if you are only conducting a survey of twenty scaled questions, it is still important to spend some time gaining familiarity with the people to whom you will be distributing the questionnaires, and the area where you will be doing so. This is not even to mention the problem of sampling. (More on this later.) As I will discuss in the chapter on questionnaires, it is important to **pretest** your questions on a subsample of the target population, to find out what problems there might be in recruiting informants, which questions they don't understand as you intend, and so on. Pretesting the questionnaire; developing recruitment techniques; reassessing the questionnaire; discovering the proper places to recruit; and learning the proper etiquette for approaching, and introducing yourself to, informants all takes time—if you want to do it right.

All researchers have time limitations, and how much you can discover about a culture is directly proportional to the amount of time you have. The less time available, the more the researcher should rely on formal data-eliciting techniques and minimize the importance of context. If you have only three months, you

can do systematic observation but not participant observation. If you have six months, you might be able to do very limited participant observation, at one site at the most. Still, it is probably better to stick to observation, interviews, and questionnaires if you have less than a year in any locale. To repeat, good research based on participant observation takes a minimum of a year, if you want to do it right.

Finances

My best recommendation regarding finances is to consult with someone who has done a project of similar scope and ask about the budget. The granting agencies and your school's sponsored-funds program both have records available of previous grants and their budgets. Find out how to access these files. Ask your faculty members and friends who have written successful grants if you can have copies, and discuss with them problems they had in meeting their budgets. In other words, do some research prior to creating your own budget.

When you are beginning to consider the budget of your grant, contact the sponsoring agent of the grant by phone, not by e-mail. Everyone's time is valuable, so just stick to the problems you have; be honest and straightforward. If you are at a university that has a separate sponsored-research program, make friends with the person who will help you with your grant. That person's specialty is dealing with budget issues. If the sponsored-program officer is any good, he or she will go over your proposal carefully and ask you the concrete and relevant questions necessary for helping you develop a proper budget.

You will have to make estimates of travel costs; material costs; living expenses; stipends paid to assistants; and payments or gifts provided to informants. There are also a lot of nickel-and-dime costs that you simply cannot reckon prior to going into the field. You are not an accountant or a financial organizer. One of the main problems of any grant, once accepted, is how to manage the money. If there is too much, you will find that you are going to end up paying too much for too little. If there is too little, you will end up paying out of your own pocket. The devil

is in the details. No matter how careful you are in estimating the finances, it likely you will not have foreseen all the things that will add to your expenses, such as acquiring a monthly bus pass; buying a fifth tape recorder because the previous four were broken or lost; renting an apartment for three times the cost you have estimated; having to go through a number of assistants before finding one who is reliable and good; getting your laundry done; and so on. You will also need to consider that sometimes you will want to treat yourself to a break, possibly leaving the field site for a week or even a month to decompress.

Try to keep receipts. Having said that, I found that in Lithuania, Russia, and Sri Lanka getting receipts was often impossible. Lithuanian and Russian landlords seldom give receipts because they are usually renting to you illegally; and, even when it is aboveboard, they don't want any written records that can be traced back to them. Similarly, no informants were willing to sign their names acknowledging receipt of money in these countries. My assistants also discouraged paying informants, thinking it was a waste of money. They wanted to keep the money targeted for paying informants for themselves, because this was their chance to make some real money; and why give money to informants, they thought, when no researcher in these countries ever gives money for interviews or questionnaires?

The very act of paying for information reframes the relationship as a buyer-seller relationship. You cannot pay people in the context of participant observation without formalizing the relationship and thus destroying the intent of participant observation. Find other ways to pay back informants or the community at large. For instance, like many other anthropologists, I set up a small dispensary treating minor cuts and ailments in Sri Lanka; I started a weekly English class; and I helped assistants and informants find jobs, I wrote applications for jobs and to schools for them, and so on. I paid for driving lessons for one assistant who ended up becoming a bus driver, a prestigious job in village Sri Lanka. There are many creative and useful ways to pay back the community, but usually paying informants in cash is not one of them.

Having said this, in Russia and Lithuania, my field assistants did recommend paying informants for long (i.e., one-hour) interviews because it is difficult to recruit informants who are strangers otherwise. An interview requires a lot of "work," whereas a questionnaire usually does not. Questionnaires seldom took more than ten minutes, but an interview could take as long as one hour. For questionnaires we gave ballpoint pens, condoms, and other little gifts instead of cash.

My point is that many details of the finances in the field are quite different from what was anticipated and presented in the grant budget. This is an inevitable part of conducting fieldwork. There is a lot you cannot foresee or control; however, if you have developed a good budget plan at the beginning with the aid of your teacher(s), colleagues, and school granting officer, as well as the officer at the granting agency itself, you should come up with as honest and workable a financial package as possible.

Grant Writing

Writing a grant is different from writing an article. You are not just aiming to please a group of scholars with your ideas, but also administrators of a grant, who must evaluate if you can do what you say you are going to do, and if your budget is reasonable. Grant writing requires a balance of idealism and pragmatism. Your ideas count, but your methodology is equally important. Good ideas, convincing arguments, and a thorough literature review are important components of research; but it is critical that scholars agree with your methodology, and that administrators consider your goals worthwhile and realizable, and your budget fair. I remember that for my National Science Foundation grant to conduct research in Moscow, my initial estimate for a residence in Moscow was $1,500/month, which was what my school officer who had looked up per diems for Moscow had recommended. The granting officer wrote back that I was an anthropologist and not a businessman, and that he expected my rent to approximate that of locals. Our rent estimate dropped to $800/month, which turned out, with a great deal of help from

our Moscow friends, to be accurate. We lived in a typical Moscow flat in a sixteen-story apartment building. In order to get there from downtown (Pushkin Square), one went to the end of the Green Line on the metro and then took a bus for four more stops. This usually took a total of one and a half hours and was itself an adventure.

Your theoretical ideas, a discussion of the literature, your contributions to "the field," the methodology you will use, and budgetary considerations are all part of the equation for writing a grant; each component needs to be convincing and "pass muster."

Though a grant needs to be pragmatic, its ultimate value lies in the creativity of your theory and the soundness of your methods. Below is a checklist of questions that you should be able to answer yes to and also explain why or how so. If you can convince your readers to accept your answers, then you have a solid chance for getting a grant (though nothing is certain).

1. Do your ideas provide an insight that hasn't been fully explored yet?
2. Are your ideas worth pursuing?
3. Do they make an obvious contribution to the field?
4. Do you have any primary experience that shows you have firsthand familiarity with the topic you are going to be studying?
5. Do you have secondary experience in the chosen subject? That is, have you shown your competency in the field with your literature review and discussion of previous writing on the subject you intend to study? [This is more important than primary experience, but each is a big plus.]
6. Are you the person for the job, rather than a person who is biting off more than he or she can chew?
7. Does your methodology fit your ideas?
8. Are you methodologically sound enough to do what you say you are going to do?
9. Will you present your material to the public or interested professionals through publications, talks, brochures, popular media, or other means?

10. Are there real-world benefits that will come out of your research?

You need help when you write a grant, lots of help. My granting officer, a graduate-school cohort of my adviser, unexpectedly phoned me one evening and grilled me about my hypothesis and my methods. At the time, I was perspiring and nervous. But he made my grant stronger. I nicknamed him "the Hammer" thereafter. My sponsored-funds officer at the State University of New York, New Paltz, went over each phase of the budget with me more than once, and discussed the budget with his fellow officers at the National Science Foundation. The people who read my grant proposal were experts in the field. I had to convince them that I was acquainted with the literature and that theory and methods fit together. I should add that most of the referees were familiar with my work. All three audiences—granting officer, referees, and budget administrators—need to be convinced of the potential benefits and success of your proposal. You have to convince people that you can do what you say you are going to do. When you write a grant, give yourself a minimum of one month with nothing else to do.

Methodology

Finally, we get to methodology. Research design is the opposite of a Zen koan: a method is never just a method; it is always linked to a purpose, a theory, a timetable, a budget, and more. Let's start with defining methodology: **methodology** is the system of actions that are taken to implement and test ideas about the real world. The goal of a system of methods, like that of virtual reality, is to simulate real world processes and phenomena.

Suppose a person has an idea (which is really a dirty theory) such as "guys are idiots." Theoretically, this can be cleaned up so that it says something like "females are smarter than males." This general theory can then be broken down into a number of hypotheses. A **hypothesis** is a statement that can be falsified

and that establishes a relationship (usually causal) between two variables. One hypothesis derived from the above theory that "guys are idiots" reads as follows: "On a class test, females will get higher grades than male students." The hypothesis is a more specific version or indicator of the general theoretical statement. The hypothesis also implies a causal connection between gender and grades—there has to be a reason why one thinks females will score higher on a test. Neither our theory nor our hypothesis tells us anything about why females do better on tests than males; this would have to be explained by developing our theoretical statement even further. But if our hypothesis is confirmed, then our theory that females are smarter than males is strengthened, and we can use these results to support our claim. The more good hypotheses we have that confirm our theory, the more confident we can be that our claim that "females are smarter than males" is correct.

Variables

Measurement of Variables

For the above hypothesis, we have two variables: gender and test score. A **variable** is anything that can have more than one value (i.e., "variables vary in value"—say that ten times fast!). Gender is a variable that, for our purposes, takes two values, and test scores can take as many values as there are points on the test. Notice, from the respective ranges of values that our two variables can take, that we are comparing two very different kinds of variables. Gender is a *nominative* (or *nominal*) *variable*. The values of a nominative variable (such as gender) have values (like *male* and *female*) that indicate only a qualitative difference, not a quantitative difference. Thus we do not know how much of a difference there is between *male* and *female*, only that they are different. All **indicators** of any variable have to be **mutually exclusive**; a male cannot also be a female. The values of a variable must also include all the salient values that the variable can take; this is referred to as being **exhaustive**. We should account for all the values each variable can take. Whenever this

is next to impossible, we can use the fallback category *other*. Both gender and test score are variables that consist of an exhaustive, finite number of values, and each value is mutually exclusive (i.e., a score of 1 is not the same as a score of 2, and a male is not the same as a female).

What makes gender and test scores different kinds of variables? Note that the values for gender take qualitative, nominal values, but test score values are different; a score of 8 is exactly twice as much as a score of 4. The significance of the different values is measured quantitatively, and we can determine a *ratio* (i.e., 8 is twice as great as 4). Variables for whose values you can determine ratios are called (surprise!) *ratio variables*. Note that with a ratio variable you have a zero point; someone could score a zero on the test, and this is the key criterion that distinguishes ratio from *interval variables*.

Our concern with the relationship between gender and intelligence can produce other kinds of measures of the intelligence variable. From our theory we can hypothesize that females have, on average, a higher IQ than males. If we took a sample of senior English majors in a university and gave them IQ tests, we would expect that females would, on average, have a higher score. But here an IQ of 160 is not twice as much as an IQ of 80, even though the numbers do signify a sizable disparity in average IQ. (Remember, these numbers are hypothetical and not real!) Like Fahrenheit or Centigrade temperature, IQ is referred to as an interval variable because it does not have an absolute zero to anchor the values and, therefore, cannot be transformed into a ratio. The differences in values of an interval variable are measurable and can be numerically transformed into averages or nongeometric distances (i.e., a 120 IQ is 10 points higher than an IQ of 110); but they cannot be transformed into ratios because we don't know precisely how to translate that 10 points into a geometric distance (such as one in meters).[5] Thus, we cannot say that a person with a 120 IQ is twice as smart as someone with an IQ of 60. One may say that interval variables have less numerical precision and functionality than ratio variables.

Another way of evaluating intelligence is by asking people to mark the degree to which they agree with the statement "females

are generally smarter than males," with *5* equal to "strongly agree"; *4* to "somewhat agree"; *3* to "neither agree nor disagree"; *2* to "somewhat disagree"; and *1* to "strongly disagree." These numerical values indicate the general order of agreement; we know that informants who marked 5 agree with the statement more than those who marked 4, and those who marked 4 agreed more with the statement than those who marked 3, and so on; but we don't know how much more (or less), we just know that 5 signifies more agreement than does 4. Such variables are called *ordinal variables*, and they are typically used in questionnaire protocols.[6] Since each person uses his or her own evaluation to determine "strongly agree" or "somewhat agree"—as opposed to IQ scores, where the numbers are determined by a standardized test formula—the numerical values of ordinal variables are less precise and have less functionality than those of interval variables. We can still transform values into averages, but we cannot really say that the difference between 5 and 4 (i.e., 1) is the same as the difference between 3 (the neutral position) and 2 ("somewhat disagree"); it just doesn't make sense.

To summarize, variables run the gamut from ratio to nominal. Nominal variables like type of fruit (e.g., *apple*, *orange*), gender, or religion only signal differences in kind between values. For nominal variables, numbers are used only as frequency counts of the number of items that share a particular nominal value (e.g., "there are 20 males and 10 females in my class"). For ratio variables, the numerical value precisely and fully measures the relationship between the values of the variable. Age is a ratio variable because it can have an absolute zero value; we can say absolutely that someone who is thirty years old is twice as old as someone who is fifteen. Interval variables are like ratio variables in that the numerical distance between variable values is an important measure of difference; but here, this cannot be transformed into a ratio. The classic example is IQ, where it does not make sense to say that someone with a 120 IQ is twice as smart as someone with a 60 IQ. Ordinal variables are somewhere between nominal and interval variables in that the value does tell you if some value is more or less than another, but it cannot tell you how much more or less.

Relationship between Hypothesis and Variables

Variables are used to test your hypothesis. As noted above, you can choose among many different kinds of variables to test the same hypothesis. However, no matter what kind of variables you choose, you will always need to specify a relationship between, at minimum, two variables. For the purposes of this discussion, we will reduce test score to a nominal variable (with possible values of *high score* and *low score*). It is important to note that I am not reducing the variable from a ratio to a nominal one only to simplify the discussion; I also want to show you the best way I know to "think hypothetically." It is very important, in the initial stage of constructing a research design, to simplify variables so that you can "wrap your head around them." (There are always exceptions, except in this case!) Notice that this is a key theme that I return to throughout this and future sections. *If you can't visualize or draw it, you are just blowing smoke rings*.

Our argument above has been that females are smarter than males. We tested this general theory with a hypothesis derived from the theory: "Females will score significantly higher on a class test than males." Without knowing the underlying causal factors, we are stating a causal relationship between gender and test scores. The variable that causes something to happen is called the **independent variable**. The predicted outcome of the gender variable is that more females will have high scores than males. The test score is referred to as the **dependent variable** because in our hypothesis, the test score is dependent on gender and nothing else (again, according to our hypothesis).

We can now present our hypothesis of the relationship between gender and test score in a two-by-two contingency table.

Table 1 provides an easy-to-understand visual representation of our hypothesis. We can now easily "wrap our heads around" the hypothesis. Note that this doesn't mean we are correct, or even particularly clever. Our hypothesis, if proved correct, would result in significantly higher frequency counts for cells 1 and 4 (i.e., high scores for females, low scores for males) than in cells 2 and 3 (i.e., low scores for females, high scores for males). That is, we expect most females to have high test scores

Table 1. Contingency table of our hypothesis

		Test Scores: High	Test Scores: Low
Gender	Female	+	−
	Male	−	+

and only a few (cell 2) low test scores; conversely, we expect few males to have high test scores (cell 3) and most to have low test scores (cell 4).

To test significance, we would have to run a simple **significance test**. All a significance test will tell us is whether the frequency distribution of females and males on the test (with most females obtaining high test scores and most males low test scores) is likely to happen by chance. Significance is commonly set at .05, meaning that the probability of some pattern of recorded behaviors occurring is only likely to happen by chance 5 out of 100 times. The importance of the contingency table is to help us think about our hypothesis and the relationship between our variables.

Method 2: Data Analysis and Results

My colleague and friend Andrey Korotayev of the anthropology department at Moscow State University for the Humanities is fond of saying, "There is no bad data, only bad analysis." This is really another version of saying that the researcher must be aware of the limitations of the data. If we use a small sample for a questionnaire, or if we interview only one person, there is still something we can glean from the information provided; we just cannot be confident that we can generalize from it to a target population.

It is not a bad exercise to try to collect bad data; I propose that it is virtually—okay, *completely*—impossible to do. But there are many cases of bad analysis—for instance, with regard to the presence or absence of WMD in Iraq. The data was fine: it

indicated that there was no evidence of WMD in Iraq. Only the analysis left something to be desired.[7] Let me provide a fictive case of bad analysis that shows how an adherence to a particular theoretical perspective leads to bad analysis.

A Case of Theory, Data, and Plain Bad Analysis

Let us say that we are conducting a comparative study of two ethnic groups, Xs and Ys, and that there are twice as many Xs as Ys. Let us further say we wanted to compare the relationship between these two ethnic groups in terms of social success, with income being the indicator of success. Our theory is that the more intelligent and the more achievement motivated a person is, the more likely it is that this person will be successful. We surveyed a random sample of 800 Xs and 400 Ys about their income, and we arrived at the results shown in table 2.

Without a shadow of a doubt, we have significant correlation demonstrating that if you are an X, 100 percent of the time you will have a higher income than a Y. But we also thought that success should be correlated with and caused by personal qualities of individuals. Without any a priori (let us assume) ethnic/racial biases, we conclude that Xs are more intelligent and have greater achievement motivation than Ys. We might use IQ and personality tests to corroborate these findings. We then state that our comparison of the two ethnic groups in terms of cultural success shows that Xs are more successful because they are innately smarter than Ys. It seems a flawless argument, but is this in fact the case?

Let us present another graphic representation of the two populations, from a structural perspective. Let us say that we

Table 2. Contingency table of hypothetical results for the relation between income and Xs and Ys

	High Income	*Low Income*
X	800	0
Y	0	400

Table 3. Structural diagram of relationship between Xs and Ys at a factory

Administrative bosses	X	X	X	X
Employees	Y	Y	Y	Y
Foremen	X	X	X	X

have a sample of 8 Xs and 4 Ys at a factory, and we notice the structural relationship shown in table 3.

We can see that the Xs constrain the Ys from upward mobility, assuming that upward mobility is in both vertical directions (since the administrative bosses and the foremen, that is, the floor bosses, occupy all the management slots). This analysis demonstrates that there is nowhere for Ys to go, and hence there is no rational reason for them to feel that if they work hard they will achieve a higher rank in the company. Nor would a high achievement orientation in this particular situation be particularly realistic or adaptive for a Y. A further investigation shows that IQ scores are related to education, which, in turn, is related to going to good schools, which, in turn, is related to family income.

We can have the exact same data but two very contradictory analyses. It is obvious that one of the two analyses has to be "plain bad." A wrong analysis does not imply bad data, it implies an overreliance on a particular explanatory theory whose **primitive axioms** are left unexamined. All theories are built out of basic elemental belief statements that are taken for granted. These taken-for-granted beliefs are called *primitive axioms*. They are the basis for all theory. In this case, our hypothetical research presumed that intelligence and achievement motivation are traits of individuals, and that differences within a society are based on individual ability.

Threats to Validity

If some Ys and Xs were to trade places (as in the movie *Trading Places*) we are likely to find that Ys begin to act like Xs,

and Xs like Ys. Had the researcher considered this alternative explanation for his or her findings, he or she would not have been so hasty to jump to the conclusion that a person's economic position is do to biopsychological factors alone. All the reasons why your analysis may not be correct are said to be **threats to validity**. Usually the threats to validity lie either in unwarranted generalizations from data or the use of wrong, unexamined primitive axioms in the interpretation of the data. It is important to reflect and to be vigilant with regard to threats to the validity of your analysis, by asking, "Where might I have gone wrong?" "Are there better ways to explain the data?" Does my theory fit the data?" and "Does the data correspond to its empirical counterparts?" No study is free of threats to validity, and the ultimate value of a study depends on a realistic and careful assessment of those threats.

To quickly review the above argument: analysis always depends on theory. A theory is an explanation of something that is observed. The explanation—that is, the theory—is grounded on primitive axioms. Primitive axioms are underlying, tacit, usually unacknowledged truth statements that are accepted as given by the researcher. More simply put, primitive axioms are the belief statements that support and generate bias in a theory.[8] All theories are biased in that they are grounded on primitive axioms. In order to increase confidence in your analysis, you should be your own "devil's advocate" and evaluate whether other theories—that is, other biases—do a better job of explaining your data than your "own" theory. If you have examined these theoretical threats to validity, then you can have increased confidence in your theory.

Research Ethics

All researchers, whether students or professionals, must use such methods and report their findings in such a way as meets the minimum ethical standards of their fields. Researchers must take every precaution to avoid misrepresenting their findings. Field researchers mostly work on the honor system, according

to which falsification of data or modifying the data to fit desired ends is absolutely unacceptable behavior. The results of falsification or knowingly misrepresenting your findings can include forfeiture of professional credentials, loss of professional status, and employment termination. Having said this, it is also easy to do so unwittingly. For instance, if one is studying illness treatment and notices that some villagers, women in particular, go into trance possession, one can easily become fascinated by these women and the curing rituals that involve trance possession, ignoring the 90-plus percent of treatments that are more mundane and less visible. One can then give an erroneous portrayal of illness practices as being almost exclusively comprised of magical rites and "crazy" behavior. I remember having read in an Indian newspaper that the Indian government had become reluctant to grant visas to anthropologists because of the anthropological fascination with caste, which meant that anthropologists had been responsible for perpetuating the false image of Indian social structure as predominantly based on caste. This sort of concern may be unavoidable. One has a right to be interested in caste. But, again, it is useful to recognize the limitations of your study; otherwise you construct unwanted and inaccurate holistic portrayals of a culture, and you end up doing more harm than good.

Researchers are also expected to uphold the notion that participants' rights and interests must be protected. In many institutions, before research is even instigated, approval is to be secured from what is called an **institutional review board** (IRB). The IRB is comprised of professors who evaluate the research proposals written by faculty and anyone who is intending to collect data from humans and later disseminate that information in a public forum (e.g., publications, talks, interviews). The IRB checks to see if a proposal meets the criteria for ethical research. This means that they are looking for three things: First, what are the risks of participating in the research? If they are no greater than those incurred in ordinary life, then the research passes this criterion. Second, they look to see if the participants have been deidentified, meaning that there is no way that someone can associate responses to a participant in the project. And third, they look to see if the participants have been given a proper descrip-

tion of safeguards and full information on the project they are participating in. Any coercion is frowned upon, as when potential participants are made to feel that by opting out they may be endangering themselves in some way.

Rightly or wrongly, until recently much ethnographic research has preceded without undergoing this IRB approval process. The criteria and implementation of the criteria vary across universities; in some places they are very loose, in others overly nitpicky. Nonetheless, it is essential that the principles of ethical research on human subjects be adhered to—and all the more so in anthropological undertakings in which participants might be easily exploited due to language or cultural differences. To this end, the American Anthropological Association has maintained a code of ethics, the last version of which was published in 1996 (*Anthropology Newsletter*, 7–8).

The code provides anthropologists with "guidelines for making ethical choices in the conduct of their anthropological work" (*Anthropology Newsletter*, 7). The code states that research proposals must make clear the purpose and potential impacts of a project, along with the funding source. They must state who will be provided with information gleaned from the project. After research has been conducted, "researchers must intend and expect to disseminate results" (7), and they should make their data and field research materials available in response to all reasonable requests. Accordingly, they also should seek to preserve these materials wherever possible. The code goes on to state that anthropologists are ethically obligated first and foremost to the people they study, and must "do everything in their power to ensure that their research does not harm the safety, dignity or privacy of the people with whom they work [or] conduct research" (7). This means making sure that anonymity is protected when it is requested or promised, and that confidentiality is never breached. It also means making sure that participants are not exploited, and, to this end, informed-consent procedures are advocated in the ethics code. Further, anthropologists should "continually monitor the effects of their work" (8), taking all steps possible to ensure that people's lives are not adversely affected by participation in the research.

However, being in the field is different from considering ethics when you are writing your proposal. One aims for transparency, but the point of being a participant observer is that you are who you are in fields of social interaction in which you are often the most marginal and least competent member. You and others also have agendas that steer, or are primitive axioms of, the interaction. You want people to like and trust you in order that you may get to know them, write about them, gain an academic career, and so on. If you do obtain a career and various benefits from your research, then your informants have given you more than you could ever give them. Most anthropologists are no more moral or ethical than anyone else in the world. So whatever moral principles we purport to uphold in writing are always suspect in practice. Understanding this, I held fast to one basic moral guideline, and that was *"If I do X* [X includes behaviors and what one writes], *will I be able to look my informants in the eye ever again?"* If the answer was no, I just didn't do it.

Notes

1. The difference between etic and emic theory here pertains specifically to ethnographic research and corresponds to Russ Bernard's (2006, 83–84) distinction between idiographic and nomothetic theories.

2. I choose 1986 (or about that time) for three reasons: (1) this was the time when postmodernism began to have a significant impact on the writing of ethnographies; (2) it was the start of a less liberal and generous time in the universities and, perhaps, the world; (3) due to chronic low-level wars and the difficulties in obtaining visas, anthropologists tended to work at home or closer to home.

3. Bernard (2006, 437–48) reviews "unobtrusive observation" which is "nonreactive" because the researcher disguises her real role as researcher and "pretends" to join an institution or organization as an actual member. "Unobtrusive measures" refers to data that was collected not necessarily through deception but "naturally" and "nonreactively" via participant observation.

4. Not all cultural models are PRMGs, but all PRMGs are cultural models that identify a sequence of connected behaviors such as a greeting interaction, getting something to eat, and so forth.

5. Of course, we are talking about rational numbers, and not imaginary or irrational numbers.

6. There is controversy over whether scaled variables are interval or ordinal. (For a discussion on this issue, see the subsection on types of questions in chapter 5.)

7. A quick note on the use of the singular verb with data: data is a mass noun and not a count noun, so we can properly use it as a singular rather than plural noun.

8. A *bias* as used here refers to a predisposition to explain observations in terms of a particular theory. The theory that Indra, the Hindu god of rain, causes rain is different from a scientific theory of rain, but I am biased toward the latter.

II

METHODS

This and the following chapters on data collection and analysis are organized with the aim of helping the reader use the methods appropriately. You will learn

1. why you should choose that particular method;
2. how, where, and with whom to use the method;
3. how to present the data;
4. what the data tells us;
5. the pitfalls of applying the method in the field.

The pitfall section is important, because (as mentioned previously) to use methods in the field is always to adapt to unanticipated pitfalls and other circumstances (some perhaps fortuitous). It is simply not possible for systematic data collection procedures to go without a hitch in the field. If the researcher implies that there were no problems obtaining and analyzing the data as laid out in the research design, then either he or she is lying or not bothering with a discussion of problems, or a miracle happened. A prerequisite for being a good field methodologist is to be a good improviser. It is also important to realize that there is no bad data, only bad analysis, meaning that despite whatever problems have occurred with collecting the data, the data is still rich enough to be mined for something worthwhile, with the only question being what that will be.

3

Freelisting

Why Use Freelisting?

You conduct freelist interviews at the beginning of research in order to familiarize yourself with the items shared by, and considered important by, informants. The freelist is, I believe, the single most powerful and informative systematic data-collection technique available, because it is easy to use; you don't need many informants; and it offers a powerful emic snapshot of the **cultural domain** that you are interested in studying.

This begs the question, "what is a cultural domain?" I have not found a good definition of a cultural domain, probably because they do vary so much in content and structure. A *cultural domain* refers to all things, at the same level of abstraction, that members of a culture (or group) say belong together. A cultural domain is an emic rather than an etic category because it is shared and constructed by the members of a culture (and not by the social scientist or so-called expert).

The problem of "levels of abstraction" will come up in actual freelist tasks. An example of the levels problem is as follows: If you ask people to list all the flying animals they know, they might say "eagle," "robin," and "bird." *Bird* is, of course, at a higher, more inclusive level of abstraction than *robin* and *eagle*. This is not such a problem if the confusion of levels occurs only

a few times in the freelist task (as will be discussed in the pitfall section). The freelist does not exhaust all members of a category, but it is aimed at eliciting most, if not all, the important items that constitute a category. The freelist is emic because if you should select a member of the culture randomly and give him the generated freelist items, that person would say, in effect, "that sounds about right/reasonable/good." Freelists should make sense to natives.

How, Where, and When to Use Freelisting

How to Do Freelisting

Freelist questions are typically formulated in one of the following two fashions: (1) "List all the Xs that you know"; or (2) "What kinds of things are Xs?" The latter question is often associated with eliciting taxonomies; but that is usually not the intent of freelist questions. Though the question is simple and straightforward, you have to be careful how you phrase it, and it is always important to pretest the question. Once you ask a freelist question and start collecting data, it is often too late, and always a waste of time, to start over. Therefore, pretest, pretest, pretest! And make sure that your question uses a vocabulary that is colloquial and that is familiar to your informants; and that you have phrased it in such a way that it's most likely to be interpreted as you intend it to be.

A good example for illustrating this issue is provided by the question, "What holidays are there?" What can go wrong here? Well, some folks might note that this could include holidays from around the world; others, holidays celebrated in their own countries; and yet others, holidays they personally celebrate, or that they get days off for: no official day off, no holiday. All of the above interpretations are reasonable. And this doesn't even take into account ethnic, religious, or family holidays, or personal sorts of holidays such as birthdays and anniversaries. So the question might need to be more specific in order to eliminate unwanted interpretations. It could, for instance, be transformed

into "What kinds of holidays are there in you country?" This might lead people to think of only countrywide or "national" holidays; or, if there are many ethnic groups, informants might mention holidays pertaining to some or all of these groups. You could constrain the possible interpretations of the freelist question even more by adding "that everyone celebrates?" but then you might have no answers, because for the "strictly speaking" crowd, there is probably no holiday that everyone celebrates. If looked at too quickly, the freelist method looks too simple and easy to carry out; if scrutinized too closely, it is an almost impossible task. The proof is somewhere in between. If the pretest results show a structure (i.e., there are many holidays that are repeated by your informants), and one that conforms to what you had intended to get (i.e., if you asked about flying animals and you got flying animals then the responses are in line with what you intended), then, by all means, go to it.

Where and with Whom to Do It

We conducted freelist questionnaires in the streets and parks of Moscow, Lithuania, and New York (among other places). Almost everywhere is fair game. However, you have to keep some things in mind. It is probably better not to recruit too many friends. If you are interested in something like marital conflict, you might want to limit your sample to married people and get a relatively even number of husbands and wives. Common sense is indispensable for doing research. Below are some tips on recruiting informants:

1. Recruit from among friends and friends of friends *when appropriate*. Thus, in Lithuania, I asked my Lithuanian friends (and my assistants asked their friends) to respond to the freelist question, "What is romantic love?" I considered friends and friends of friends appropriate because I could not think of any reason why these people would be particularly different from other kinds of Lithuanians. Romantic love is a cultural concept, and I could expect their answers to be typical of Lithuanians in the 20–40

age group (the age group I was interested in). It should be clear that you don't go recruiting in a monastery or among six-year-olds; that is, you don't recruit from among populations that are statistically deviant or that your common sense tells you are inappropriate.

Friends and friends of friends served as an important starting point for my research. Werner and Schoepfle (1989, 192) note that opportunistic sampling "can be justified theoretically . . . if ethnographers take care that consultants are at least two social links apart." They argue that merely among friends, you can elicit approximately "60% of cultural knowledge" on a particular cultural domain; extending beyond to friends of friends increases the percentage to one approaching 100% (of a common cultural domain). But always try and sample from a variety of people.

2. Choose samples that are **contrast sets**. A *contrast set* consists of any two terms that implicate each other and that are antonyms, or are in symbolic opposition with one another. What this means is that if your friends are students between eighteen and twenty-five years of age, then choose nonstudents from that age group as well. If you are sampling children from a private school, also try and get a sample from a public school. Find the appropriate contrast set to balance your sample. Remember, the sample doesn't have to be 50-50; as long as you have a reasonable number from each group, you're okay. The underlying assumption of sampling for culture is that culture is shared; no individual is independent, because all members of that culture are likely to share the same information.
3. Go to places where people are not in a rush, such as bus and train stations, parks, and Laundromats.
4. Always have a gift ready for them. Give them pens to write in the freelist answers, and let them keep the pens. Let them know beforehand. If you give them money, always give it after they have finished the task. Cash incentives worked much better in the United States than in Lithuania or Russia. I don't know why this is so.

5. [I hesitate to mention this one because it will seem "politically incorrect" and downright sexist. Nevertheless, it is true.] If you have college-age women as research assistants you will get a lot more people who are willing to answer your questions. I went out alone at first; then later with a male student; and still later with two female students and the same male student. The difference in our level of success in recruiting informants was remarkable. The female assistants were nonthreatening to strangers, and strangers construed the situation as one in which they were giving help to young women. If you have male assistants, make sure they look neat, nonthreatening and professional.
6. When you go out recruiting, always bring and prominently display a clipboard and some kind of badge stating your name and position.

Presentation of the Data

We (my trusty assistants and I) worked with a number of questions on romantic love, but I will only present the data for the question, "Can you please tell us what you associate with romantic love?" Most of the data were collected by my two assistants, Janina and Linas (both students at Vilnius University). At first I went out with both of them to collect data; after spending a couple of days with each, I was satisfied that they knew how to collect the data and ask the appropriate questions.

I will not be concerned with the problem of translation here because it is not important to the actual data collection or analysis. Some of the Lithuanian data is presented at the beginning with its English translation. We each had a clipboard, and when we approached potential informants we would quickly explain the nature of the project (to compare ideas of romantic love between Lithuanians, Russians, and Americans) and then ask them if they would like to participate. When they agreed, we would give them basic instructions, and that was it. We eventually collected eighty freelists—sixty in Vilnius, and twenty in a small

town in the Zemaitija district of Lithuania. We did this to check if there were differences between urban and rural answers. There were none, and so we aggregated the data as one representing Lithuanian freelist responses. Below, we will work from the first recording of the data to its final rendition as prepared for publication.

Inputting the Data

After we had collected the data, we began to input it. One problem arose immediately (other problems appeared slowly, perniciously, over time), and that was the variety of ways that people responded to the questions: some provided one-word answers; others wrote long essays; and most were somewhere in between.

Below is a sample of the data as transcribed from the hard copy into a text-document file by an assistant (we used Microsoft Word). The Lithuanian is given with the English translation beside it. (This is the way I asked my assistants to record the data.) The first line provides basic social data: "1-m," for example, refers to the first male; the number in the middle refers to age; and the *3*, for example, indicates "rural" (*1* is "urban," and *2* is "town"). Thus, the first line consists of codes for important social and numerical data. These codes helped us keep track of the number of people we interviewed, as we balanced females and males and also tried to get a sufficient distribution across age and place of residence. Be careful that you put some effort into collecting the social data that is important for your project. If you think religion or age or political ideology is important to your study, then ask for that data. But don't ask for too much. The social data can be used as independent variables later in your research; but even if they are not, they are important for comparing differences (or lack of differences) among groups.

List 1. Freelist Raw Data

"Paaiškinkite kas yra romantiška meilė?" "Can you explain what romantic love is?"

1. 1-m-unk-3 [*unk* = "unknown"]
   sincere (*nuoširdi*)

not binding feeling (*neįpareigojanti*)
bliss (*palaima*)
tranquility (*ramybė*)
very pleasant (*labai malonu*)
very good (*labai gerai*);
2. 1-f-26-3
exaggeratedly emotional (*perdėtai jausmingai*)
a turning to details (*linkimas į detales*)
creation of backgrounds (*kuria bendracimo fonus*);
3. 2-f-30-2
to feel high (*pakylėjimas*)
to flutter at the clouds (*skraidymas padebesiais*)
euphoria (*euphoria*)
"rose colors" (*rožinės spalvos*)
unexpected goodness (*netikėtas gerumas*)
sadness (*liūdesys*)
longing for (*ilgėjimasis*)
insensibility (*nepastabumas*)
to annoy (*erzinti*)
disappoint (*nuviltį*);
4. 3-f-31-1
a cup of coffee (*puodelis kavos*)
daisy petals (*ramunės žiedas*)
a decoration of life (*gyvenimo pagražinimas*)
a fine cover for a candy (*graužus popierėlis saldainiui*)
a framed picture (*įrėmintas paveikslas*);
5. 2-m-22-3
not a full bath of champagne (*ne šampano vonia [pilna]*)
not a lot of white roses (*ne daug baltų rožių*)
not materialistic things (*myli ne už kažką*);
6. 4-f-24-1
romantic love lasts for a limited period of time; falling in love period (*įsimylėjimo periodas, kuris trunka ribotą laiką*)
respectable and mature level (*aukštesnis ir brandesnis lygmuo*)
artistic soul, cultured and spiritual people (*meniškos sielos, dvasingi ir kultūringi žmonės*)
relief from the daily routine, mode of life and everyday life (*atitrūkti nuo rutinos, buities, kasdienybės*).

Reducing the Data

On quick inspection, one can see that the raw data is very, very rich, much richer than the data that I presented for publication (see list 2). The data presented in publications often represent

cleaned-up versions of the raw, chaotic, but rich data that one first elicits from informants. We did not want to lose this richness, but we could also not include it verbatim in the freelist analysis; it would have been too much. A big challenge was that of reducing these long descriptions while at the same time not losing the richness of the responses.

After the initial raw data had been inputted, my assistants and I met to recode them, distilling them further. One of the things we did was put all long answers (phrases, sentences, and longer) into a separate file that we used later as "quotes," to illustrate the meanings informants affixed to our one- to two-word codes. To reduce these long passages we met frequently, writing them on the board, discussing them, and seeing which ones went together. After we were familiar with these "long answers," we (my two assistants and I) reduced statements to one or two key terms, thereby reducing the "long answers" to their corresponding minimal "meaning units." We did this by ourselves, and then we discussed which ones we were going to use. If two people voted for an interpretation, then we kept it. This decision-making method worked well, and the assistants were empowered to overrule me; all this led to their becoming more personally committed and involved in the research, while at the same time increasing the validity of the results by making sure the final key terms had gone through an *interrater reliability* screening. That is, we settled on an interrater reliability index of a minimum of 2/3; but overall it was probably around 80 percent, as all three of us frequently agreed on the key term to use for coding a phrase or statement.

We quickly came up with some basic algorithms. So terms like "very pleasant" were reduced to "pleasant," and "joyful" and "joy" were reduced to "joy"; but "happy" and "joy" were kept separate. Slightly more difficult were sentences such as "Romantic love lasts for a limited period of time; it is the falling in love stage period." This was reduced to "initial stage of love," and the limited period of time was reduced to "temporary." Since we had the long phrases in a separate file, we could return to the term "temporary" and note that it was often associated with the "initial stage of love," and by implication might lead to some

more substantial, enduring sort of love. Though we haven't done so yet, we have considered setting up networks of phrases that are associated with each other, thus creating a semantic network.

Terms like "a cup of coffee" and "a fine cover for a candy" were idiosyncratic terms not mentioned more than once or twice, and thus they were left off the final freelist. However, these statements were (are) available to us to use for even more refined sorts of analysis. There is a point at which you have to stop. We did this when we looked at the frequency distribution of our new, reduced list. *Methodology is a means for analysis not an end in itself*. Below is a copy of such a cleaned-up, final file. (We include some of the Lithuanian terms for those interested.)

List 2. Sample of Final Freelist File for Lithuanian Romantic Love Data

1. 1-m-unk-3
   honest
   no binding feeling
   bliss
   tranquil
   pleasant
   good;
2. 1-f-26-3
   emotional upsurge
   details—linkimas į detales
   background;
3. 2-f-30-2
   feel high—pakylėjimas
   flutter
   euphoria
   rose color
   unexpected goodness
   sad
   longing
   insensibility
   annoying
   disappoint;
4. 3-f-31-1
   cup of coffee
   daisy
   decoration
   fine candy wrapper
   framed picture;

5. 2-m-22-3
   not a full bath of champagne
   not many white roses
   not material things;
6. 4-f-24-1
   temporary
   respect
   mature
   artistic soul
   cultured
   spiritual
   relief from daily routine.

There are two things to consider about the above list. First, note that phrases with "not," such as "not a full bath of champagne" and "not material things," are confusing, because they imply that the informant thinks "a full bath of champagne" and "material things" are the culturally shared images of romantic love. We decided not to lose sleep over this and just code them as "not . . . ," but to have them in our file of "long answers" in case we needed them. Second, and much more importantly, note that we had more idiosyncratic terms than shared terms in our final output. This would matter if there were not a strong structure of shared terms in the final output. But there was a strong structure, with thirty-five terms mentioned four or more times. This amounts to enough terms to cover the culturally shared ways of thinking about romantic love. We decided to use only those terms cited four or more times, and to ignore all singletons. However, one can, given time and energy, go over those singletons and see if some fit into the more frequently mentioned terms, or if some compilation of singletons signals a neglected but culturally salient semantic dimension of romantic love. To do this you would need to recruit two independent and competent coders. Never do this yourself!

The final output is presented in table 4. This output was produced by ANTHROPAC. Let me provide a quick rundown of what the headings in the table signify: "term" is obvious; "frequency" refers to the number of times the term was mentioned by our informants; "percent" refers to the percentage of infor-

mants who used this term. If a term was mentioned 40 times and we had 80 informants, then 50 percent of our informants mentioned that term. Finally, "avg. rank" refers to the average place of a term in the lists of all informants who mentioned the term. A *frequency distribution* of terms is a measure of the "sharedness" of terms among a sample (and, by extension, among the population). Since culture is supposed to be shared, this gives an approximation of the spread of the domain terms among the members of a culture.

We need to spend a moment unpacking average rank and its relation to frequency. Average rank reflects a different theory of cognitive salience than does frequency. **Cognitive saliency** refers to how important and useful some term is; it is assumed that the more important terms are recalled more quickly and more easily than less important terms. Average rank, then, is the average position of a term in all of the informants' freelists; the higher a term's rank, the lower the numerical value of its average rank (i.e., 1.0 is numerically lower than 2.0 and, therefore, indicates a higher rank), and the greater the cognitive saliency of the term. For example, you probably use the color term *red* more frequently than you do the color term *maroon*; and, therefore, if you are asked to list color terms, you are more likely to mention *red* before you mention *maroon*. It is as simple as that. Usually there is a correlation between frequency and rank (*red* is mentioned more frequently than *maroon*), but not always. Frequency and average rank are different measures for different uses.

We are now in a position to read the final output, printed in table 4.

The list continued with many, many more terms. The final list in table 4 includes about 50 percent of all cites; the remaining terms had frequencies of less than 4, and mostly frequencies of 1. Nevertheless, the frequency list in table 4 has a good frequency and rank structure for freelists. There is a definite number-one-frequency term (BEING TOGETHER), and there is a nice gradient of terms that are shared. The freelist gives us some insight into the key things that Lithuanians associate with romantic love.

Table 4. Lithuanian freelist terms (sorted by frequency)

Term	*Frequency*	*Percent*	*Avg. Rank*
BEING TOGETHER	40	50.00	4.850
JOY	16	20.00	3.813
WALK	14	17.50	3.500
EMOTIONAL UPSURGE	14	17.50	3.786
HAPPY	13	16.25	5.077
KISS	12	15.00	4.083
DO THINGS TOGETHER	9	11.25	4.889
TEMPORARY	9	11.25	5.111
SEX	9	11.25	3.444
ATTENTION	8	10.00	4.250
LOVE TALK	8	10.00	5.375
SURPRISE	8	10.00	3.400
PASSION	7	8.75	3.286
CINEMA	7	8.75	2.857
TRAVEL	7	8.75	4.286
TENDER	7	8.75	3.857
ATTACHMENT	7	8.75	2.714
HOLDING HANDS	7	8.75	3.000
MUTUAL	6	7.50	4.000
TRUST	6	7.50	1.500
DREAM	6	7.50	7.333
ADMIRE	6	7.50	3.500
LITTLE PRESENTS	6	7.50	6.167
HONEST	5	6.25	5.600
NOT PRAGMATIC	5	6.25	5.800
CANDLELIGHT DINNER	5	6.25	2.800
INITIAL STAGE OF LOVE	5	6.25	2.800
CARE	4	5.00	4.500
PHYSICAL UPSURGE	4	5.00	3.750
STRONG	4	5.00	3.000
LONGING	4	5.00	2.500
SELF CONFIDENCE	4	5.00	6.750
ONE	4	5.00	8.750
CAREFREE	4	5.00	7.250
DOUBT	4	5.00	10.750
TOTAL	284		

What the Data Tells Us

I will present a brief discussion of the data in table 4. Note in particular that the strategy for analyzing uses three tactics: (1) paying attention to the frequencies and focusing on the higher frequencies; (2) considering which items go together semantically, particularly in terms of contrast sets (e.g., feeling good/feeling bad; temporary/enduring); and (3) using the small essays, sentences, and phrases informants have written to strengthen and give validity to your analysis. In this context (as opposed to some other contexts), quotations are fine to use because they reflect how informants thought about the freelist terms, and they give "body" to those terms. The quotations provide emic reflections on frequently cited terms. As my analysis of the freelist progressed, the emic-etic boundary was blurred, with native voices being used to build my own analysis and leading me to some surprising results (surprising in that I had not anticipated them prior to analyzing the results).

BEING TOGETHER combines terms that refer to a state of being or wanting to be together; included were statements such as "wanting to be together," "spent time together," and the like. DO THINGS TOGETHER was considered a second concept because it does not necessarily imply seeking a "state of togetherness." ONE was also kept separate from "together," because it is a strong version of the Platonic concept of unity. ATTACHMENT and LONGING are also terms indicative of a "striving after unity." These five terms—BEING TOGETHER, DO THINGS TOGETHER, ONE, ATTACHMENT, and LONGING—cumulatively constitute 25 percent of the terms and indicate that unity, or a striving for unity, is probably the dominant theme of any Lithuanian cultural model of romantic love.

JOY, EMOTIONAL UPSURGE (*emocinis-pakilimas*), HAPPY, and CAREFREE all speak to a general sense of feeling "good" derived from being in love.

ATTENTION, LOVE TALK, TRUST, HONEST, and CARE refer to relation-maintenance and enhancing activities. This idea was presented by one thirty-four-year-old female informant from the country, who wrote, "If it [romantic love] happens it

means that partners pay a 'big attention' to each other and that they talk to each other honestly, lovingly and trust each other very much, in this way they become even more open to each other." Honesty, attention, and love talk lead to trust, and all three are perceived as means of opening up to each other and, in that sense, knowing the other as one knows oneself. Thus, the combination of these terms can be seen as related to a striving for unity, since this unity is achieved through the gaining of mutual psychological transparency, which itself is gained through the practice of honesty, care, attention, and love talk.

That feelings of love are MUTUAL (*abipuses*) was deemed a necessary requirement of a lasting romantic love relationship by 6 informants. One twenty-three-year-old Vilnius man wrote that romantic love "must be mutual if it is to last. The couple should live . . . one life and plan their future as if they are going to spend their whole life together." For these informants, MUTUAL was an important bridge-concept in that it directly connected the concept of unity with the dynamics of a relationship.

MUTUAL was also used as a means of talking about a relationship becoming stronger and overcoming obstacles. For instance, a twenty-year-old man from Vilnius wrote, "When people feel romantic love for each other they become closer. Through mutual expression of feelings, the couple feels that they can overcome any barrier that separates them . . . Romantic feelings have to be mutual and need to be confirmed by both parties. Once mutual love is declared, there are no more doubts and no more uncertainty." In that same vein, a twenty-three-year-old Vilnius woman said that even though the couple may have to "hide their relationship from their parents . . . they don't care. They will give and take from each other in equal measure." She continued: "Lovers become very honest with each other; they always try to strengthen their relationship by meeting each other's mutual expectations, being supportive and positive and listening." The responses of this woman and the aforementioned twenty-three-year-old man provide evidence for Fisher and colleagues' (2002) criterion that "adverse times can intensify the feeling of connectedness." The key to such effort is that it is mutual and honest. "Meeting each other's . . . expectations" and

"being supportive and positive" also refer to the love criteria of "attention to positive qualities," "altruism," and "emotional union." Though direct expressions of "monogamy" were infrequently expressed in the freelist terms, it is clearly a default assumption in the above statements and in the concepts related to "being together."

Lithuanians recognized a physical sexual component to romantic love: KISS, SEX, PASSION, HOLDING HANDS, and PHYSICAL UPSURGE are terms that either refer to or imply sexual contact between the couple. In another freelist question—"What activities do you associate with romantic love?"—SEX (which included "making love" and "intercourse") was the first choice of activities by an overwhelming margin; it was mentioned by 66 percent of Lithuanian informants. In the freelist question analyzed here—"Can you please tell us what you associate with romantic love?"—SEX was mentioned by only 9 of the 80 informants (11 percent). Thus, SEX was a commonly cited activity associated with romantic love, but it was not among the most significant aspects of romantic love. This finding provides strong supporting evidence for love criterion 5—that "emotional union" takes precedence over "sexual desire."

The most common activities associated with romantic love were WALK, SURPRISE, CINEMA, TRAVEL, HOLDING HANDS, LITTLE PRESENTS, and CANDLELIGHT DINNER. SURPRISE and LITTLE PRESENTS might reasonably be combined and aggregated into one category: GIFT. Informant discussions on gift giving and hand holding centered on giving attention (*demesys*) to their partners, and on the idea that gifts symbolized that the two were a couple, or what I call a *love dyad*. A thirty-year-old woman wrote, "Unexpected presents, frequent calls, memorable dates in unusual places, going to interesting places, and simple presents are ways to express your feelings and to give special attention to your second half [*antroji puse*]." Gift giving and males offering food to females are courtship behaviors that have been observed in other species, including fruit flies (Fisher 1992, 34–35).

For Lithuanians, WALK was the most common activity, and it was usually mentioned in conjunction with a particular

context, such as a walking under moonlight, by the seashore, in the forest, on a deserted street, and so forth. In discussing the importance of walking with Lithuanians, the consensus was that walking is a romantic way to get to places, and there are many parks and interesting places in Vilnius where couples can walk. Walking is seen as an intimate activity in itself. One woman said, "When you walk, time goes slowly and you feel like you are doing something intimate; sitting is too intense especially when you are getting to know one another, but walking is both a distraction, a means to dissipate nervous energy, and a way to be together."

The terms TEMPORARY, DREAM, NOT PRAGMATIC, INITIAL STAGE OF LOVE, and DOUBT refer to the idea that romantic love is not enduring, and is at best is a temporary phase that may lead to a more "mature" love. This more skeptical approach to romantic love represents, I believe, an alternative way of framing one's understanding of romantic love. This idea of Lithuanians possessing two contrary models of romantic love and moving between them is somewhat similar to Swidler's (2001) assertion that Americans hold two cultural models of romantic love—"real love" and the "myth of romantic love"—simultaneously. The "real love" narratives that Swidler describes are, as she explains, almost antiromantic love, muting strong affectionate feelings and casting the relationship in terms of the "mundane" and "ordinary" cycle of day-to-day activities. For Swidler, romantic love is considered a prelude to marriage. The myth of love is one that motivates the couple to think of each other in mythic terms as each other's "one and only." She writes: "When thinking about the choice of whether to marry or stay married people see love in mythic terms. Love is the choice of one right person whom one will or could marry. Therefore love is all-or-nothing, certain, exclusive, heroic, and enduring . . . The institutional demands of marriage continually reproduce the outlines of the mythic love story" (129).

But Lithuanian informants seemed to think of love as much more of a delusional rather than a mythic state. For instance, one twenty-two-year-old rural woman who held this view wrote (with a twist of irony), "Romantic love is when both sides love

each other, fulfill each other's desires, listen to romantic music, and go together for a walk. In a word—it's the love that one finds in TV soap operas. Romantic love can only exist between dreaming people."

In that same vein, though less wryly, a twenty-four-year-old man wrote telegraphically that, "Romantic love equals exaggerated feelings: exaggerated perceptions of the other; an exaggerated estimation of closeness, physical attraction, etc."

The above discussion suggests that the American model of romantic live has a wider range of functions than does the Lithuanian model because it incorporates "real love" into it, so that romantic love can be conjoined to marriage and other life choices. I believe that this is the reason why American cultural models of romantic love appear less romantic than Lithuanian models. The gap between models of romance and marriage is greater for Lithuanians than Americans in the sense that marriage is less likely to follow on the heels of romantic love for Lithuanians than for Americans. As a result, in the context of romantic love, Lithuanians can permit unreality and fantasy to bloom relatively unburdened by the constraints of reality; whereas the American model or "myth" of romantic love can be said to have the quality of reality and enduringness injected into it.

The above analysis led to a resolution of another apparent cultural difference that troubled me. In comparing Lithuanian and American freelist responses, I found that American informants gave short and unromantic answers, while the Lithuanian informants often wrote long explanations and provided very poetic responses. Thus, one of the most poetic American responses to the question about what one associates with romantic love was "surreal feeling"; more commonly, the response might be "divine union," "warm fuzzy feeling," or "put partner first." In contrast, both Lithuanian women and men (who, according to my informants, have a reputation for being decidedly unromantic) would provide fine-grained details of what they meant, supplying phrases such as "wet stars" (*šlapios žvaigždės*), "wading in the marshes during a warm rain" (*braidymas po pelkes lyjant šiltam lietui*), "a flower's secret" (*gėlės paslaptis*), "the shadow of the moon's path on a lake as it moves to eternity" (*mėnulio*

tako į amžinybę šešėlis virš ežero), "the tranquility of a cigarette" (*cigaretės svaigulys*), "lyrical deviations" (*lyriniai nukrypimai*), "a photo of your lover instead of a pornographic picture" (*mylimojo nuotrauka vietoje pornografijos*), "torturing passion" (*kankinanti aistra*), or "the opposite of a mechanical life."

The above analysis of romantic love used only freelists (from Lithuania and also from the United States) and the commentaries of the informants who filled out the freelists. You can see what a powerful tool freelists can be!

Pitfalls of Freelists

During and after our collection of the above data, I realized that there was a problem. When I thought "romantic love," I thought of it as a big, important concept, one of those grand themes of life. It had been proven to be a cultural universal (Jankowiak and Fisher 1992); and the Lithuanian version of it seemed to be an exact translation of the English: *romantiške meilę* = "romantic love." There was only one problem: romantic love was seen as frivolous in Lithuania, but as a "prelude to marriage" in the United States. Assuming the terms *romantiške meilę* and "romantic love" to carve up the same cultural domain in the respective cultures was a little like asking two groups of people to tell me what they associated with the term "crazy," when I asked one group to take it literally and the other figuratively. This is a big pitfall only if you are going to use freelists questions crossculturally. Even so, after one recognizes the difference, which emerges from the data, then that itself is an interesting kind of analysis. Remember, there is no bad data, only bad analysis.

If you get a structure in the freelist, as we did, then chances are you are okay. But if you don't get a structure, then you have problems. By this I mean that the frequency distribution of a freelist should look like half a bell curve.

Figure 1 depicts an ideal structure where there are a few terms that are frequently cited and more terms with lower frequencies; thus, most terms will only have a frequency of 1. This does not mean that there are always idiosyncratic terms, but it

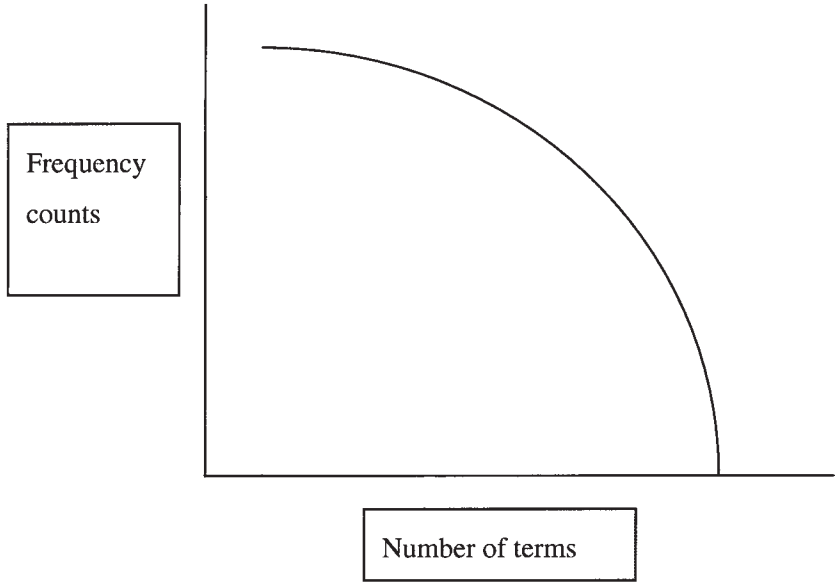


Figure 1. Optimal structure of frequency distribution for a freelist

does mean that people used different ways to represent a particular concept. For instance the "one cup of coffee" term is a nice metaphor, I think, for love as very temporary.

A problem will occur in collating and grouping all these terms. In order to do this you can never, repeat, you can *never* just count on yourself. You must use assistants, and they must comb through the freelist terms independently to decide which terms can be grouped together and what the algorithm for that grouping is; by *algorithm* I mean the "explicit procedure" for grouping. The explicit procedure may simply be that the majority of coders group such terms as "a piece of candy" and "one more cup of coffee" together. In any case, some algorithm has to be explicated, and used fearlessly and systematically.

Another potential strategy is, for lack of time, to ignore the many terms that are "singletons" (mentioned only once), and perhaps even those mentioned only twice. Once you have a list of twenty or so terms that are mentioned with some frequency, you have enough terms to analyze. The extra work it would take to figure out what all the doubles and singletons meant and

where how to group them might not be worth the effort; this is a decision that you will have to make. Once you make it, stick with it. If you decide to group the many terms mentioned once, you cannot do it by yourself (repeat again!), and you must do it with diligence, not hurriedly.

It is, however, important to remember what your goal is. Your goal is not to count linguistic terms as linguistic terms per se, but to get at cultural meanings. The idiosyncratic terms (or phrases) are idiosyncratic as linguistic terms, but semantically they may highlight, elaborate on, or be metaphors for your frequently cited terms. If they do seem to function as elaborations on frequently cited themes, then use them; for instance, it is a safe bet that "a cup of coffee" can be used as a metaphor for "temporary."

A final pitfall is that a freelist with the commentaries that frequently go with them can lead to conclusions that are not valid. A freelist is comprised of terms that are at "the top of people's heads" or on the "tip of their tongues." In contexts that rely on deeper reflection, such as interviews, such terms may be contested, negotiated, or not considered seriously. You might note that someone has said that romantic love is an "exaggeration" and "one cup of coffee," but in an interview this person tells you how wildly in love she is with some guy. When you mention her previous remarks, she may backtrack, or say, "yes, in general, but not in this case." Sometimes freelist terms reflect irony rather than reality.

Freelists are a beginning. Much analysis can be made, but all of those analyses are conjectural, plausible, but not in any way "solid." To increase confidence in your inferences and analyses, you must rely on other methods. Next we turn to pile sorts.

4

Pile Sorting

Pile sorts typically follow freelists. They can be used to give structure to freelist items, and they are particularly useful for discovering prototypes and the semantic extensions from prototypes (Kronenfeld 1997). A **prototype** is a mental image or model constituted of the most salient features of a typical member of a category. Prototypes are cognitive models used to represent a category, and the goodness of fit of members of that category are usually identified in terms of their relative semantic distance from that prototype. Goodness of fit to the prototype is measured by the semantic distance, or extension, of a thing from its prototype along the various criterial dimensions. Let's turn this into a concrete image, remembering Einstein's injunction.

For instance, a pigeon is a more prototypical kind of bird than a penguin or ostrich; or, to give a different kind of example, "happy" is a more prototypical description of a good emotional feeling than "ebullient" or "joyous"; and a basketball is a more prototypical kind of ball than a football; and so on. Often our understanding of anything, including processes or statuses, is anchored in prototypes of actions, feelings, or things in the world. Advertising works on this powerful idea by providing us "as if" prototypes of happy, beautiful, successful people. Prototypes

are powerful semantic anchors, packed with cultural meaning. They are the cornerstone, according to Kronenfeld (1997), of how we make meaning.[1]

Semantic extensions refer to the way other terms are understood relative to their proximity to their prototype. If, for example, a "beautiful" woman is one who is thin, with an unblemished complexion and blond hair, you may evaluate yourself with this prototype (or model) in mind and seek to reshape your appearance to fit the prototype. If you feel you have an unblemished complexion and are already thin, then you will only need to "work" on your hair. Each of the three features of the prototype are in themselves constituted of a prototype (thin versus fat; perfect complexion versus rough complexion; and blond versus black hair). Similarly, if a "handsome" male is prototypically thought to be muscular with "six-pack abs," smooth complexion, height around six feet, and symmetrical facial features, then prototype theory would predict that the closer males fit this prototype, the more satisfied they will be with their self-images.

Card sorts help you find out what prototypes are important and what terms comprise the semantic extensions from a prototype. Prototypes serve as conceptual nodes of meaning, and variations from the prototype lie along the dimensions that radiate from the prototype. For instance, for *bird* the prototype is the most common bird (say a pigeon), and the dimensions that radiate out are shape, composition, and function. Thus, *feather* is a composition dimension, and any animal that is like a bird but doesn't have feathers may be ambiguous—like a penguin. Or any bird whose shape varies dramatically from that of a pigeon—like an ostrich—may also be ambiguous. Because ostriches have feathers and beaks they fall into the classification of "bird." Similarly, if a function of birds is to fly, be wild, and perch on high wires, then a chicken may not be seen as a "bird" along this dimension, since I've never seen one perched on a telephone wire. Card sorting is useful for inferring prototypes and their extensional dimensions; in short, pile sorts give semantic structure to the freelist terms.

How, When, and Where to Use Pile Sorting

How to Do It (Preparation)

Pile sorting is one of many different techniques for grouping terms together. There are many different sorts of grouping tasks (e.g., paired comparison, triad testing), but the most popular sorting task is called *pile sorting* because it has more flexibility and compares more terms than you can with the other two methods mentioned.

To start, you need to have a list of terms that you want to compare, usually numbering between twenty and forty. The terms are typically taken from the freelist. Each term (or phrase) is placed on an index card, or some other piece of paper, with a number on the back. The relation between number and term is arbitrary but, once established, should not ever be changed! This is because when you ask people to sort the cards they will read their sorts back, to you citing the numbers on the back; so each number stands for a term.

It is important to add that you can conduct pile sorts with objects and pictures as well as terms. For instance, I have done pile sorting with pictures of males from a high-school yearbook and also with different kinds of balls. Also, you do not need to take all the popular items on a freelist. If there are some interesting items that had low frequency that express what you think is an important concept, then, by all means, include the "interesting" items in your pile sort.

Below is the set of terms we used for "What is romantic love?" (*Kas yra romantishke meile*?). You will notice that many of the terms were not frequently cited in the freelist but referred to concepts (such as "material things are not important") that we thought covered aspects of the meaning of romantic love not well referenced by the frequently cited freelist terms. You will also note that we did not use just the final key terms, but we often used phrases that expanded on those key terms, like "tenderness to the partner." This ensured there was no ambiguity in the interpretation of the term, regarding who was the object of tenderness.

List 3. Lithuanian List of Pile Sort Terms for "What Is Romantic Love?"

1. material things are not important (*materialus dalykai nera svarbus*)
2. sadness (*liudesys*)
3. being together (*buvimas kartu*)
4. sex is not important (*seksas nesvarbu*)
5. kindness (*gerumas*)
6. initial stage of love (*pirmine rimtos meilesa*)
7. happiness (*laime*)
8. upsurge (*pakylejimas*)
9. idealization of the world (*pasaulio idealizavimas*)
10. self-sacrifice (*pasiaukojimas*)
11. giddiness/dizziness (*svaigulys*)
12. tenderness to the partner (*shvelnumas partneriui*)
13. disappointment (*nusivylimas*)
14. stupid things (*kvailystes*)
15. surprises (*siurprizai*)
16. mutual respect (*abipuse pagarba*)
17. friendship (*draugyste*)
18. not ordinary (*nekasdienishkumas*)
19. lasts for a limited period of time (*trunka ribotaa laiko tarpaa*)
20. care (*rupestis*)
21. butterflies in stomach [this last one is only in Linas's cards]

Note the problem on item 21. This is a good (early) example of a pitfall in doing pile sorts: one assistant had the term "butterflies in the stomach," and the other had not put it on her list, even though we had all agreed to include it, and we had used it in our pilot test of these terms! We also had some problems because, initially, the two assistants had different numbers for a few items. When there are two or more persons conducting pile sort interviews, it is important to write the terms clearly on an index card and compare index cards before they go out and collect data! You should have between twenty and forty terms, as noted above. You can go above or below those numbers; so these are constraining but not absolute parameters.

You must decide on the procedure you are going to use in the field: **successive constrained** or **single free pile sorts**. Constrained means that you tell them how many piles you want them to sort the cards into. Usually it is two piles. If it is successive, then they will continue dividing each pile into two more piles until only two cards are left per pile. A single free pile sort is when they sort the cards into as many piles as they want, and

they do this just once. Remember, card sorting is a very flexible technique, and you can ask people to sort piles into three categories. For example, Gun Roos (1998) asked children to sort foods into "children [*sic*] foods," "adult foods," and "food for both adults and children."

Once we chose our terms for the pile sorts, I decided that we should do successive constrained pile sorting to eliminate the "lumper/splitter" problem. This problem refers to the tendency of some people to lump things together into large piles and others to carefully dissect and split them into many piles. This is a psychological variable that we didn't want to have influence the sorting. A word of warning: successive constrained takes a long time; you need very sympathetic volunteers who have time and patience and don't wear down. I think it's often not worth it, and I would probably not do it again. But it is the most reliable method. It just takes a long time, and it does tax the patience and goodwill of your assistants and informants, particularly if the latter are strangers and don't have a lot of time. You should always pay, or provide some compensation, for pile sorts. Even a single free pile sort, particularly after recording the divisions and asking a few questions about you informants' reasons for dividing the cards, takes a minimum of half an hour. If it is done faster than that, then it is being done too hastily! A successive constrained pile sort can easily take one and a half hours.

You also need a quiet place where informants can spread the index cards out and sort them into piles. It's not good to do this somewhere where your informant can get easily distracted. Always have them explain their decisions for putting items in a pile. The verbal data provides invaluable information on the underlying reasons for clustering items together.

How to Do It (in the Field)

Once you have recruited an informant (friend or stranger), you should explain what you are going to do and why you are going to do it, and give an estimate of how long it will take. I do not think most of my assistants did this. It takes a lot of time and effort and just seemed unnecessary to them once they

had collared someone. Maybe they were right, and realistically you can't do all those nice things. But it should be an ideal to strive for.

After you have recruited a volunteer, it is imperative that you first shuffle the cards, to put them in random order. This is important because it ensures that the sequence of cards will not form a natural division based on previous sorts, and because it shows the informant that there is no "secret" reason for the order of the cards as they are presented to him or her. Emphasize that the terms were obtained from an earlier part of the study. Then have the informants look at all the cards briefly to gain some familiarity with them. Show them that you have extra index cards, so that if they want to put a term into two piles rather than just one pile, they can. Emphasize that there is no "right or wrong way" to sort cards.

You then give the informants your card sorting instructions. If your list is a list of foods, you might ask them to sort the items into healthy versus unhealthy foods; into the main food groups; into typical breakfast, lunch, and dinner meals; into foods that are "male," "female," or both; and so on. Most frequently, people are asked to sort the terms (or items) into piles on the basis of similarity, or however they like. The "however they like" is frequently used because it gives a more emic "feel" to the exercise. Frankly, I think it is usually a mistake because you have to worry about people choosing different criteria. In terms of food, some people might choose shape or color as their selection criteria. This would not be good. Letting people choose their own criteria is reasonable when you can be fairly sure they will use the same criteria. Emotion terms probably don't need any specific criteria for sorting unless you are specifically interested in finding out how they are sorted along preconceived dimensions such as active-passive, good-bad, and so forth.

Let me give a brief example of what can happen if you say "use any criteria you like." If we take just the four terms "lazy," "slow," "fast," and "energetic" and ask people to divide these cards into two piles "anyway they like," then chances are that "fast" and "energetic" will be sorted together, as will "lazy" and "slow." But it may also be reasonable to put "slow" and

"fast" together and "lazy" and "energetic" together, because then you have pairs of antonyms. All of your informants are likely to agree with the sorting if you give them either criterion (antonyms or similarity); but without a criterion, you may get conflicting sorts. Nevertheless, most of the time people will instruct informants to sort the cards "anyway they like" or "on the basis of similarity."

After each sort, have the informant read the numbers on the backs of the cards so that you can record these numbers. When the informant has read all the numbers of a sort to you, you can ask him or her to label each pile (though you don't have to). If the informant can't label the piles, then ask him or her to select the most "typical" card for each pile. I always ask them to label each pile or, if they can't do that, to take the most typical term in each pile. This allows me to "follow" the prototype as it is being deconstructed and follow the family of terms associated with it. You may also ask them to explain the reason for putting a group of terms into one pile. This is particularly relevant if you are trying to understand the underlying reasoning behind the sorts, and this is very useful information for interpreting the *aggregated* (summed) results of the pile sort!

Below is an example of how a constrained successive pile sort was recorded in the field. The roman numerals, capital letters, and numbers stand for the sequence of divisions. So that IA2a stands for the fourth sorting in the first division.

List 4. Example of Recording Pile-Sort Data

f.28 student, not married
[janina only 20 terms]
I 17,10,15,1,20,16,5,12,3,9,18,7,8—real pure love. Mutual, making one happy, strong, and self-confident. Spiritual calmness.
II 6,4,19,2,11,14,13—painful love, not mutual. Bad partner, not worth you
[she says 6, 4, 19 are unclear]
IA 8,7,18,9,15,12,3—big admiration, falling in love, the first stage of love, blind admiration, chemical reactions in a head. But you don't know well that person you are admiring.
B 17,10,20,16,1,5—love after many years of friendship, big trust, soul friends, close person.
IA1 8,9,18,7—hormone storms, big admiration, looking at the world through rose-colored glasses.

IA2	15,12,3—feeling of safety. Trust your partner.
IB	
IB1	17,5,16—just good friends, friends like brothers. But not a platonic love—I understand platonic love as love without sex. They want but they can't.
IB2	1,10, 20—caring love, mother's love.
IA1a	18,9—blind love, not stable state of being, crazy love.
IA1b	7,8—happiness, joy, big self-confidence, all the world at your feet.
IA2a	12,3—strong love, the first years of love. Partners are unable to be without each other, big admiration of each other.
IA2b	15—making love more colorful (*meiles paiivairinimas, nuspalvinimas*).
IB1a	16—love after many years.
IB1b	5,17—friendship. Like between brothers. Or it could be the beginning of love.
IB2a	1—material side of love.
1B2b	20, 10—very strong love, self-sacrificing love.
IIA	13,2,11,14—unhappy love.
IIB	4,6,19—the things about which I don't have what to say. I don't associate them with love.
IIA1	2,13—painful love.
IIA2	11,14—crazy love, blind love.

You can use another sorting system, but it has to be in some sort of outline form, where each sort is nested in the previous sort so that everything looks like a taxonomy (as illustrated in figure 2).

This data can be compiled from all the informants and used to create a large aggregate proximity matrix (shown in table 6), which can be used to visually represent the relative relationship of each term with every other term. Note that the labels for each pile provide valuable prototype information for the different semantic extensions that come from the core term "romantic love." Thus it is clear that romantic love does include a variety of "colors of romantic love" (Lee 1976), based on how people experience romantic love in their lives rather than as a linguistic term. The main division seems to be between unrequited and requited love. "Requited love" is further divided into two components, "good friends" and "big admiration," and "unrequited love" into "unhappy love" and "not love." But we are getting ahead of the story. We have discussed recruiting informants, and eliciting and recording pile-sort data. The next step is inputting the data into a format in which it can be analyzed.

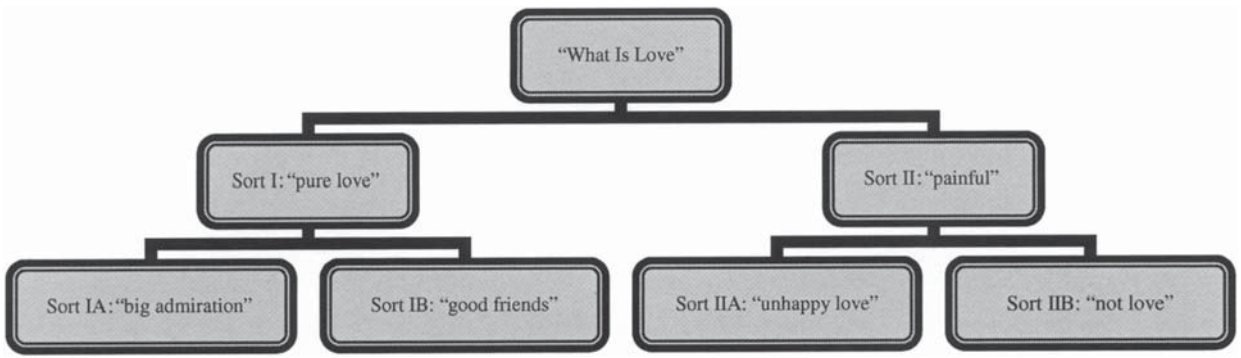


Figure 2. A general taxonomic framework for recording pile sorts in the field

Inputting Pile-Sort Data

Table 5 comprises a part of the entire set of pile-sort data that we used for our analysis of "what is love?" The data in table 5 can be inputted by the reader, to follow the discussion of the analysis.

We put the pile-sort file shown in table 5 into ANTHROPAC (as you can just cut and paste it into ANTHROPAC as well—but first you must convert it from a Word file to a text file). We obtained an aggregate proximity matrix (AGPROX) for each sample. The aggregate proximity matrix only tells you the percentage of times (from 0 to 100 percent) that any term was sorted with any of the other forty-two terms. The AGPROX file is shown in table 6.

If you look at the diagonal of the AGPROX matrix, you will notice that it reads 1.00 all the way across. This is because it is a square matrix, in which the terms along the columns are the same terms, in the same sequence, as the terms along the rows. The diagonal simply means that a term is always grouped with itself. To quickly figure out how to read the AGPROX matrix, you can see that, along the NOT_MATERIAL row, informants grouped NOT_MATERIAL with SADNESS 12 percent of the time, and BEING_TOGETHER with NOT_MATERIAL 34 percent of the time. Thus, BEING_TOGETHER is more closely associated with NOT_MATERIAL than SADNESS is. This makes eminent sense if NOT_MATERIAL is indeed thought of as an important quality of romantic love. Furthermore, if you look along the NOT_MATERIAL row, you see that SEX_UN (code for "sex is unimportant") is one term frequently associated with NOT_MATERIAL. I was glad to see this association, because it offers a quick face-validity check on the data. **Face validity** refers to a common-sense association between two variables. Sex is a kind of material pleasure, that is, a pleasure of bodies, whereas love is a kind of spiritual, nonmaterial pleasure. It is this reasoning that gives face validity to the informants' ratings of these two terms as similar.

The problem with an AGPROX matrix is that it is impossible to read. To optimize its value, we need to put it into a format that is easier to read. The two most common formats are multidimen-

sional scaling (MDS) and hierarchical clustering. These formats are just different visual representations of an AGPROX matrix. But they also function as two different methods for analyzing the AGPROX matrix. Before you begin to feel overwhelmed by the generation of matrices and statistics, its time to insert a reminder of our Clint Eastwood law, "A man's got to know his limitations."

The "Gordian Knot" of What You Need to Know

Before we discuss these complex data-analytic procedures, we need to discuss exactly how much you need to know about the underlying logic and mathematical soundness of these procedures. My bias (which works for me) is that we cannot spend a lot of time unraveling "Gordian knots." Instead, as researchers, we should just cut through the knot. You cannot be a great statistician, a great methodologist, and an expert theorist in one lifetime. You need to know enough so that you can use the productions of great statisticians, methodologists, and theorists appropriately. "A man's got to know his limitations." Your goal is to do research—that is, to ask a question; to devise systematic, sound, appropriate ways for answering those questions; and to provide accurate, convincing evidence for your answers. That's a humongous task requiring a catholic competency, not black-belt-like expertise in all aspects of the research tasks. You can use complex methods without knowing the underlying mathematical derivations of these methods, as long as you know how to use the methods appropriately!

You conduct a pile-sorting task in order to investigate semantic categories and the relations between terms. You obtain the aggregate proximity matrices in order to display the aggregate data obtained from your informants. The aggregate proximity matrix shows the percentage of times terms were sorted with each other. It is reasonable to assume that terms more frequently sorted together are in fact thought to be more alike than those terms seldom or never sorted together. Hierarchical clustering and MDS are two ways of representing the pile-sort data. Below,

Table 5. Pile-sort data prepared for data analysis using ANTHROPAC

```
dl nm=10 n=21
format=ps
labels:
not_material,sadness,being_together,sex_un,kind,first_stg,happy,upsurge,
idealize_wrld,altruism,giddy,tender,disapt,stupid,surprise,mutual,friend,not_ord,
temp,care,butterfly
Data:

#1f41
13,19,2,4
1,9,17,12,16,3,18,5,21,7,8,11,14,15,1
0,20,6
2,13
19,4
18,21,8,11,14,15,9,17,1
20,12,16,3,5
9, 1,15,17,18
14,11,21,8
9,18,15
1,17
8,11,21
14
16,20,5,12,10,3,7
6
10,12,20,5,7,16
3
10,5,16,12,20
7
20,10
5,12,16;
#2f20
17,10,15,1,20,16,5,12,3,9,18,7,8
6,4,19,2,11,14,13
6,10;
#4f24mom
9,18,8,7,2,11,10,4,1
19,13,14,3,20,5,16,12,17,6,15
18,10,1,4
9,8,11,7,2
10,18
1,4
8,9,11
7,2
19,15,6,14,13
16,5,20,3, 12,17
13,19,6
15,14

16,3,12
17,20,5;
#5f30shop
10,2,13,7,20,17,19,1,6,4
14,3,16,5,18,9,15,12,11,8
18,5,16,3
9,14,15,12,8,11
18,3
16,5
8,11,12,9
5,7
3,12;
#5f27asta
10,15,14,11,3,17,7,8,20,12,16,9,2,5
4,13,1,18,19
15,5,16,12,20,7,17
10,2,3,14,11,8,9
5,12,20,16,17
15,7
17,16
12,20
10,9,8
2,14,11
3
19,13
18,4,1;
#3male32
19,14,4,13,2,10,9,20
11,8,3,17,16,5,7,18,15,1,6,12
9, 19
10
4
2,13
20,14
6,17,16,5,7
```

8,7,18,9,15,12,
17,10,20,16,1,
8,9,18,7
15,12,3
17,5,16
1,10,20
18,9
7,8
12,3
15
16
5,17
20,10
13,2,11,14
4,6,19
2,13
11,14;
#3f20stu
19,9,2,14,13,1,10,4,6
3,12,16,20,5,7,18,8,11,17,15
17,7,5,3,12,16,20
11,8,18,15
7,5,16,20
3,17,12
15,18
8,11
5,20
7,16
17
3,12
19,14,2,9
13,1,10,4,6
4,19
2,9
1,4,13
15,14
20,7,13,17,10,2
6,19
1,4
13,2
17,7
10,20;
#1male26
1,3,5,7,8,10,12,15,16,17,20
2,4,6,9,11,13,14,18,19
5,7
8,10
12,16
17,20
1,3,15
18,19
9,11
13,14
6,4
2;
#6fsiga
2,13,14,9,6,19
11,21,8,15,4,18,12,5,10,1,17,3,7,20,16
6,9,14
2,13,19
3,7,20,16,1,10,5,12
4,11,21,15,8,17,18
4,18,17
11,21,8,15
11,8,21
15
10,1,20,16
3,5,7,12
1
16,20,10
15,8,18
12,11,13
6
16
7,5,17
7
17
15

8,18
3,11
12;
#9f23
17,9,10,6,11,7,2,8,5,14
1,19,20,4,12,3,13,18,16,15
2
10,5
11,7,8
14,9
6,17
11
7,8
15
18, 13
3,20,12,16
13, 18
4,1,19
20
12,16,3
3
12,16
4
19,1

Table 6. Aggregate proximity matrix of pile-sort data

		1 NOT_M	2 SADNE	3 BEINGS	4 SEX_UN	5 KIND	6 FIRST	7 HAPPY	8 UPSURI	9 DEALA	10 LTRUGI	11 DDYTEN	12 DEDISA	13 PSTUPI	14 SURPRM	15 UTUAFR	16 IENNOT_O	17 TEMP	18 CAREBU	19 TTE	20	21
1	NOT_MATERIAL	1.00	0.12	0.34	0.50	0.26	0.27	0.41	0.36	0.24	0.43	0.21	0.32	0.23	0.10	0.42	0.35	0.40	0.51	0.23	0.33	0.08
2	SADNESS	0.12	1.00	0.07	0.32	0.08	0.28	0.25	0.18	0.43	0.30	0.33	0.03	0.58	0.47	0.03	0.03	0.15	0.08	0.42	0.15	0.00
3	BEING_TOGETHER	0.34	0.07	1.00	0.07	0.50	0.13	0.34	0.32	0.16	0.25	0.28	0.72	0.07	0.16	0.45	0.58	0.37	0.31	0.07	0.43	0.05
4	SEX_UN	0.50	0.32	0.07	1.00	0.03	0.32	0.12	0.10	0.17	0.27	0.20	0.07	0.43	0.20	0.12	0.07	0.15	0.35	0.53	0.17	0.07
5	KIND	0.26	0.08	0.50	0.03	1.00	0.20	0.60	0.32	0.17	0.35	0.23	0.54	0.03	0.17	0.33	0.67	0.61	0.22	0.03	0.52	0.05
6	FIRST_STG	0.27	0.28	0.13	0.32	0.20	0.90	0.22	0.13	0.28	0.25	0.23	0.12	0.37	0.42	0.15	0.15	0.30	0.13	0.43	0.13	0.05
7	HAPPY	0.41	0.25	0.34	0.12	0.60	0.22	1.05	0.52	0.30	0.43	0.28	0.43	0.07	0.11	0.34	0.48	0.52	0.28	0.05	0.46	0.05
8	UPSURGE	0.36	0.18	0.32	0.10	0.32	0.13	0.52	1.05	0.52	0.41	0.67	0.38	0.00	0.26	0.48	0.31	0.39	0.47	0.00	0.24	0.20
9	IDEALIZE_WRLD	0.24	0.43	0.16	0.17	0.17	0.28	0.30	0.52	1.05	0.37	0.47	0.23	0.18	0.58	0.28	0.17	0.23	0.37	0.27	0.18	0.05
10	ALTRUISM	0.43	0.30	0.25	0.27	0.35	0.25	0.43	0.41	0.37	1.00	0.20	0.26	0.18	0.24	0.18	0.31	0.31	0.23	0.13	0.53	0.05
11	GIDDY	0.21	0.33	0.28	0.20	0.23	0.23	0.28	0.67	0.47	0.20	1.00	0.28	0.15	0.44	0.32	0.18	0.27	0.33	0.10	0.12	0.20
12	TENDER	0.32	0.03	0.72	0.07	0.54	0.12	0.43	0.38	0.23	0.26	0.28	1.00	0.10	0.16	0.46	0.69	0.41	0.27	0.07	0.52	0.05
13	DISAPT	0.23	0.58	0.07	0.43	0.03	0.37	0.07	0.00	0.18	0.18	0.15	0.10	1.00	0.38	0.12	0.07	0.10	0.20	0.62	0.18	0.00
14	STUPID	0.10	0.47	0.16	0.20	0.17	0.42	0.11	0.26	0.58	0.24	0.44	0.16	0.38	1.00	0.28	0.13	0.17	0.13	0.37	0.19	0.08
15	SURPRISE	0.42	0.03	0.45	0.12	0.33	0.15	0.34	0.48	0.28	0.18	0.32	0.46	0.12	0.28	1.00	0.40	0.41	0.49	0.12	0.33	0.13
16	MUTUAL	0.35	0.03	0.58	0.07	0.67	0.15	0.48	0.31	0.17	0.31	0.18	0.69	0.07	0.13	0.40	1.00	0.47	0.30	0.07	0.57	0.05
17	FRIEND	0.40	0.15	0.37	0.15	0.61	0.30	0.52	0.39	0.23	0.31	0.27	0.41	0.10	0.17	0.41	0.47	1.00	0.32	0.08	0.50	0.12
18	NOT_ORD	0.51	0.08	0.31	0.35	0.22	0.13	0.28	0.47	0.37	0.23	0.33	0.27	0.20	0.13	0.49	0.30	0.32	1.05	0.18	0.20	0.12
19	TEMP	0.23	0.42	0.07	0.53	0.03	0.43	0.05	0.00	0.27	0.13	0.10	0.07	0.62	0.37	0.12	0.07	0.08	0.18	1.00	0.17	0.00
20	CARE	0.33	0.15	0.43	0.17	0.52	0.13	0.46	0.24	0.18	0.53	0.12	0.52	0.18	0.19	0.33	0.57	0.50	0.20	0.17	1.00	0.05
21	BUTTERFLY	0.08	0.00	0.05	0.07	0.05	0.05	0.05	0.20	0.05	0.05	0.20	0.05	0.00	0.08	0.13	0.05	0.12	0.12	0.00	0.05	1.00

I will explain how to read these visual representations of the data. I will be silent, for good reasons, on the theoretical/mathematical underpinnings of the MDS and hierarchical-clustering procedures. If you really want to know that stuff, take some advanced statistics classes; but I think this would be a big waste of time, unless the mechanics of producing these analyses is more interesting to you than the analysis itself. However, I do think that it is imperative to take some basic statistics and logic classes in order to be able to use these methods appropriately. Just remember the "Gordian knot theory" of moving ahead in the often-obfuscatory world of methods. You don't need to be a car mechanic in order to drive a car; you don't need to be a statistical expert in order to use statistical methods. Let's get on with the analysis!

Using MDS to Analyze Pile-Sort Data

MDS is a more user-friendly representation of the AGPROX matrix. It is a nonmetric visual map of semantic proximities of the terms, as judged by the pile-sort informants. *Nonmetric* denotes that the distances between terms indicate correlational and not metric distances. Simply put, the "distance" between NOT_MATERIAL and SADNESS is not analogous to the distance between Amsterdam and Paris. The distance between Amsterdam and Paris is a *metric*; that is, it can be measured by a meter tape. The distance between NOT_MATERIAL and SADNESS cannot be measured by a meter tape.

In ANTHROPAC, all you do is put the AGPROX matrix into the nonmetric MDS module and press "enter" (or F10). The MDS may be read by interpreting the terms as clusters or as dimensions. Hierarchical clustering (presented next) is the best method for analyzing terms as clusters; hence, it is best to interpret the MDS in terms of dimensions. **Dimensions** refers to the underlying logic informants used to assess similarities (or whatever the criteria are) among the pile-sort terms (which they express by sorting them). Antonyms such as "good-bad" or "active-passive" serve as the poles of a dimension. Terms, or the values a variable can take, are usually ordered according to the underlying logic

of the dimension. For instance, good-emotion terms like "happy" grade into neutral-emotion terms like "okay," and these grade into bad-emotion terms like "terrible."

I consider the MDS to be a semantic landscape, and the words reflect conceptual nodes of relative density (like homesteads, villages, cities, etc.). Where words are particularly densely clustered implies a prototypical cluster. Places where there are just single terms (comparable to parts of the landscape where there are just scattered homesteads) represent semantic extensions from the cluster along the inferred dimensions. Around the prototype, you will usually find a dense cluster of terms that represent the beginnings of extensions from the prototype and also represent nuanced meanings (i.e., slight variations in meaning from the prototype). The actual prototype may be that term which informants said was the most typical term of those terms found in a cluster. However, it doesn't matter so much which term is used to represent the prototype, since the prototype refers to the core attributes that organize a particular semantic domain, and all the terms within this cluster contain these core attributes. For instance, "crow," "pigeon," and "robin" all contain the prototypical, basic, criteria for "birdness." Which of these three birds is chosen does not really impact on these general, categorical criteria of "birdness."

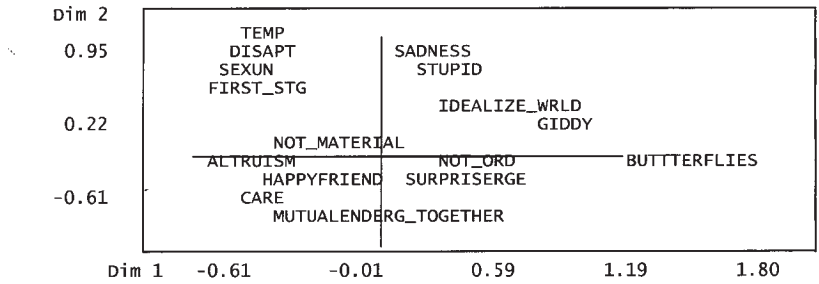
The dimensions are always vertical and horizontal and sometimes they may not even exist. For instance, if there are terms distributed horizontally but not vertically, then maybe there is only one major dimension that people are relying on. The dimensions are always inferred; they are a best guess for deciding what the anchor points might be. Often, however, they have face validity, because they make sense to other people interpreting the MDS.

Reading the Coordinates

The twenty-one terms are displayed with their coordinates. The coordinates are located outside the box along the vertical (Y) axis and horizontal (X) axis. The coordinates are important because oftentimes you will notice that terms are "on top" of

Coordinates of terms(two dimensions)

		1	2
1	NOT_MATERIAL	-0.32	-0.10
2	SADNESS	0.04	1.26
3	BEING_TOGETHER	0.07	-1.01
4	SEXUN	-0.56	1.01
5	KIND	-0.34	-0.97
6	FIRST_STG	-0.64	0.69
7	HAPPY	-0.32	-0.57
8	UPSURGE	0.58	-0.57
9	IDEALIZE_WRLD	0.44	0.53
10	ALTRUISM	-0.64	-0.11
11	GIDDY	0.71	0.24
12	TENDER	-0.04	-0.95
13	DISAPT	-0.62	1.28
14	STUPID	0.31	0.87
15	SURPRISE	0.37	-0.37
16	MUTUAL	-0.29	-1.00
17	FRIEND	-0.07	-0.57
18	NOT_ORD	0.47	-0.13
19	TEMP	-0.47	1.36
20	CARE	-0.62	-0.61
21	BUTTERFLY	1.95	-0.29



Stress in 2 dimensions is 0.157

Figure 3. MDS of terms associated with romantic love (using pile-sort data) for the Lithuanian informants

each other and difficult to read. For example, you can see, in the middle of the MDS, the word SURPRISERGE, which is a combination of SURPRISE and UPSURGE. Note that the coordinates for SURPRISE are 0.37, -0.57, and the coordinates for UPSURGE are 0.58, -0.57. Thus, along the horizontal axis, SURPRISE begins at 0.37 and UPSURGE a little further along, at 0.58. Similarly, both have negative Y coordinates close to each other, which accounts for why they are on top of each other.

Reading Stress

Stress refers to the amount of distortion in the visual representation. By convention, 0.16 is the maximum stress permitted for making valid interpretations from the MDS (though one can

"fudge" to 18 percent). The distortion comes about because the MDS represents the best-fit, nonmetric "distance" between (say) term A and all other terms, and then does the same for term B, and so on. It is usually impossible to fit all these terms onto a flat, two-dimensional space without "fudging" the distances. Try it yourself: Take three points in nondimensional *Euclidean* (that is, geometric) space. Say point A is 1 unit distance from B, and 10 unit distances from C; but B is only a 2-unit distance from C. You can't accurately represent these distances in two dimensions, so you "fudge." Stress is a measure of the amount of aggregate fudging. If your stress is low, then two dimensions suffice to interpret your MDS; but if your stress is high, then maybe the terms are better understood in terms of three dimensions. ANTHROPAC, and other programs that produce MDSs (such as SPSS), allow you to ask for a three- (or four-) dimensional MDS. Your problem of having too much stress disappears in three dimensions (but not in real life!). But you've created another problem for yourself: three dimensions are significantly harder to interpret in a two-dimensional space (that is, on paper) than two dimensions. So usually we opt for two dimensions. But you are welcome to play around with three. Four becomes almost impossible to read, but all stress is gone. Isn't that the way of the world?

Reading the MDS Itself

Reading an MDS can be very difficult. I remind the reader that the pile sorting was done with Lithuanian terms and was analyzed with Lithuanian terms and was only then translated into English. This leads to a tangle of semantic complications that we need not go into right now, but which we will further explore in the section of this chapter on pitfalls. A second and more insidious problem, because it is often not apparent to the analyst, is that the analyst uses his or her own cultural understandings and biases to interpret the MDS. This led me to misinterpret the MDS initially (more on this in the pitfalls section). It is interesting to note that none of my readers, journal referees, or audiences at conferences recognized the errors in my analysis of the

MDS. Perhaps they were too polite, but I don't think so. I think they thought that my interpretation of the MDS was reasonable.[2] However, the strength of the scientific method is shown by the fact that any interpretation (or analysis) can be tested. Testing the interpretations of the dimensions which structured the placement of terms in our MDS showed us that my initial interpretations were wrong. (This is discussed in the following section, on validation.) The correct interpretation is presented below.

Dimensions are to be looked at independently of one another. Thus, when we try to infer the vertical dimension, then we need only look at the vertical (top-down) placement, and not the horizontal (left-right) placement of terms. This is sometimes difficult to do; but we must remember that the vertical dimension is akin to the Y coordinate, and the horizontal axis is akin to the X coordinate, with each term's location dependent on the conjunction of these two coordinates. The reader should also remember that the terms are all generated with reference to the question, "What is romantic love?"

If we look at the vertical dimension carefully, we note that this dimension goes from TEMP at the top to SADNESS AND DISAPT then down to IDEALIZE_WRLD, NOT_MATERIAL, and finally MUTUAL, TENDER, and BEING_TOGETHER. The vertical dimension appears to reflect a bad–good gradient, with the "worst" terms on top and the "best" terms at the bottom. The horizontal dimension seems to be a gradient that goes from "real romantic love," indicated by terms like ALTRUISM and FIRST__STG, to a "fantasy" notion of romantic love, indicated by terms such as IDEALIZE_WRLD, GIDDY, UPSURGE, and BUTTERFLIES.

This, I think, is an interesting analysis because it indicates that our Lithuanian informants are analyzing romantic love as a holistic complex of attitudes and feelings that are in a dialectical and dynamic relation with each other. Thus, in the "fantasy and good" quadrant, the couple are TOGETHER, and for both there is a FIRST_STG; TEMPORARY is also a realistic evaluation of the first stage of romantic love. But GIDDY, IDEALIZE_WRLD, and so on refer to the "madness" of love or, in our terminology, "fantasy" romantic love. These are feelings that are every-

where recognized by, and desirable to, those in love, precisely because they are not real (in the mundane, pragmatic sense of the word *real*). ALTRUISM, CARE, and BEING_TOGETHER can be part of a twenty-year marriage or a one-week, romantic-love relationship. The horizontal dimension is a gradient from a worldly, pragmatic, mature relationship to one that is fantastic and poetic.

Validating Your Interpretation of the MDS

It is best to validate your interpretation. One way to do this is to give the MDS to five or so other people who are good at reading MDSs, asking them what they think the two dimensions are. If there is agreement, then you are okay; if not, then you might give the MDS to more people, until you can get a reliability over 0.80 (that is, four of five agree).

I conducted a PROFIT (property fitting) analysis on the MDS (Borgatti 1992, 36–39). If we think that people evaluated terms along two dimensions, one being a negative–positive dimension and the other a real–fantasy dimension, then we need to test this hypothesis. The way to do that is to ask a new set of informants to rate all twenty-one terms on each dimension separately. I asked ten informants to rate the twenty-one terms on two three-point scales. The first scale was defined as follows: *3* = positive, *2* = neutral, and *1* = negative. The second scale had the following structure: *3* = real, *2* = neither real nor fantasy, and *1* = fantasy. The expectation was that the ratings for each of these dimensions would correspond with the placement of terms along each dimension. For instance, terms that had a rating between 2 and 3 for the first and second dimensions would be situated toward the "positive" (bottom of the vertical line) and "real" (left end of the horizontal line) anchor points, and so on.

We collected the questionnaire data and ran the results through a PROFIT analysis, which is the same as doing a multiple regression analysis on the MDS. Doing this was relatively easy, and we obtained two regression lines (one for each dimension), as well as the R-Square rating for each regression line (or

hypothesized dimension). R-Square informs you whether the location of terms in the MDS is related to your dependent variables (your best guess as to what the two dimensions really are). If the two regression lines fit the distribution of terms along both the vertical and horizontal dimensions significantly better than chance, then your hypotheses concerning both dimensions are probably correct. The R-Square statistic is a measure of the fit between dimension and distribution of terms in the MDS. You want an R-Square that is, at minimum, over 0.60 to have some confidence that you are right. If the R-Square is over 0.80, then you can be extremely confident that your hypothesis is correct, though it can never be proved with 100 percent certainty to be correct (Borgatti 1992, 39).

The results are presented in figure 4. The arrow points to the direction of change for the attribute; thus, in dimension 1, the direction is from positive to negative terms, and in the second dimension the direction is from real to fantasy terms. The two regression lines begin (at points PRO1 and PRO2, respectively); each then intersects the cross (+), located at the center of the map (coordinates 0,0), and then continues on. The arrow points show the direction of the gradients, from real to not real and from good to bad. Each regression line is a best-fit line for a dimension; so PRO1 is the starting point for the best-fit line for dimension 1 (good to bad), and PRO2 is the starting point for the best-fit line for the second dimension (real to unreal).

The way to interpret the placement of the terms above is to draw a perpendicular line from each term to the respective regression lines; that intersection is the place of the term on the multiple-regression line. The distance that a term is from the regression line (or dimension) is completely irrelevant to interpreting the term's relationship to other terms along that dimension. For illustrative purposes, perpendicular lines are drawn from the terms IDEALIZE_WRLD and FIRST_STG to dimensions 1 and 2, indicating where these terms are located on the regression line. IDEALIZE_WRLD is seen as more "positive" than FIRST_STG, and is also associated more with a "fantasy" notion of love than the latter term.

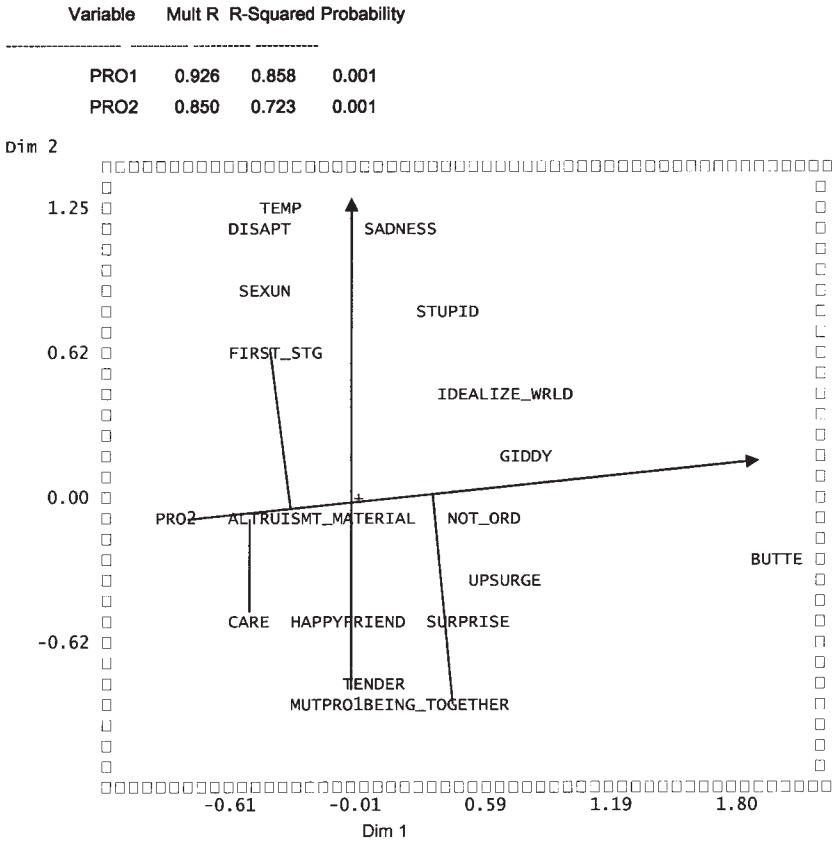


Figure 4. Testing our interpretation of the MDS using PROFIT analysis

It is important to note that the R-Square for variable 1 (positive–negative terms) is very high (.858), and that the probability of this occurring by chance is .001; therefore, the relationship is significant and valid. The R-Square for the second variable is also significant, though somewhat lower. These results are very exciting because they validate our analysis to this point and, furthermore, we can incorporate the previous analyses into further stages of research. Property fitting is an important way of testing your interpretation of the MDS. It should always follow an MDS analysis, if the interpretation of the MDS is to be considered reliable and valid.

The MDS, Freelisting, and Prototypes

The MDS increases our confidence in the validity of our earlier freelist analysis of romantic love. From the data thus far obtained, I think we can postulate the following prototype:

- Romantic love can be viewed as both positive (or good) and negative (or bad). When it is "good," it is associated with positive emotions and relational features such as HAPPY, MUTUAL, and BEING_TOGETHER; and when it is "bad," it is associated with negative emotions and relational features such as SADNESS, TEMPORARY, and DISAPT .
- Romantic love can be viewed as "real love" or "fantasy love." When "real," it is associated with ALTRUISM, CARE, and FIRST_STG. When it is viewed as "fantasy," it is associated with such features as IDEALIZE_WRLD, UPSURGE, STUPID, and BUTTERFLIES.

I think for Lithuanians, all of these qualities are part of romantic love. There appear to be four prototypes of love: the "fantasy-good" romantic love; the "fantasy-bad" romantic love; the "real-good" romantic love; and the "real-bad" romantic love. The prototypes of these are combinations of the behaviors and feelings referred to by the terms above. Some may be emphasized more than others, and some courtship sequences vary in their progress (or termination); but always, I would hypothesize, a person will evaluate his or her relationship within this generalized prototypical model of romantic love. One may note that terms such as "passion" and "intimacy" are not included above. It seems to me, however, that the terms above are more concrete representations of those more abstract terms.

The MDS focused on the underlying dimensions of the twenty-one terms that identified Lithuanian cultural features of romantic love. We can also interpret the pile-sort data by investigating how the terms cluster with one another, rather than how they relate to underlying dimensions. To conduct this type of analysis, we turn to another analytical tool: hierarchical clustering.

Hierarchical Clustering

Hierarchical clustering is a means of representing the aggregate proximity matrix into easily readable levels of nested inclusiveness. To clarify: a *cluster* is some group of terms that are thought to be similar; they cluster together, but there is no central point, like the sun, around which they cluster. *Hierarchical* means that clusters are nested, or subsumed, in larger, more inclusive clusters, just like a taxonomy.

A hierarchical cluster can, and should be, read from both top to bottom (i.e., the base) and bottom to top. At the bottom, you can see that there is a row of Xs; this represents the initial condition, when all the terms are yet to be sorted and the index cards for the pile sorting are handed to the informant. At this point, all the terms are undifferentiated members of one cultural domain or category. As individuals sort cards (that is, the terms written on the cards), some terms are grouped together more often than others, and so "clusters of proximity" are formed.

At the very "top" of the hierarchical clustering one sees an array of three Xs that combine or cluster together the two terms most frequently associated with one another. In this case those are BEING_TOGETHER and TENDER. To the left, under "Level," one sees the odd number 0.7167. To make sense of this, go back to the initial AGPROX matrix (table 6), and note that these two terms were sorted together 72 percent of the time. The next pairings are KIND and MUTUAL (0.671). Note that the two pairs (BEING_TOGETHER/TENDER and KIND/MUTUAL) form one cluster at level 0.6130. This number represents the nongeometric, or Euclidean, distance between the midpoint of cluster 1 (BEING_TOGETHER/TENDER) and the midpoint of cluster 2 (KIND/MUTUAL). Note that any hierarchical-clustering program usually offers you three choices: (1) *average distance*, the distance from a point (or term) to the midpoint of a cluster; (2) *minimum distance*, the distance from a term to the nearest term in a cluster; and (3) *complete distance*, the distance from a term to the farthest term in a cluster. The program default is to use the average distance.

As noted, it is important to read a hierarchical cluster from both the top down and the bottom up. From the top down, we

can see that BEING_TOGETHER, TENDER, MUTUAL, and KIND form the semantically most proximate cluster. I read this to mean that from the pile-sort terms, informants understand romantic love as an intimate, close, good relationship, where both partners are of equal status, and that BEING_TOGETHER is valued in and of itself and not for any other purpose. BEING_TOGETHER is its own "master motive" (D'Andrade 1987, 43).

I then looked at the base of the hierarchical cluster and noted that it is divided into two main conceptual units (CUs) at the 0.2718 level. What are they? To figure this out, you have to see what the terms in the CU to the left have in common, and what those in the CU to the right have in common. The one on the right was easier for me to read; I inferred that it consisted of all sorts of good terms that do not involve excessive physiological/emotional arousals and that reflect the conditions for a long-term, good love relation. This fits with the MDS analysis—not surprisingly! BUTTERFLIES is the odd term out on the right; but note that it is really, as it is in the MDS, a term in its own group, and that it is in fact (looking at the AGPROX matrix) most closely related to GIDDY and UPSURGE. So we can ignore it, for now. The cluster on the right is also divided into two subclusters: the one consisting of the terms SURPRISE, NOT_MATERIAL, and NOT_ORD, and the other consisting of the terms from BEING_TOGETHER to CARE. I take the first subcluster to indicate a kind of sacredness associated with romantic love that differentiates it from the "secular" quality of sex and everyday life. Romantic love is a unique feeling based in some deep, spiritual (if you will) sense of "belonging." The other group of terms—BEING_TOGETHER to CARE—all refer to the maintenance of a love relationship. Thus, from reading the right side of the hierarchical cluster, our analysis accords with that of the MDS, though it is different in that we are analyzing clusters rather than continua.

The cluster to the left is divided up into three subclusters; thus, it is somewhat more fragmented and complex than the cluster to the right, particularly since the three subclusters start relatively far down, close to the base. The first subcluster consists of UPSURGE and GIDDY; the second subcluster consists

of STUPID, IDEALIZE_WRLD, and the somewhat distantly related SADNESS; and the third subcluster consists of TEMPORARY, DISAPT, and (farther down) SEX_UN and FIRST_STG. All of these terms refer to romantic love as unstable and as an emotional roller coaster ride going from GIDDY to SADNESS to DISAPT. It seems to me there are two key conceptual clus-

Table 7. Hierarchical clustering of pile-sort terms

Level	8	11	12	9	14	6	4	13	19	15	1	18	3	12	5	16	7	17	10	20	21
	UPSURGE	GIDDY	SADNESS	IDEALIZE_WRLD	STUPID	FIRST_STG	SEX_UN	DISAPT	TEMP	SUPRISE	NOT_MATTER	NOT_OR	BEING_TOGETHER	TENDER	KIND	MUTUAL	HAPPY	FRIEND	ALTRUISM	CARE	BUTTERFLY
0.7167	.	.	.	.	.	.	.	.	.	.	.	.	XXX	.	.	.	.	.	.	.	.
0.6750	.	.	.	.	.	.	.	.	.	.	.	.	XXX	XXX	.	.	.	.	.	.	.
0.6667	XXX	.	.	.	.	.	.	.	.	.	.	.	XXX	XXX	.	.	.	.	.	.	.
0.6167	XXX	.	.	.	.	.	XXX	.	.	.	.	.	XXX	XXX	.	.	.	.	.	.	.
0.6130	XXX	.	.	.	.	.	XXX	.	.	.	.	.	XXXXXX	.	.	.	.	.	.	.	.
0.5833	XXX	.	XXX	.	.	.	XXX	.	.	.	.	.	XXXXXX	.	.	.	.	.	.	.	.
0.5333	XXX	.	XXX	.	.	.	XXX	.	.	.	.	.	XXXXXX	.	.	.	.	.	XXX	.	.
0.5250	XXX	.	XXX	.	.	.	XXX	.	.	.	.	.	XXXXXX	XXX	.	.	.	XXX	XXX	.	.
0.5083	XXX	.	XXX	.	.	.	XXX	.	XXX	.	XXX	.	XXXXXX	XXX	.	.	.	XXX	XXX	.	.
0.5000	XXX	.	XXX	.	XXXXX	.	XXX	.	XXX	.	XXX	.	XXXXXX	XXX	.	.	.	XXX	XXX	.	.
0.4762	XXX	.	XXX	.	XXXXX	.	XXX	.	XXX	.	XXX	.	XXXXXXXXXX	.	.	.	.	XXX	XXX	.	.
0.4667	XXX	.	XXX	.	XXXXX	.	XXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXX	.	.	.	.	XXX	XXX	.	.
0.4556	XXX	XXXXX	.	XXXXX	.	XXXXX	XXXXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXX	.	.	.	.	XXX	XXX	.	.
0.4458	XXX	XXXXX	.	XXXXX	.	XXXXX	XXXXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXXXXXX	.	.	.	.	.	.	.	.
0.3875	XXX	XXXXX	XXXXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXXXXXX	.	.	.	.	.	.	.	.
0.3826	XXXXXXXXX	XXXXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXXXXXX	.	.	.	.	.	.	.	.
0.2981	XXXXXXXXX	XXXXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXX	.	XXX	.	XXXXXXXXXXXXXXXXXX	.	.	.	.	.	.	.	.
0.2718	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0.1777	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
0.0642	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

ters, and a general dynamic of emotional arousal, that are key to understanding this large cluster. First, STUPID (which, for the Lithuanians, means doing extraordinary "wild" things) is closely linked with IDEALIZE_WRLD, which I think puts extra emphasis on what was previously referred to as "fantasy," as a generalized characteristic of a person who falls in love. Thus, fantastic romantic love is distinct from real love because it is constructed out of idealization and doing "stupid" things. This is further emphasized by the fact that sex is an "unimportant" motive for this fantasy love. People in this condition are prone to, and psychologically entrapped by, intense emotional feelings. Their tendency is to feel GIDDY rather than (as on the right) merely HAPPY and FRIEND[ly]. Those in this form of romantic love are caught up in emotional arousal rather than feelings of TENDER[ness] and CARE.

Again, what emerges from this reading is the notion that there are two cultural prototypes of romantic love: one refers to the temporary romantic relationships of high drama and passions, and the other to a more enduring but still NOT_ORD[inary] kind of relationship (the kind written about by Thomas Hardy). The left and right sides of the hierarchical cluster are sometimes bridged, as when the relationship depicted on the left is transformed over time into the one on the right.

Pitfalls of Pile Sorting

The main pitfalls of pile sorting data are that it takes time and it is easy to make mistakes. For instance, remember that Linas used term 21, BUTTERFLIES, but apparently this term was not initially in Janina's list. She began to use it only after she had already conducted eight pile sorts (out of sixteen). The isolated position of this term in both the MDS and hierarchical clustering is in part due to this mix-up; I would think that otherwise it would be closer to UPSURGE and GIDDY. In other words, you have to have strong organizational skills and patience, and continually double-check your progress, if you are going to conduct pile sorts, especially if you are going to use research assistants

to collect your data. You should also pay, or provide some other reward for, informants, as pile sorting is a time-consuming task that is often exasperating and difficult. If informants are not rewarded for their effort, they can quickly lose interest in "doing you a favor" or doing something "for the sake of science."

As for any other task, you should first conduct a pilot test to estimate how long the pile sort will take, on average, and to find out what questions and difficulties informants and assistants are likely to encounter. You want to make sure that the pile-sort informants understand the terms as you intend them to be understood. Remember, the terms for the pile sort are induced from the freelist. If the same meanings aren't carried over to the pile-sort project, then the study ceases to be emically driven and the pile-sort terms are no longer a reliable reflection of the freelist terms.

For terms like STUPID and SURPRISE, we gave typical sentences, obtained from the freelist commentaries, to illustrate what these meant. Thus, STUPID (*kwailyste*) meant someone who does "stupid/silly romantic things." SURPRISE is the term we used to refer to the many freelist allusions to giving gifts at unexpected times. However, in isolation in the pile sort, it does not have this focused meaning. Analogously to our illustration of the term STUPID, we mentioned to informants that SURPRISE referred to giving the beloved an unexpected gift. This ensured that the pile-sort informants understood the terms in the same way as the freelist informants—who, after all, generated the terms. If an informant is uncertain about the meaning of a term, explain it. And note which terms informants have trouble understanding. If it is a large number of terms then your pile-sort terms need a major overhaul.

The above problems focus on the collection of data. We also encountered a potentially fatal problem with the analysis of data. I initially thought that the horizontal dimension referred to a psychophysiological variable—namely, the arousal of emotions/physiology that goes with real love, and that which goes with false love. Thus I conflated emotions linked to strong physiological arousal (e.g., feeling giddy) with a complex psychological state. But a dimension has to be simple, and it must

be stripped of such cumbersome, complex, and ultimately vague agglutinative concepts. My colleagues to whom I showed the MDS agreed with my interpretation and I thought I was correct. Fortunately, when I tested this hypothesis with PROFIT analysis, I obtained extremely low R-Squares (0.41), and so I could not adopt this interpretation. PROFIT analysis was an important check on the worst threat to validity, the researcher's own biases.

Notes

1. David B. Kronenfeld was my graduate school adviser and mentor, so he must be right!

2. The problem was discovered by my wife, Janina, who, first of all, is a native Lithuanian and who, second of all, applied the parameters of a two-dimensional MDS by not packing two variables into one, as I originally had. Instead, she saw the dimensions as two discrete variables.

5

Designing Questionnaires

Questionnaires have been around since the late 1700s, when John Howard conducted a comprehensive survey of British prisons. However, surveys really took off in the 1930s, when pollsters and policy makers began to use samples to represent target populations (Bernard 2006, 251–52). Today, questionnaires are administered over the telephone, by mail, through the Internet, by waiters and waitresses after dessert, and the old-fashioned way—by being distributed by the researcher or assistants to informants who are given some kind payment, and who do it for the "sake of science" or, less nobly, who are captive students in the researcher's class. There are advantages and disadvantages to all these various recruitment tactics. In this chapter, we will deal only with face-to-face recruitment policies in bounded territories, because anthropologists usually collect data in ethnographic (that is, micro) contexts. However, the problems with constructing a questionnaire and analyzing it are essentially the same, no matter what the recruitment strategy.

A questionnaire should be viewed as a multistage process that begins with a definition of the subject, is designed for a particular purpose, is administered to a sample of the target population, and ends with an interpretation of the results. Every step needs to be designed carefully because the final results are only as good as the weakest link in the above process. The steps

required to design, administer, and analyze a questionnaire include the following:

1. Defining the objectives of the survey
2. Determining the sampling group
3. Constructing the questionnaire
4. Administering the questionnaire
5. Interpreting the results

Each of these steps is discussed below. In addition, as before, I will provide an example of my own research on romantic love in Lithuania and the pitfalls encountered. The actual questionnaire I used will be incorporated into the last two sections of this chapter—the sections on administering the questionnaire and analyzing the results. I begin with a discussion why questionnaires are so popular a tool for social-science research.

Why Are Questionnaires So Popular in Social-Science Research?

Questionnaires are the most frequently used method employed by social scientists for gathering information from human beings about themselves. It is the most efficient and inexpensive way to gather data from a sample that can then be generalized to the larger target population. Many crosscultural questionnaires use samples as small as 20 or 40 to represent a country (Schmitt 2005). I am not saying this is good practice, but it is a frequent practice that is seldom criticized.

The cornerstone of all questionnaires is the fact that a large pool of respondents is provided with, and is asked to respond to, the *exact same stimuli*. This is the key factor that gives questionnaires their power and popularity; because if people are given the exact same stimuli, then it is assumed that all variations in responses reflect actual differences between individuals or groups in beliefs, attitudes, values, or whatever else is being measured. If two groups vary significantly in their responses to

a questionnaire, then we can conclude that these groups differ with regard to the variables measured by the questionnaire (assuming that the questionnaire is reliable). Thus, regardless of how questionnaires are administered, the basic assumption remains the same: all respondents (or informants) receive the same questionnaire in the same way. Given that all respondents have received the same stimulus (the questionnaire and instructions), the results should be a product solely determined by the content of the questionnaire.

Defining the Objectives of the Survey

Without well-defined objectives, a questionnaire is useless and a waste of everyone's time. Without a clear goal, the researcher will overlook important issues that should be addressed. Conversely, the researcher may end up overemphasizing some important issues; worse, the researcher may include issues that are extraneous to the research and only confuse respondents. Without clear objectives, the questionnaire will lack coherence and cause respondents to lose interest. The problems of a poorly defined questionnaire affects the analysis of the findings because it is next to impossible to reach useful conclusions when one doesn't actually know what one is asking.

An objective such as "to identify cultural models of romantic love" may sound relatively clear; but to understand it, we need to know what items the researcher will use to describe romantic love. These items, or questions, should also be clustered together to evaluate a particular objective of the research. For instance, in our freelist and pile-sort analyses, we clearly found out that some people frame romantic love as "not real" while others saw it as "real"; the "not real" frame was positively associated with very intense fanciful features, while the "real" frame was associated with more pragmatic relational features. One objective, then, is to test the relationship between the fanciful and pragmatic versions of romantic love and see the effect each has on specific behaviors (e.g., safe-sex practices). It is critical that

the researchers clarify to themselves what they mean by the constructs they are planning to test.

All of the issues important to the objectives of research must be explicitly addressed before a single question is written. A good rule of thumb is that if you are having difficulty coming up with questions, you should spend some more time considering what the objectives of your research are before trying to come up with another question. Go back and reconsider your objectives, and then the questions should follow in a logical and straightforward manner.

Types of Questions

Questionnaires can be **open-ended** (i.e., semistructured) or **closed** (i.e., structured). A quick note: many methods books equate open-ended questionnaires with unstructured (not semistructured) interviews; but I would argue that there is no such beast as an unstructured questionnaire, given that the construction and formatting of questions entails a structure in the responses. Freelists and pile sorts are open-ended questionnaires. *Open-ended* refers to questions that allow input from the respondent (or informant), independent of the options provided by the researcher. A *closed* (or *structured*) questionnaire is one in which the researcher has provided all response options to a question and asks the informant to choose among them. In this chapter, we will discuss only closed, or structured, questionnaires.

The purpose of a closed questionnaire (within the context of the fieldwork-research design that I am presenting) is to ask questions about inferences the research has drawn from the results of freelist and pile-sort questions. With questionnaires, you can test hypotheses that stem from your analyses of data already collected. Questionnaires need not always be derived from freelist or pile-sort data. However, within the context of fieldwork, they should *always* be derived from the knowledge base of informants *after* the researcher has become familiar with the culture of the target population. The construction of fieldwork questionnaires should be context dependent and culturally dependent. This merely means that the questionnaires are prod-

ucts of the researcher's attentiveness to, and familiarity with, the cultural context, and his or her familiarity with the colloquial vocabulary of natives.

Emic and Etic Designs

Pile sorts and freelists are data-collection tools typically used for obtaining emic data. *Emic data* is data generated by the informants themselves. The informants determine the meaning of the data and also its categorization. Hypotheses and cultural patterns are induced from the data, not the other way around. *Etic data* is the other way around: the researcher posits a general, or *nomothetic*, theory and then tests that theory.

Questionnaires are often the simplest and most direct way of testing a hypothesis. For instance, if you think that lack of money is the primary reason for divorce, then you test this by asking questions directed at evaluating causal relationships between money and divorce. Note that in this case, nothing else matters; culture and all other variables are subsidiary to the primary thesis.

Most questionnaires are etic, in that the researcher decides on a set of questions that are designed to best test her or his hypothesis. In this chapter, the focus is on emic questionnaires derived from freelisting, interviews, pile sorts, or other kinds of semistructured data techniques designed to elicit the natives' views.[1] Emic questionnaires will differ from etic questionnaires in two ways: (1) the questions (or *items*) will be generated from information elicited through emic methodologies, and (2) the questions will be formulated with the vocabulary and linguistic code of the target population and not that of the expert.

Having said this, it is also important to remember that the emic-etic distinction is a strategic and heuristic dichotomy that is never so absolute or pure in practice. My research on romantic love is always informed by my own understandings of romantic love. For instance, my initial reluctance to accept the veracity of many Lithuanians' insistence that romantic love was as substantial as "champagne bubbles" was due to preconceptions about the importance of romantic love as a universal emotion. Second,

once I accepted this cultural difference, I began to obsess on it because it was different. One is caught in one's own biases either way. The best way out of this conundrum is always to be democratic and open about how you conduct your research, each step of the way.

The emic strategy is, first, to learn about how natives understand and experience their world, and then to construct questionnaires from that knowledge in the language of the natives. Thus hypotheses are tested with respect to local populations. (It is questionable how much one can generalize to other populations.) The etic strategy is to find units of analysis (i.e., variables) common to a number of different types of groups, and then to observe how these groups vary (or don't vary) across these units. Of necessity, etic units of analysis will be denuded of the local argot and local understandings.

Determining the Sampling Group

This is a question that is seldom considered explicitly in the field. Anthropologists working in small communities, or even those residing in cities like Vilnius, usually end up getting informants who are willing to complete the questionnaire. In our questionnaire on romantic love, I wanted to sample a target population that was most likely to have had recent experience with romantic love, because I wanted to know not just what people thought about romantic love, but how they experienced it and how it affected their lives. Thus, I wanted a population of individuals between eighteen and forty, preferably not married or only recently married. It is of course true that there are older people who are "in love"—and it might be interesting to study younger populations as they acquired an understanding of romantic love—but I wanted to limit myself to those whom I considered to be in the main age group within which romantic love strikes. Always be explicit about the attributes of your target populations.

Second, I decided that I did not want to complicate the study by including homosexuals. This would have added a com-

parative layer to my research, which, to my mind, would have complicated the research unnecessarily. I was not interested in whether homosexual and heterosexual ideas of romantic love were the same or different. Furthermore, I also wanted to eliminate ethnic differences. In other words, I wanted my target population to be heterosexual Lithuanians (and, crossculturally, Anglo-Americans and ethnic Russians) between eighteen and forty years of age.

After settling on a target population, our subsequent problem was the opposite of our previous problem: rather than figuring out the salient criteria for exclusion from our target population, we now had to figure out the salient criteria for inclusion within our target population. We had to make sure that our final sample was representative of each of these groups. To determine whom to sample, we created a sampling frame based on the work of Handerwerker (1998). A sampling frame is a set of criteria used to select individuals to include in your study, from whom you will generalize to the target population (Bernard 2006, 149). For purposes of the study on romantic love, we considered the following demographic factors: rural/urban, age, gender, and student/nonstudent. The sampling frame then looks as shown in figure 5.

To save space we did not include the "student/non-student" frame; but clearly you can see how to construct a sampling frame. Say, for example, you want to give questionnaires to 200 people. You distribute these equally, according to the sampling frame: 100 to males and 100 to females; then 50 to males from a rural area and 50 to males from an urban area, and 50 to females from a rural area and 50 to females from an urban area; and so on. The sampling frame, I should add, represents an ideal. It keeps you honest, but it is not an iron cage. If you have 200 females and 170 males in your actual sample, don't worry about it. However, if you have many, many more students than nonstudents, as we initially did in the United States, then worry about *this*, and rectify the situation. You can only generalize to the target population if your sample is representative of that population. It is important to note that all individuals who fit your sampling frame have an equal probability of being chosen.

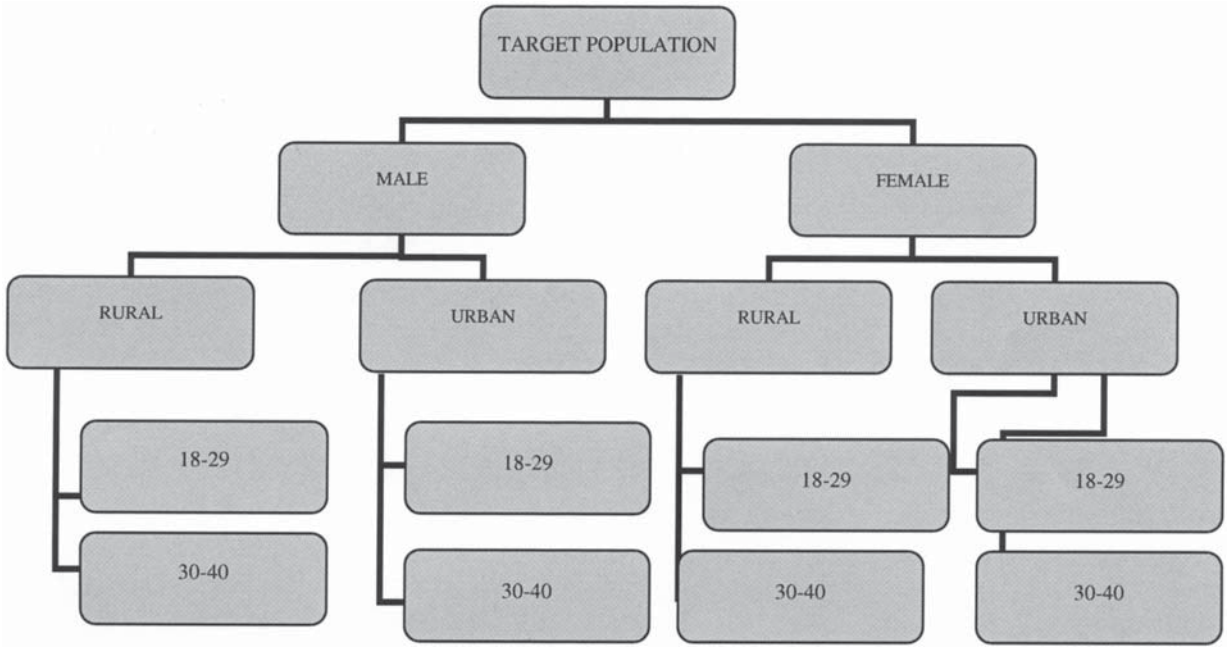


Figure 5. Sampling frame for target population for study on romantic love

One final note on sampling: Everyone wants to know exactly how many people you need for a sample in order to generalize to a target population. It depends partially on the kind of responses to your questions. If there is little variability in a population, then a small sample will do (10–30); if there is great variability, a much larger sample is needed (it can be into the thousands). The size of the sample also depends on the type of question being asked. If you are asking how many seconds there are in a minute you probably only need a sample of 3, but if you are asking people what their favorite television show is in order to find out what is the most popular show on TV, then you will need a much larger sample.

The sample also depends on your sampling frame. In our sampling frame there were four major criteria—gender, age (divided into two categories), rural/urban, and student/non-student—resulting in sixteen different sample frames (e.g., rural males between eighteen and twenty-nine who were students would be one category). Now, we are fortunate in that we are studying culture—meaning that we are assuming that members of the same culture share the same cultural model. There are not likely to be as many cultural models of romantic love (or anything else) as there are "favorite television shows." In fact, there is likely to be one main cultural model of romantic love, and some variations on that theme. Given the assumption of the sharedness of a cultural model, we need at most 40 individuals in each category and, at the minimum, 10 individuals from each category. (See the discussion of the Brown-Spearman prophesy theory in Weller and Romney, 1988, for a table on number of informants needed and confidence intervals.) For instance, if there is 60 percent agreement between informants on any kind of data set, then you only need 9 informants "to classify correctly at least 90% of the questions at the 95% confidence level" (Romney and Weller 1988, 77). That still leads to a complete sample of between 160 and 640 informants (given that you need a minimum of 9 for each sample of the sampling frame). Sixty percent (.60) is not an unusual level of agreement between members of a culture on questions that tap culturally shared knowledge when the respondents in the sample

are assumed, a priori, to be equally culturally competent in the subject of the study.

Constructing the Questionnaire

By this point, you should be ready to write your questionnaire. First we will consider the appearance of the questionnaire; second, the design of the questionnaire; and, third, the actual writing of the questions. Appearance issues include (1) page layout, (2) formatting, and (3) number of questions/pages.

Appearance

Page Layout

The questionnaire should be user-friendly in design and wording. It should, on first glance, be pleasing to the eye. It should not be frilly or cramped. Questions should not be crowded together; the informants should not think the researcher is trying to save paper by using a small font or cramming questions into a page. A questionnaire should look professional but not intimidating. Use white or light-green paper. (Green paper has actually been found to get a better response rate than white paper; Fox et al. 1988, cited in Bernard 2006, 281.)

Formatting

Use conventional margins, spacing, fonts, and font sizes. The margins should be one inch from top and bottom and both sides of the paper; the spacing should be 1.5 lines between questions and one line within questions; and the font should be Times New Roman (or an equivalent font) with a 12-point size (a 10-point size is too small).

The first page should include the title, in uppercase letters and a slightly large font size (e.g., 16 or 18 point); the name and affiliation of the researcher; and a contact phone number and

e-mail address. Instructions should be on the second page. The instructions should be brief and clear, and they should include a statement noting that the survey is anonymous and voluntary, and that participants can skip questions or quit at any time without penalty. At the bottom of the instructions, in bold/italicized type, there should be an *accurate* estimate of how long the questionnaire takes and a thank-you, centered and two spaces down.[2]

Number of Pages/Questions

A typical questionnaire should never be longer than thirty to forty questions. (Remember, this is the upper limit, not the preferred limit.) There are longer questionnaires, but for these participants should be offered real inducements. Anything that someone is doing for free or for nominal remuneration should be "short and sweet," taking no more than fifteen minutes. From the moment the researcher meets a participant, "goodwill credit" is being spent. The more time a survey takes, the less goodwill the participant can summon. Twenty questions is usually enough to get what you want. The questions should be on no more than two pages, and there should be plenty of room for individuals to circle their choices or write their answers.

Design of Questionnaire

In this subsection we will discuss the order of questions, the types of questions, and the wording of questions.

Order of Questions

It is important that the sampling-frame parameters be included in the questionnaire. Sampling-frame questions should come at the beginning of the questionnaire. They are most often put in either *dichotomous nominal* response formats

What is your sex? Male_____ Female_____

or just *nominal* response formats

What is your religion? Christian_____ Jewish_____
Muslim_____ Hindu_____ Buddhist_____ Other_____.

Note that in the nominal response format above, there are two lines for religions. It is always better to have information on one line, because informants may not bother reading the second line. In this case, it is better to put each option on a separate line:

What is your religion?
Christian_____
Jewish_____
Muslim_____
Hindu_____
Buddhist_____
Other_____

These sociodemographic, sampling-frame questions should come first and be clearly delineated on the questionnaire.[3] Sampling-frame questions should also be presented in a format that distinguishes them from the main body of questions.

Once you get to the main body of questions, you should consider the order carefully. Begin by placing the nonthreatening questions first and the more threatening questions last. Make sure the first few questions are simple and interesting.

Questions should follow a logical order so that the participant, who is actively guessing at the purpose of the questionnaire, can see that your explanation and instructions about the objectives of the questionnaire are actually on the mark. Once you have focused the attention of a participant on a particular topic, it is best to stick with that topic. (This goes for interviews as well!) Don't jump around from topic to topic and back again.

Make sure that your questions are not redundant or unnecessary, and that they do not show partial overlap. Ask only the number of questions that you need to reliably test answers regarding a particular theme. *Redundant* questions are those that ask the

same thing but use different wording. For instance, one could ask, "Should the United States adopt a universal health plan? Yes___ No___," followed by "Would you be in favor of universal health care?" There is a difference, but it's too subtle for someone whizzing through a questionnaire. Eliminate all unnecessary questions! If you are interested in people's attitudes regarding health insurance, it is unnecessary to ask them if they own pets, unless you have a specific hypothesis regarding a correlation between having pets and a particular attitude toward health care.

It is usually good to ask a number of questions on the same topic in order to gauge the reliability and intensity of responses. One question on any topic, such as health care, cannot cover all the contextual possibilities you need to cover in order to understand informants' attitudes toward any particular topic. But stop after you have covered the aspects of the topic you wish to explore and evaluate.

Types of Questions

We have discussed the dichotomous type of closed-ended question. Such survey questions offer true/false or yes/no options. A second type of question, also discussed above, is the nominal response format. One other type of response format (usually, but not always, nominal), which we have not discussed but which is frequently used, is the *fill-in-the-blank* type. One example of this sort is "What is your age? _____." A second example is "Name a famous physicist. _____."

A third type of question uses the *ordinal* response format. Here is where we start getting into problems. I have been teaching anthropological methods for ten years, and I am still not sure if scale questions are ordinal or interval-level variables. Blue-blooded methodologists also disagree. For instance, Russ Bernard writes that "scales of opinion—like the familiar "strongly agree," "agree," "neutral," disagree," "strongly disagree" found on so many surveys—are ordinal measures. They measure an internal state, agreement, in terms of *less* and *more*, but not in terms of *how much* more" (Bernard 2006, 47; italics in original).

On the other hand, William M. K. Trochim, a professor of policy analysis and management at Cornell University, writes in his book *Research Methods: The Concise Knowledge Base* (2005, 115) that "one of the most common types of . . . [interval-level response format questions] . . . is the traditional 1-to-5 rating"; he then gives the "strongly agree to strongly disagree" five-point scale as an example of this interval-level format.

Both Bernard and Trochim agree on the definition of an *ordinal* measure: ordinal scales rank items in terms of more or less (better or worse) but do not measure "*how much*." Ordinal scales do not specify a distance, while interval scales do by giving numbers to the scale—for example, 1 = "strongly agree," 2 = "agree," 3 = "neutral," 4 = "disagree," and 5 = "strongly disagree." Now, these numbers are essentially nominal—they represent the scale terms—but by assigning numbers, one can find a mean, and therefore the scale numbers can be used like real numbers, which can then be used as measures of (nongeometric) distance. It is a trick: by giving items in an ordinal scale a number designation (even though the number is a placeholder for a term), the ordinal scale is converted, in terms of how it is used, into an interval-level scale, where numbers do measure distance. Consequently, both Bernard and Trochim are right. I believe that logically Bernard is "righter" than Trochim; but in terms of utility, Trochim is "righter" than Bernard because scales are used as if the scale points did in fact measure distance.

Having said this, I would side with Trochim and distinguish between ordinal and interval scales. An *ordinal scale* is one where items are ranked in terms of preference vis-à-vis one another, but they are not each ranked independently along the selfsame closed-ended scale. Ordinal response formats would look like this: "Please rank the following fruits in terms of preference: orange ____, banana ____, kiwi ____, etc."

An *interval-level* format for the above scale would look like this:

> Along the scale below, please state your liking for the following fruits:

	1	2	3	4	5
	strong dislike	dislike	neutral	liking	strong liking
orange					
banana					
kiwi					
[etc.]					

Contingency, or filter, questions are frequently used but should be kept to a minimum. A *filter question* is used when the qualifications or experience of the participant should first be identified before going on to the next series of questions. A typical example of this sort of question is "Have you ever been fired from a job? If yes, then continue on to the next question; if no, then go to question 6." Sometimes a contingency question can get really complex and lead to other contingency questions. For instance, if you were interested in what happens to people who are fired from a job, then the next question might be "Did you collect unemployment? If yes, continue; if no, go to question 8." Question 8 could be "Did you find another job? If yes, continue; if no, go to question 12"; and so on. Such contingency questions should be kept to a minimum, but on occasion they cannot be avoided. A general rule of thumb is that if you have three or more contingency questions in your questionnaire, you should make a flowchart of all the related contingency questions to see if they are all accounted for in the questionnaire. The flowchart should not be included in the questionnaire; it is a check for the researcher.

Wording of Questions

There are a number of generally agreed upon rules for the actual wording of questions. First, the wording has to be simple, and use a vocabulary that is understood by your target population. The latter should not be a problem for anthropologists who have already spent time in the field and have collected freelist data. Still, you have to be careful not to word questions too simply and appear as if you are talking down to your informants. You have to remember that your goal is to get people to understand the meaning of the question in the same way. The wording

doesn't have to be perfect; it just has to be unambiguous and convey, with a minimum of semantic slack, what you intend it to convey. A simple question such as "How many children do you have?" can still be considered ambiguous because the participant may have adopted and may be unsure whether you mean to include adopted children. Another person may have had a child who died and may be unsure whether to include that child in the answer.

If you are using scales, be sure that the scale options are mutually exclusive and clear. Take the following example: "How well do you get along with your colleagues? (1) very well; (2) reasonably well; (3) a little; (4) not at all." The participant could think that getting along "a little" is "reasonably well" for office relations. Be sure that the options in a multiple choice scale mark distinct evaluative distances.

Avoid questions that incorporate more than one concept. This is a very common mistake. For instance, on a recent health questionnaire I received was the question, "Are you satisfied with your health insurance and care? Yes ___ No ___." As a rule of thumb, any question with an "and" is a bad question; either it should be turned into two separate questions, or one of the concepts should be eliminated.

Threatening and sensitive questions should be kept short, and it is often recommended that they be open-ended (Bardburn 1983, 299). According to Russ Bernard (2006, 269), "People are least threatened when they can offer their own answers to open-ended questions on a self-administered questionnaire, rather than being forced to choose among a set of fixed alternatives . . . and are most threatened by a face-to-face interview." Thus, questions on sexual mores, adultery, masturbation, or alcohol or drug use should be akin to freelist questions rather than rating questions. For instance, one can ask "What are the reasons people commit adultery?" rather than "Have you ever committed adultery? Yes ___ No ___." However, it is also worthwhile to note that the above two questions ask different things and relate to what is called the **ecological fallacy**. The term *ecological fallacy* refers to the error of interpreting variations in environmental settings as variations among individuals. In the question,

"What are the reasons people commit adultery?" it is unclear what unit of analysis the respondents are generalizing to, and it is unclear whether the generalization applies to any individual. For example, we might say that "white men can't jump" as a generalization about white men, but it would be wrong to conclude that (say) *this* particular "white man" can't jump. The first question asks an ecological question in which the **unit of analysis** is a population, with vague criteria for inclusion; the second question stipulates the individual respondent as the unit of analysis. In questionnaires, this distinction between ecological and individual units of analysis should be kept distinct and clear, and usually the two types of units should not be mixed in the same questionnaire.

Finally, ask questions that people are likely to have enough information about to answer correctly with some degree of confidence. You do not want to ask, for instance, if people agree with the principle of a unitary executive branch, but rather you want to ask questions about the power of the president to make unilateral decisions without consulting the other two branches of government.

Administering the Questionnaire

We will begin this subsection by discussing pretesting. I will then give general pointers about administering questionnaires in face-to-face situations with the public. Finally, we will end this subsection with actual examples from our Lithuanian experiences in administering a romantic-love survey.

Pretest

You pretest in order to discover (1) if the variation of answers (i.e., interitem correlation) is either too great (i.e., you get a random distribution of answers) or too small (i.e., the answers are all the same); (2) if most of the people understand the meaning of the question as you intended; (3) if the questions are too difficult to answer; and (4) if the order and flow of the questions are good (Converse and Presser 1986, 54–55). When you are done

with constructing your questionnaire (so you think!), give it to colleagues and students and get immediate feedback from them. Later, give it to a small sample of your target population (five to ten people). After they are done filling out the questionnaire, ask them if they will go over the entire questionnaire with you, thinking out loud about their responses to the overall design, and then about their interpretations of each question. Pay them for their efforts; they are, in a sense, hired consultants, so pay them accordingly, $10–$20/hour (unless you are a student—then use Monopoly money).

Next you should look at the interitem correlation among the items (i.e., the questions on the test) to see if they are reliable measures of the constructs they are presumed to measure. This simply means that if you have a number of questions that are intended to measure romanticism in a population, then those who score high on one of those questions (indicating that they are highly romantic) should score high on other questions of the same type. The interitem correlation for those items that you think measure the same concept should be very high (Cronbach's alpha should be over 0.80), and the interitem correlation between items that you think measure different concepts (or constructs) should be very low (below 0.20 at the uppermost limit, and preferably below 0.10).

A simple way to do an interitem correlation is to take the differences between all the scores and divide them by the maximum possible difference and then subtract that number from 1. The formula for this is $[1-(\Sigma_d/Max_d)]$, where Σ stands for sum; $_d$ stands for difference; and Max stands for maximum. Hence the formula reads, "1 minus the sum of the actual differences divided by the maximum possible differences." You subtract from 1 because the above formula is a way to get the percentage of differences; thus, 1 minus that percentage is the percentage the items are alike.[4] For the above formula, a 0.70 correlation suffices. (Cronbach's alpha scores tend to be a minimum of 0.10 higher than the above formula, particularly as the number of items increases.)

We pretested the interitem correlation on our questionnaire with questions on romanticism, two of which were (1) "To burn

with love is to be raised to heaven" (highly agree, agree, disagree, highly disagree); and (2) "Romantic love is the supreme happiness of life" (highly agree, agree, disagree, highly disagree). You would expect that someone who strongly agrees with the first question would also strongly agree with the second, and that people who score high on the first would score high on all the others of that type. If there is no interitem correlation among such similar items, then people are just marking answers randomly or there is something else that is fundamentally wrong—that is, unreliable—about our questionnaire. So we tested this and obtained a Cronbach's alpha of 0.925 from an initial sample of fifteen Lithuanians.

This three-pronged pretest, along with your analysis of the interitem correlations, should suffice to find the weaknesses in your questionnaire. After you have corrected these problems, you can feel confident that you now have a reliable final version ready to go.

Handing Out Questionnaires in Public Places

All that was left was to go out and actually start getting the good people of Lithuania to fill out our questionnaire. First (ahem, pay attention!) we printed our questionnaires. We bought gummed paper to stick name tags on our shirts; we would also wear name tags in a soft plastic casing around our necks. Each of us carried a clipboard, which we ostensibly displayed as a symbol of our professionalism (very effective!). We had our questionnaire, and a separate sheet with instructions, a contact telephone number, and e-mail information for our informants. We told them that they could contact us to get the results. We developed a short introductory speech that stated who we were and what the project was about. We had this speech memorized and practiced it amongst ourselves so that it was second nature. We made sure to look harmless, and to dress well but not too well (no business suits, no ties, no perfume). We were ready to go.

I had decided that as an incentive, each informant would receive seven litas (about three dollars at the time) to do the

survey. (This was also written in the grant.) My research assistants again disagreed, with the same fervor they'd shown in the case of the freelisting. They reminded me (just as my Russian research assistants had) that no one pays for questionnaires (or interviews for that matter) in Lithuania. "It just isn't done" was their argument, and that was that. I had forgotten because I had gone back to the United States for a few months, where we paid informants in cash.

We bought cheap ballpoint pens, condoms, and gum for informants. These small gifts worked well in Russia and Lithuania but not in the United States. After we settled on these small gifts (mostly we handed out ballpoint pens), our response rate hovered around 80 percent. It was not only the gifts that caused informants to fill out questionnaires. Informants often volunteered that they thought scientific research was valuable in itself and that they appreciated participating in it. In fact, approximately 25 percent of informants refused the ballpoint pen or gum payment. However, our American sample was much more capitalistic and preferred cash payments over ballpoint pens. The response rate in the United States was also much lower—65 percent.

In the beginning we went out as a group. We dressed well, we had rehearsed our introductory remarks, and we had our name tags and clipboards; and armed with ballpoint pens, we went out en masse. In Vilnius we typically went to one of the parks in or near Old Town. We set up our "headquarters" on a bench and then radiated out, returning for breaks and stories and to replenish questionnaires. The first day we collected thirty surveys in less than four hours.

After a few days we began to work on our own and in different places. Janina went to the train and bus stations, interviewing vendors and people waiting for the train or bus. Janina also went to her hometown of Telsiai to distribute questionnaires there (we needed a rural sample). She also went to her brother's doctor's office, where she interviewed patients in the waiting room. Linas stayed in parks and, being adventurous, moved around the large apartment flats on the outskirts of Vilnius. Linas also went to two villages.

I had wanted the recruiting to be randomized, but any algorithm for systematically selecting informants at random was bound to fail because we were recruiting from public places where populations shifted rather than from homes or telephone numbers. We could not simply select every xth person; we contacted those who met our sampling frame criteria, and we did not try to discriminate on the basis of appearance (except if people were asleep, drunk, or obviously indisposed or unwilling to be interviewed).

It was surprisingly easy to recruit informants, though it was hard work. For each informant we had to smile, appear friendly and professional, be somewhat insistent and yet not pushy, and so on. A friendly competition developed between the two assistants, which I did not discourage. I should add that in the United States, we had a lot of difficulty finding nonstudents willing to fill out questionnaires. This was not a problem in either Lithuania or Russia. I think it is because in the United States there are fewer public places (like bus stops and train stations) to go to meet people who are not in a hurry. (We did go to Laundromats and local fairs, with some success.) All in all, collecting questionnaires using a face-to-face strategy was much more difficult in the United States than the other countries. For future research, I would consider the Internet or other automated strategies where people are contacted from a distance and they can fill out the questionnaire at their own leisure. However, to me that isn't fieldwork, that's marketing. I want my assistants (and myself) to see, and interact briefly with, the people we are collecting data from. Furthermore, one should not forget that questionnaires, in fieldwork, are intended to supplement other modes of data collection that are more context friendly; questionnaires should never be the primary tool for analysis in the field.

I should add that when we asked people to fill out questionnaires, we went over the questionnaire with them, but we left them alone when they began to fill it out; we waited until they signaled to us that they had finished. We let them know beforehand that they would put the questionnaires into a large manila envelope that was full of other questionnaires. This practice

showed them that we meant what we said when we said the questionnaires were anonymous.

Interpreting the Results

The results of a questionnaire should address one or more hypotheses. A *hypothesis*, as mentioned earlier, is a statement that assumes a causal relationship between two or more variables, with at least one variable being the independent variable and the other variable(s) being the dependent, or *outcome*, variable. In the case of anthropological research, as mentioned many times before, the hypothesis should follow logically from the previous, more descriptive research tasks such as freelists, general interviews, pile sorts, and the like.

We had expected that there was a general relationship between cultural models of romantic love and sexual behavior. This had been the hypothesis that was written into the grant proposal before data had been gathered. Our freelist and pile-sort data confirmed that there was a bimodal perspective of romantic love—it was seen as highly fanciful and temporary on the one hand, and enduring and friendly on the other. These two perspectives seemed to imply not two distinct prototypes of romantic love, but a natural progression of romantic-love relations from poetic and highly romantic to more realistic and enduring. Remember, however, that I had originally discounted the notion of romantic love as fanciful and "not real." I assumed, instead, that there were some Lithuanians who were highly romantic and some who weren't, and that those who held a romantic view of love were most likely to engage in unsafe sex, while those who were more pragmatic would not.

Our questionnaire was based on the above hypothesis and consisted of three parts: the first asked questions about demographics and love status; the second part consisted mostly of scale questions intended to get at the individuals' beliefs or ideology of romantic love—their mental maps, if you will; and the third section focused on behavior. (A copy of the questionnaire is in appendix A.) We used a four-point scale for the second part. From the questions in section 2, we created two indexes: one for

romanticism and one for pragmatism. You create an index by combining questions that you think measure the same underlying concept and add up the scores for those questions to create an overall index for your informants. List 5 and List 6 contain the belief statements we used to create the romantic index and the pragmatic index, respectively.

List 5. Belief Statements for the Romantic Index

"To burn with love is to be raised to heaven."
"I will do anything for the person I love."
"Sex without love leaves sadness in its wake."
"Romantic love is the supreme happiness of life."

List 6. Belief Statements for the Pragmatic Index

"Love is lust concealed."
"To burn with love is to be cast down to hell sooner or later."
"Only the immature love at first sight."
"Romance without finance is no good."

We assumed that people who scored high on the romantic index would score low on the pragmatic index. Thus, if we had two different types of people (romantics and pragmatists), we expected that their sexual choices (particularly with regard to safe and unsafe sex) would differ. This seemed eminently logical. We presumed that love meant no condom, since love implies monogamy and, if not that, at least that desire overwhelmed rationality. We were very surprised to find that neither index was significantly related to condom use. Our hypothesis was disproved. After a few morose days, we got together again and decided we could make lemonade out of our results. We decided to find out why there was not a correlation between type of personality and sexual behavior.

We started to consider the relationship between pragmatic and romantic people (i.e., those who scored high on the romantic index versus those who scored high on the pragmatic index). Our expectation was that highly romantic people should score low on the pragmatic index and that highly pragmatic people should, likewise, score low on the romantic index. We assumed that people were either romantic or pragmatic but not both.

According to our expectations, romanticism and pragmatism should be in an inverse relationship. We tested this. We used a five-point scale; if someone scored 5 on all the questions in the romantic index, then he or she would score a total of 20 points. We had assumed that if someone had marked 5 for all the romantic questions, he or she was likely to mark 1 or 2 for the pragmatic questions and thus score somewhere between 4 and 8. In figure 6, the red circles represent informants, and the number of spikes coming out of a circle represents the number of people at that point. You can see that on the pragmatic scale, most of the informants ranged between 7 and 12 points; while on the romantic index, most ranged between 12 and 17 points. If our assumptions were correct, then the markers on the graph should have been distributed diagonally from the left-hand top corner to the right-hand bottom corner. This pattern should have been manifested by the best-fit line that represents the overall relationship between the two indexes. However, the results displayed in figure 6 were totally different from our expectations.

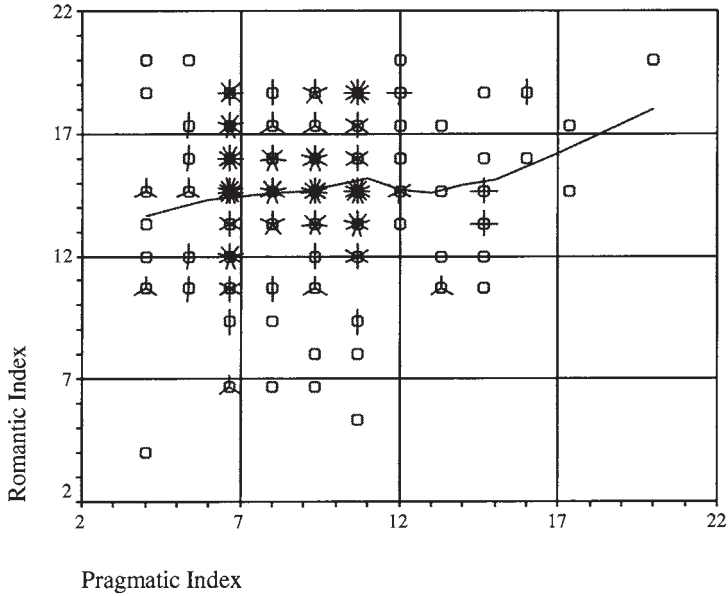


Figure 6. Relationship between romanticism index and pragmatism index

The graph does tell us that Lithuanians (in our age category) are more romantic than they are pragmatic with relation to the questions we asked. However, there seems to be no inverse correlation between the two indexes; indeed, if anything, there is a slight positive correlation—note that in the upper right-hand corner, the two indexes increase together. Lists 5 and 6 and figure 6 indicate that there is no relationship between pragmatism and romanticism, so that people can be high (or low) on both indexes. Indeed, on further reflection, this fits with the model of romantic love inferred from the freelist and pile-sort data, since romanticism was associated with fantasy and pragmatism with the real world, and romantic love is differently manifested depending if one is in the early stages of romantic love or in the later stages. Romantic love is not tied to a personality type, but rather it is dynamically linked to the development of a romantic-love relationship. In short, we did find out that ideology (that is, being a romantic or a pragmatist) is not a predictor of sexual behavior (i.e., practicing safe or unsafe sex), and that we need to look at other factors.

The results may seem disappointing to the reader. Indeed, they were to me. But—and this is important—the results were not what I had predicted or expected, and this suggests that our hypothesis was falsifiable, not only as a linguistic statement but in deed. Second, the absence of a confirmation to our hypothesis made us look deeper than we otherwise would have into what was going on and what other kinds of factors affect sexual behaviors. Third, while the results were not to our liking, they are congruent with the previous data. We have a single cultural model of romantic love but if, as we have found out, romantic love is not just a psychological state but also a social relationship, then it makes sense that it is not explainable solely in terms of personality types. Our results thus strengthen the cultural model of romantic love that Lithuanians have been describing for us all along.

Pitfalls of Questionnaires

Below are some of the main pitfalls of using questionnaires. The pitfalls can be divided into three main groups: those that can

arise when writing the questionnaire, those that can arise when administering the questionnaire, and those related to the limits of analysis.

How to Avoid Pitfalls in Writing the Questionnaire

1. Be clear about the objectives of the questionnaire.
2. Avoid unnecessary questions. Questions should be worded clearly and in a language that your informants can understand.
3. Make sure your questions are about subjects that the informants are knowledgeable about and can respond to.
4. Make your questionnaire as short as possible.
5. Never have "double-barreled" questions (those with the conjunctions *and* or *or* in them).
6. Put your questions in a logical order, with threatening questions last.
7. Make sure each option on the scale is clearly ranked so that they do not overlap.
8. Avoid loaded questions in which the "right answer" is implied in the wording.

How to Avoid Pitfalls in Administering the Questionnaire

9. Never forget to pretest the questionnaire.
10. Remember to use the sampling frame for distributing questionnaires.
11. Dress appropriately and have lots of things on your person that symbolize your status as a researcher (e.g., clipboard, name tag).
12. Rehearse introductory remarks, and make sure they include assurances that participation is anonymous and participants can quit whenever they want.
13. Encourage participants to feel that what they are doing is intrinsically good and valuable.
14. Guarantee anonymity by never requesting names or other personal identifiers.

15. Have the respondents themselves place their questionnaires in an envelope or other container that already contains a batch of completed questionnaires.
16. Try to recruit people when they have time to complete the questionnaire and not when they are in a hurry.
17. Go to places where people are not in a rush and which are distributed over the field site (e.g., parks in all parts of an urban area) and not just one area of town. Sample settings, in other words.

How to Avoid Pitfalls Related to the Limits of Analysis

18. Be aware that questionnaires are always decontextualized, and real life is never decontextualized! As a result, there is often a disjuncture between questionnaire responses and what people actually think or do.
19. For field-research questionnaires, be sure the questionnaire has a supplemental and not a primary analytical function.
20. Be aware that what people say on a questionnaire does not represent a preference frozen in time, but a response subject to change over time and context.
21. Be aware that questionnaires are always contingent upon, and limited in, their ability to predict what people think and do.

Notes

1. There is controversy over the use of the term *native* since it has a pejorative connotation of "primitive." However, I don't know of a better alternative, and it is simply meant to refer to those people who are members of a culture.

2. I have been on my university's institutional review board, and seldom do we receive a survey where the researcher provides anywhere near an accurate estimate of how long the survey will take. This really irks me because it is dishonest and can make the participant feel

like he or she has been "taken for a ride" and will be less likely to volunteer for subsequent surveys.

3. Russ Bernard (2006, 282), the dean of methods in anthropology, states that "general socioeconomic and demographic questions" should be put at the end of the questionnaire because they "are threatening to many people who fear being identified." But if in the instructions you have noted that questionnaires are anonymous, this worry is alleviated. Also, informants expect these questions to come first and some will think they have "been had" if they come at the end.

4. Bernard discusses this formula and reliability tests in more detail (2006, 331–35).

6

Consensus Analysis

I have chosen to have a separate chapter for consensus analysis even though it is a method for analyzing questionnaires. The reason for this is that consensus analysis is *the* method invented by anthropologists and is specifically designed to analyze whether a pattern of responses represents a cultural domain, or whether a sample of respondents are from the same culture. The goal of anthropology, after all is to make statements about a culture or, more ambitiously, about CULTURE writ large (i.e., human culture).

Romney, Weller, and Batchelder (1987) wrote the first article that described cultural consensus theory and method. For them, *culture* was shared knowledge about some cultural domain(s). Furthermore, they were more interested in the cases—that, is the people—than the questions themselves, because it is people who have and who share culture, not the questions. This meant that in a two-mode, case-by-variable matrix, the profiles of cases were compared (the rows) instead of the variables (the columns).

To summarize: *cultural consensus* is a theory of culture. It is a theory of culture as equivalent to shared knowledge and declares, without qualification or hesitancy, that the locus of culture is the individual and is not in artifacts or in groups. A strength of this theory-method (it is both) is that variation (i.e., heterogeneity) is expected and accounted for; sometimes, a minority rather than

a majority of respondents to a question are indicated as the representatives of a cultural norm. However, overall there should be some broad agreement among the members of a culture, with individuals varying in cultural knowledge. Just as in a test, some individuals score better than others; but, unlike with a test, all the members of a culture should share most of the relevant information associated with cultural domains (plural is intended!). That is about the gist of it.

You can see why cultural consensus is important to anthropologists. Unlike other statistical methods, which tend to measure relationships between items with a focus on finding significant *differences* across variables, consensus analysis seeks to measure relationships between people, with a focus on finding significant *similarities* among them.

Below, I will discuss some of the claims and criticisms of consensus analysis; I will then describe how one does it, and read a consensus-analysis output; third, I will conduct a consensus analysis on my own data, and let the reader follow the decisions I made (feel free to disagree).

Claims and Criticisms of Consensus Analysis

Consensus analysis relies solely on survey methods, and therein lies the rub. Consensus analysis is subject to the exact same limitations that we mentioned in chapter 5 on questionnaires! There have been substantial and well-placed criticisms of attempts to construct cultural models by relying solely on survey instruments (Auger 1999). Such criticism is directed not only at the obvious problems of reductionism, but also at the theoretical axiom of cultural consensus theory in particular and cognitive anthropology in general, that culture is to be found only in the minds of individuals and is comprised of mental constructs.

Even some cognitive anthropologists have been critical of survey methods as the sole or primary means of eliciting analytical data for constructing cultural models. For example, Garro (2000), in her comparison of survey and interview data, found that the interpretation of survey data does not help us under-

stand or analyze the "dynamic interpretive processes that tak[e] form in cultural settings" (313). I agree with this criticism of consensus analysis but would refer the reader, once again, to the Eastwood axiom: "A man's got to know his limitations." Consensus analysis allows us to posit the knowledge parameters of a model of culture. Our next step would be to take this analysis as a hypothesis and then to test its *ontological* (i.e., real) status in the context of everyday life. Garro is perhaps more qualified than anyone else to criticize consensus analysis because she actually compared the results of a consensus analysis with interview material and found the two to be very different beasts. She notes that consensus theory formulates cultural knowledge as "analogous to performance on a cultural test" (312). We all know that cultural knowledge, when put into practice, is more complicated than choosing an option on a multiple-choice question. Yet the pattern of such responses does provide an analysis that is more complicated than a test. Consensus analysis allows one to state with some confidence that if the agreement among informants on a number of questions is high enough, then the underlying reason for that agreement is that the informants share the same cultural knowledge. Having noted these words of warning, let us see how consensus analysis actually works. Below I describe the steps for doing consensus analysis on ANTHROPAC. The same sort of analysis with pile sorts can be done using most statistical software, though I do advise readers to download the free version of ANTHROPAC if they are interested in doing their own consensus analyses. The important point is that one understands how consensus analysis works, rather than the mechanics of inputting data.

How to Do Cultural Consensus

First, of course, you create a questionnaire. Then you put the data into the following form, which you can do in Word or any other program, as long as you save it as an ASCII or text file so you can import it into ANTHROPAC. (You can also use factor analysis, in a pinch).[1]

List 7. Format for Entering Data into ANTHROPAC

```
DL nr = xx, nc = yy
row labels: a,b,c
col labels: d, f, g
data:
1 2 1 2 3 5
1 2 1 3 3 5
1 ? 1 ? 3 (question mark is placeholder for missing value)
```

When you are done entering the data, import the file into the DL option for importing into ANTHROPAC. Then simply take the imported file and go to Tools > Consensus Analysis and enter the file. You will receive three default output files: (1) comp—which tells you if the data meets the "one culture" requirements; (2) agree—which is an agreement-by-agreement correlation matrix between your informants; and (3) key—which is the "answer key" and tells you what the culturally normative answers are for each question. The key can be looked at as the cultural model—the answers are not simple means, but are derived from weighing the relative cultural competency of each of the informants. Each of these outputs is discussed below. But first, a brief discussion is in order regarding how these numbers are arrived at and what they mean.

Once the data is entered and imported into the ANTHROPAC environment, you simply run the data through the consensus-analysis module. Table 8 shows what the first output looks like.

This is a "good" example of consensus analysis because it shows that there is one factor that explains the overall pattern of answers on a particular questionnaire. Consensus analysis typi-

Table 8. Example of the first part of a "good" consensus-analysis output

Factor	*Values*	*Percent*	*Cum%*	*Ratio*
1	4.483	66.0	66.0	3.371
2	1.200	20.0	86.0	1.396
3	0.500	14.0	100.0	—

cally shows three factors. The first factor is the significant one and usually stands for "culture." A *factor* is some underlying concept that accounts for some percentage of the pattern of answers on a questionnaire. This can be conceptualized as follows: Suppose you have three people and three questions (with four options per question), and the pattern of answers looks like this:

Person 1	a	b	c
Person 2	a	b	d
Person 3	a	c	d

You have nine possible answers, and for seven answers there is agreement (i.e., the three *a*'s, the two *b*'s and the two *d*'s). Thus, factor 1 accounts for 7/9, or 78 percent, of the answers; factor 2 would be some factor that accounts for person 3's answer of *c*, and it accounts for 1/9, or 11 percent, of the answers; and factor 3 would be some factor that accounts for person 1's answer of *c* on the third question, and it also accounts for 11 percent of the answers. The *eigenvalue* is the sum of the squared loadings (more on loadings below) on each factor. (In this case, $1.0 + .67^2 + .67^2 = 1.938$ would be the eigenvalue.[2])

To return to our example above, the eigenvalue ratio should be a minimum of 3.0. If it is below this, then, by convention, there is not enough overall agreement between people to say that they constitute a culture. It may in fact be that some respondents are "outliers" or that there is no consensus on a few questions. Table 9 gives an example of a "bad" consensus analysis.

Just below such a result you will typically receive the following warning: "*Note:* It would be better if the first factor accounted for more than three times the variance of the second factor."

Table 9. Example of the first part of a "bad" consensus-analysis output

Factor	*Values*	*Percent*	*Cum%*	*Ratio*
1	1.63	40.0	40.0	1.86
2	1.32	32.0	72.0	1.30
3	1.01	28.0	100.0	0.95

FACTOR 1 is displayed in the output as a percentage of the agreement between informants. If FACTOR 1's percentage is listed as 81.0, then 81 percent of the questions you asked were answered in agreement (this is good.) It implies that people share the same cultural knowledge and draw on this knowledge to arrive at the same ("correct") answer.

The RATIO column, as noted above, should show a figure of greater than or equal to 3.0 to be considered worthwhile. A value of 3.0 means that FACTOR 1 is three times greater than FACTOR 2; this means that FACTOR 1 accounts for the range of responses by all the informants three times more than does FACTOR 2, and thus one can presume that the reason for this high level of agreement is due to sharing the same cultural knowledge. If the eigenvalue ratio is below 3.0, you are probably having

- Problems with the phrasing of your question (i.e., people vary in their interpretation of it);
- Problems with the cultural domain of your informants (e.g., it's too broad, they're not from the same culture).

The ratio shows how much more of the data FACTOR 1 explains than FACTORS 2 and 3. For example, if FACTOR 1's ratio is 6.5 and FACTOR 2's is 3.5, then FACTOR 1 accounts for 6.5 times *more* of the agreement among respondents' answers than do FACTORS 2 and 3.

The output for the estimated knowledge of each respondent is presented just after the above eigenvalues output. Table 10 shows what this looks like.

As the title suggests, the numbers represent the estimated knowledge, or loadings, of each individual. **Loadings** refer to the degree to which one individual's overall responses (a coefficient) agree with the overall factor (a measurement model). Thus, the higher the loading, the more that person's vector (or answers or "profile") correlates with this cultural factor. Hence, a loading represents the relation of the pattern of answers of one individual to the aggregate pattern of answers. Put another way, a loading is the score that represents the fit of one individual's profile of answers to the aggregated profile of answers. Think of

Table 10. Output of "estimated knowledge of each respondent"

1. John	0.55
2. Amy	0.77
3. Bob	0.41
4. Inga	0.79
5. Renatas	0.29
6. Jack	0.52
7. Tom	0.57
8. Art	0.42
9. Alan	0.34
10. Rick	0.47
etc.	
Average:	0.694
Std. Dev.:	0.228

your questionnaire as similar to, but not identical to, a quiz. Renatas's estimated knowledge is .29, which is roughly equivalent to receiving a 29 percent on a culture quiz. If you were going to interview a sample of respondents who completed the questionnaire, you should choose Inga, who scored a .79, since she is more representative of the culture than is Renatas.

However, the questionnaire is not equivalent to a quiz, for three reasons: (1) a quiz has assumed right answers for every question, so that a person can score 100 percent; (2) the "correct" answer in a questionnaire is a product of respondents' answers, and thus, while a score of 100 percent is theoretically possible, it is not probable except for the most trivial questions (e.g., "How many days are in the week?"); and (3) unlike a quiz, a cultural questionnaire can traverse a number of cultural domains.

Below the estimated knowledge ranks of your informants are presented the average and the standard deviation. The *average* is the mean of all the cultural quiz grades (i.e., all the percentages added up and divided by the number of informants). The *standard deviation* shows the deviation from the mean (average) of the responses of the individual. The standard deviation should be 20 percent of the mean. The smaller the standard deviation, the less the dispersion around the mean. This means that most

Table 11. Questionnaire responses and answer key

QUESTION 1: LUST

Response	*Frequency*	*Wtd. Freq.*	*Prob. Correct*
1.0000	58	52.69	0.000
2.0000	107	112.31	1.000

(answer) KEY: Estimated Correct Answers for each Question

Lust	heaven	hell	sad . . .
1	3	4	5 . . .

people agreed on what the culturally "correct" answer was and did not "deviate" from that answer. A low standard deviation signals high interinformant agreement.

In ANTHROPAC, "DIAGNOSTICS: loading on 2nd factor" is shown right after the estimated knowledge of respondents on FACTOR 1. Skip this entire part, since it should represent insignificant results. The remainder of your output shows the distribution of responses to each question in your questionnaire. An answer "KEY" is provided after the distribution of responses for each question is presented. An illustration of both, the responses to a question and the answer KEY, are presented in table 11.

"Response" corresponds to the order of the multiple-choice answers. "Frequency" refers to the distribution of answers for each response. "Weighted Frequency" takes into account not just the percentage of people who responded "correctly," but also the loadings of all respondents. The loadings, remember, are a measure of the competency of individuals (recall that Inga scored .79 and Renatas only .29). If all the highly competent people marked response A and the low competency people marked response B, then when the loadings are included in the analysis, response A might have a higher probability of being the correct answer, even if the majority of people marked response B. Got that?

Aside from the eigenvalue ratios, the KEY is perhaps the most important output in consensus analysis because it shows the culturally normative answers. It should be read as a profile rather than as a series of discrete answers.

A final output that is of importance but which is not displayed in the consensus analysis output is the AGREE output. The AGREE output is the respondents' agreement-by-agreement matrix. It is important because the theory behind consensus analysis is that culture is in people not in answers; hence, you want to see how the informants compare with one another on their responses to the questionnaire. You can do this by taking the AGREE file and running it through MDS or hierarchical clustering. Both these outputs, discussed previously, will show you how individuals compare with one another. If there is a high eigenvalue ratio (say 6.0), then the respondents in an MDS should be tightly clustered. If there is a low eigenvalue ratio (e.g., 2.0, suggesting that there is no cultural consensus), then they should be dispersed across the MDS. When you have a low eigenvalue ratio it is useful to run MDS on the AGREE file to see if the low consensus is a result of some demographic features of your sample. For instance, if the MDS shows that males and females tend to form separate clusters, then you can run consensus analysis on just males and on just females and show that in fact males and females have and use different cultural knowledges with regard to your questionnaire!

Consensus Analysis on Lithuanian Conceptions of Romantic Love

Below I will go through the actual sequence of steps I used to analyze the Lithuanian data with regard to some of the questions we asked. I will use the same fourteen questions that were discussed in the questionnaire chapter, but with a four-point scale that goes from 1 (*strongly disagree*) to 4 (*strongly agree*). For these fourteen questions, we collected data from 233 Lithuanians. For the purpose of this analysis, we will just see if there is an overall cultural consensus on these questions, and I will only present the eigenvalue data. The data had been in SPSS format, so I imported it into an ASCII format and inputted it into ANTHROPAC. (There were no problems, though I had to add the

Table 12. Initial consensus-analysis results

Eigenvalues				
Factor	*Values*	*Percent*	*Cum%*	*Ratio*
1	34.805	56.8	56.8	2.343
2	14.853	24.2	81.0	1.279
3	11.613	19.0	100.0	
	61.270	100.0		

Note: It would be better if the first factor accounted for more than three times the variance of the second factor.

basic ANTHROPAC information—i.e., DL number of columns, etc.). My initial results were as shown in table 12.

Damn. So what was the matter? I first inspected the estimated knowledges of my informants and saw that 15 of the 233 had negative loadings (i.e., they had a negative correlation, relative to the majority of respondents, for each question). The average and standard deviation were as follows: average, 0.354; standard deviation, 0.154. Recall that the average should be three times rather than twice the standard deviation. (If you divide the average by the standard deviation, you get about the same as the eigenvalue ratio!) I decided to get rid of them and run ANTHROPAC again. But this had no effect on the eigenvalue ratio. (I didn't think it would, but I did think it would raise the ratio for factor 1 slightly.) I then looked at the questions. Now herein lay the rub. Let's look at the typical distribution of answers in two questions, and you will see what the problem was.

There is clearly no cultural consensus on question 1, "Love is blind." Some people say yes and some people say no (more on this later). Most seem to say yes (94 + 99 = 193/233 said "agree" or "strongly agree"). Also note that between 3 (*agree*) and 4 (*strongly agree*), the informants were about evenly split, with the "strongly agree" answers weighted more, for a probability of .999 (meaning that those who answered "strongly agree" also had a higher average "estimated knowledge" score than those who marked 3). Nevertheless, there was no way we were going

Table 13. Distribution of answers to two questions

QUESTION 1: "Love is blind."

Response	*Frequency*	*Wtd. Freq.*	*Prob. Correct*
1.0000	24	17.70	0.000
2.0000	70	77.41	0.000
3.0000	94	105.72	0.001
4.0000	99	109.23	0.999

QUESTION 7: "I'll do anything for my lover."

Response	*Frequency*	*Wtd. Freq.*	*Prob. Correct*
1.0000	4	1.07	0.000
2.0000	32	18.51	0.000
3.0000	98	104.20	0.001
4.0000	99	109.23	0.999

to get cultural consensus. However, it is possible that the difference between 3 and 4 is not so significant—after all, they both signify agreement with the statement that "love is blind." However, there were also 24 who marked 1, which indicates *strongly disagree*, and 70 who marked 2, which is equivalent to *disagree*. I decided to just throw out this question because there was no consensus, no matter how I manipulated the damn data.

Let's look at question 7, "I'll do anything for my lover." Now here there is clearly some consensus: 197 Lithuanians out of 233 (or 84.5 percent) agreed with this statement. I decided that in terms of a general cultural model, we could dichotomize our responses by combining answers 1 and 2 as a single "disagreement" response, and 3 and 4 as the "agreement" response. After we recoded all the answers (1 and 2 = 1 and 3 and 4 = 2) and eliminated all those questions for which there was clearly no consensus, I ran another consensus analysis and obtained the results shown in table 14.

Finally, we managed to obtain an eigenvalue ratio of 3+! Our answer KEY was as follows:

Lust	Sexsad	Suffer	Satract	Anything	Think	Fools	Strong	Sovesad
2	2	2	2	2	2	1	2	1

Table 14. Consensus analysis on our new-and-improved data set

Factor	*Values*	*Percent*	*Cum%*	*Ratio*
1	66.823	63.4	63.4	3.238
2	20.639	19.6	83.0	1.151
3	17.924	17.0	100.0	
total	105.386	100.0		

1. Love is lust concealed.	Agree (2)
2. Sex without love leaves sadness.	Agree (2)
3. Love ends up in suffering sooner or later.	Agree (2)
4. Sexual attraction is necessary for romantic love.	Agree (2)
5. I will do anything for the person I am in love with.	Agree (2)
6. I constantly think about the person I am in love with. (when I am in love)	Agree (2)
7. Love makes fools of us all.	Disagree (1)
8. My love will make my partner a stronger and better person.	Agree (2)
9. Love without sex leaves sadness.	Disagree (1)

You may disagree with dropping five of the fourteen questions, or be wondering about the honesty of manipulating data until you get the answer you want. I do not think this practice is dishonest as long as you inform your readers of what you are doing. We still have nine questions left, on which there is significant consensus among Lithuanians. Furthermore, these answers correspond with and strengthen our freelist and pile-sort analyses. The five that they did not are the following:

List 8. Questions for Which There Was No Consensus

1. "Love is blind."
2. "To be in love is to be in heaven."
3. "Romantic love is the supreme happiness of life."
4. "Romance without finance is no good."
5. "Love is important to me because it makes me more self-confident."

One can investigate both the questions for which there was consensus and those for which there was no consensus. But clearly there was consensus on the relationships between love and sex, love and obtrusive thinking, and love and altruism, and on the temporary nature of romantic love.

In summary, consensus analysis, if used right, is a very useful method for investigating and discovering the elemental foundations of a cultural model. However, as Linda Garro (2000) has pointed out based on responses to a questionnaire; it is not "culture" per se. Culture is always contextualized; questionnaires have little to do with context and everything to do with the answer that seems reasonable to a person at that time and when that person is in a hurry. Such answers are not to be discounted, because there has to be a reason for a pattern emerging when many people answer a set of questions with multiple-response options. The greatest likelihood when people answer questions for which they have four options is that the answers will be distributed randomly, so that each option will be chosen approximately the same number of times (i.e., if there are 100 informants, each of the four options will be chosen about 25 times). The fact that we get a vast majority answering one way is unlikely to happen by chance. The pattern of answers (that is, the profile or vector of answers for respondents) and the overall profile (which is the "answer key") mean something. To find out what it means, we have to look at all the data we collected, from freelist to interviews, and not just at the consensus analysis. In other words, from a fieldwork perspective, the "answer key" is part of the evidence we use for investigating the cultural understandings of a particular cultural domain or theme (in this case romantic love); our next step leads us to obtain and investigate more contextualized data, in this case through long interviews.

Pitfalls of Consensus Analysis

The pitfalls of consensus analysis have been discussed in both the questionnaire pitfalls section and also in the first section

of this chapter. One measure that you should, by all means, take—and this goes for all questionnaires—is to make sure that hard copies of your questionnaire are numbered, and that those numbers correspond with the numbers in the database. Thus, the hard copy of questionnaire 1 is also recorded as questionnaire 1 in your database. This correspondence is very important because you might need to return to the physical copy of the questionnaire, to input additional data and make sure there is a correspondence between all the databases extracted from one physical copy. Oftentimes there is other data on the questionnaire, like comments or statements that people have made. And if you are not sure if the data was recorded right, then you can go back and double-check. We lost much valuable data by not knowing what textual material went with which questionnaires.

Notes

1. You need not be limited to ANTHROPAC. You can use any program that has factor analysis; but the focus should be on representing variation among respondents on that single factor.
2. In fact, the math is more complex than this; but, conceptually, the above is appropriate.

7

Long Interviews

Interviews, like most human activities, have an "action plan" (Werner and Schoepfle 1987, 391). There is an early-contact phase, a preparation for the eventual interview, a contact at the time of the interview, a preinterview warm up, the interview proper, and a postinterview. Each of these phases is important. I will discuss them in sequence below. The second section of this chapter considers the interview process in greater depth, including the problem of transcribing and coding interviews. In the third section, I focus on the use of my own interview data for analyzing Lithuanian conceptions of romantic love and building a model of romantic love. Recall that each step, from freelisting to interview, is purposefully designed: the freelist to get familiar with the key concepts of a cultural domain; the pile sort to give meaning to that domain; the questionnaires and consensus analysis to test hypotheses and to see if the responses to the questionnaire do constitute a cultural domain; and the interviews to see if the findings, up to this point, actually map onto real-life case histories. Interviews are designed to recreate complex behavioral events, as well to elicit interviewees' commentaries on those events.

Preparation for an Interview

To rush into an interview unprepared is usually damaging to its success. There are at least three aspects of preparedness that are important: first, you should have a checklist of topics that will be discussed; second, if you are using a tape recorder or other recording device, you should check the equipment; and, third, the ethnographer must prepare for the "business" part of the postinterview.

The interviewer should have a guide ready for each interview and use the same guide. This creates a necessary structure for all the interviews. However, one should also be flexible enough to ask questions not on the interview guide and respond opportunistically to unanticipated information.

Equipment Check

Nothing is more embarrassing, and makes you look like more of a fool, than not having equipment ready, or having equipment that fails to work. A simple rule of thumb: the more complex the equipment, the more that can go wrong. It is important to carry two of everything when possible. Don't skimp on batteries for your tape recorder (if you are using one), and always have new batteries at hand. The best place to interview someone is in your office, or else in some neutral place. If you have to, then interview your interviewee in his or her house. The problem with interviewing at the informant's home is that whenever the phone rings or the children come home, that's the end of your interview. You can't control the environment; and it is an environment designed to interrupt, to beckon your interviewee. You are in charge, and you are paying; but in the informant's house, that means nothing: you are a guest. Avoid this if possible. If not, then don't worry about it. You shouldn't worry about what you can't control.

Preinterview Warm Up

There is or should always be a warm-up period before the "real" interview. Repeat: always have a warm-up period. The

only exception is if you have interviewed the person before, and he or she is already an "old pro" at the interview process and eager to continue where you left off last time.

During the warm up have fun; don't try to be too efficient. Talk about the weather, or about anything that seems chatty and simple without being contrived. As with any sports activity, there has to be a warm-up period. The person needs to get oriented to talking and you to listening. Ask how the informant's day was, and try to get more than an "all right." People want to talk about themselves, so you just have to give them the cue that you like listening to what they have to say. Smile and nod, but don't laugh or smile when you don't feel like it; be natural, but elaborate positive feedback, just a bit. When you feel like it's time to start the interview proper, then let them know; say something such as "Are you ready?" If the informant nods assent, then turn on the tape recorder and start. If not, find another person to interview.

The Interview Proper

Once the interview starts, it should unfold somewhat like a conversation. It is not a counseling session. You are not a counselor or psychologist. Repeat this to yourself should you find yourself inclined to offer advice, or if you feel that the interviewee is putting you in that role. At all costs, *avoid* donning the "expert in love" hat (or whatever the theme of the interview is). Remember, it is a conversation. The difference is that psychologists are experts; they take on that role and never talk about their lives or their other patients—the client does all the revealing. The psychologist is trained, and the culture provides a framework for a client-counselor context. For you to take that on is inappropriate, but often seductive or easy to fall into. I've repeated myself too often here for a reason: this is the single biggest pitfall of interviews, especially if you don't recognize it. Hence, rule number one in interviewing: "The interviewer is the novice, and the interviewee is the expert on the subject."

It is a conversation, and in a conversation you say things like "Hey, that happened to me, too," or "A friend of mine had that

happen and he did X." Thus, it is your job to make comments and participate in "naturalizing" the interview. However, the interview is not about you; don't you do most of the talking. You don't want to be transcribing the tape and hearing yourself speak most of the time. And you don't want to be cutting the other person off, unless he or she has been getting "off subject" for too long. But give them some leash to wander. Just remember you have the other end of the leash, and you need to pull them in sometimes because you only have an hour. Rule number two, then, is "An interview is a conversation on a theme."

Postinterview Check

Even though there is usually some brief socializing after the interview (a kind of warm *down*), the key to the postinterview is paying the informant. No interview should go without some form of payment. You can get away with interviewing some people without paying them; but it is exploitative, and you quickly run out of credit. It's true that most of the time, particularly with strangers, you get what you pay for. So pay your informants a wage that will encourage them to do a "good job." Make sure you have a time that is convenient to them. If it's an hour interview, make sure you leave plenty of time for payment at the end. And even though you may have the option of going substantially longer than an hour, be disciplined and cut it off. You can interview the person some other day. Have the money ready, and get a receipt. Put the receipt in a box where you put all the receipts. We are now ready to discuss the interview process, including the transcribing and coding of interview material, in more depth.

Interviews, Transcribing, and Coding

I recommend that, if at all possible, you interview the same person three times, once per week or so, and then a fourth time about six months or a year later.

The First Interview

The first interview should be a very basic interview. No matter what the topic, I usually begin by asking general life-history questions. Key in on important life events; but if these should be too intimate, don't explore them too much—store them in memory or jot them down in a notepad, then refer to them, should you want, in the second interview. Avoid asking informants about intimate details of their lives in the first interview.

In the first interview, I will inquire into such life "markers" as the informant's first kiss; the first boy- or girlfriend; important role models; and the influence of peers, books and the media; but *not* the first time he or she had sex. Also, I will ask about the interviewee's general theories about love relations (or whatever the topic may be). They are often flattered that you are interested in their analyses of the events of their lives: it makes them feel part of the analysis process, which they are, rather than simply feeling like people being paid to expel information. Usually by the end of the first interview, interviewer and interviewee have begun to establish a relationship and to feel comfortable with the give and take of the interview situation; and that is one of the main purposes of the first interview: to establish rapport.

The Second Interview

After an initial warm-up period, this is when you "go for the gusto" and ask more intimate questions. You want context, actions, interactions, feelings, rationales, and explanations of events; in short, you want thick-descriptive scenarios with the interviewee in the central role of protagonist. You want the interviewee to describe his or her **primary experiences** and invoke them in as much rich detail as possible. The interviewer should focus on teasing out the thick-descriptive parts of the scenarios whenever the interviewee's descriptions are too thin.

One encourages the interviewee by using a variety of probes. A **probe** is any kind of cue that encourages the informant to keep speaking. Probes consist of nods; smiles; "uh-huh"; "ahh . . . that's interesting"; attentive, open body language; and so on.

Because of the subject matter of the second interview, the relationship between interviewer and interviewee becomes more intimate; both the interviewer and interviewee are revealing intimate details of their lives to each other (the interviewee much more so than the interviewer!). Consequently, I posited rule number three for interviewing: "Whenever possible, the interviewer and interviewee should be of the same sex." I have interviewed female informants and seldom have had problems with the informant themselves. But I have often had problems with colleagues who thought, perhaps rightly, that it was inappropriate and wondered (wrongly) at my motives. It created a lot of unnecessary hassle, though I resented having to stop interviewing women because of "political correctness" issues. Nevertheless, I realized that there is always some sexual tension. This came to my attention once when a female informant who was a stockbroker came to her second interview wearing a miniskirt. I didn't ask her why she was wearing it, and it may have had absolutely nothing to do with the situation; but after that, I decided I would hire a female assistant to interview women. Furthermore, there were issues I could explore with male interviewees that I did not feel comfortable exploring with women. Regardless of the circumstance, it is just better that the interviewer and interviewee be of the same sex, even when the topic of the research is not particularly intimate. One qualifier: in most circumstances, this rule does not apply if you are only doing one interview with the person.

The Third Interview

In the third interview, I focus on the decision-making process, and on the links between thoughts, feelings and actions. In first interview we obtained the basic life history of the informant and some ideas about how he or she thinks; in the second interview we learned about some key behavioral events in the informant's life; now we want to explicitly link thought to action. Take a particular behavioral event discussed before and try to "unpack it" cognitively. That is, attempt to find out what caused the informant to behave in the way that he or she did. Oftentimes,

one hears statements that refer to cultural imperatives, such as "Well, it wouldn't be right if I didn't do what I said I would"; "I loved her and would do anything for her"; "To be a Lithuanian means being emotionally strong but irrational"; and so on. You want to discover if such statements have directive force or are just verbal banter. **Directive force** is a key term used to refer to the force a particular motivation has to instigate behavior. (See Quinn and Strauss, 1992, and D'Andrade, 1992.)

The third interview is one where you work with the informant in order to figure out why things happened as they did. You try and tease out the relationships between motives, personality, and beliefs, and, as noted, cultural imperatives and actions. In this interview, the two of you are working together as collaborators on a project of discovering the reasoning and feelings that gave directive force to the behaviors.

In sum, each interview has a distinct function: the first interview is to develop rapport and to elicit basic information; the focus of the second interview is to obtain rich, thick-descriptive information, and it also tends to create a sense of camaraderie and intimacy between interviewer and informant (albeit transitory); and the emphasis of the third interview is the decision-making process, which makes this interview a collaborative project between informant and researcher.

Transcribing Interviews

The fourth rule of thumb is "Whenever possible, transcribe your own tapes." Ed Hutchins, in his book *Cognition in the Wild* (1995), noted that he could not find adequate transcribers. Mishler (1987) found that there was a distinct lack of correspondence between the guide sheet (of questions he was to ask interviewees) and the interviews themselves; he also noted a similar lack of correspondence between tapes and transcriptions of tapes.

Things get deleted that are deemed unimportant. The transcriber's attention wanders; he or she gets bored and makes decisions at variance with the instructions (even when the transcriber and researcher are one and the same!). Things happen. It is inevitable, but (of course) you should keep such losses to a

minimum. The ideal way is to have the transcriber play back the tape with the researcher present to see what is missing. If this is not possible, and you are hiring students to do the transcriptions, remember: you get what you pay for. Also, students are busy; they may have good intentions, but they are used to multitasking and this is not a "real job." Always explain transcription as a team project, noting that the research is only as good as the transcription by the student. Ask them to make comments in the transcriptions themselves. Make sure that they use the "comments" function available in most word-processing programs. Increase the transcriber's sense of empowerment in the success of the project itself.

It should take four to six hours to transcribe a tape. If you use a digital recorder, you can just transfer the recorded interview onto your computer. However, you will still need to transcribe the interview; the voice recognition programs that I am aware of do not work on voices other than those programmed into the system.

Being old-fashioned, I use a transcription machine. This is a wonderful machine that cuts down hours in the transcribing process. I always buy transcription machines through eBay, where refurbished ones cost between $50 and $100 each. They are simple devices that work like sewing machines. You can control the start, stop, and back-up functions for the tape with your feet. There are two pedals that control the direction of the tape. You listen to the tape on a headset and control the speed of the tape, which you can put at a typing speed so that you rarely have to stop and rewind the tape. Your hands are only used for typing. When you have the hang of this, a one-hour tape should not take more than two to three hours to transcribe.

Rule number five: "Always go over a transcribed tape shortly after you are done to double-check what you missed." Make sure you have a key of codes for all the necessary paralinguistic cues, and use that key consistently. You can make up your own key, but there are designated, commonly accepted keys that present the symbols for pauses, lowering and raising of the voice, and various other paralinguistic cues.

Coding

One cannot overemphasize the importance of coding. In fact, coding really is the analysis. To me, coding is a big mystery. I have searched and voraciously read the literature on how to code texts, and I have found almost nothing that sheds much light on this mystery. This is because coding is something between an art style and a mathematical formula. You simply "cannot teach style," and no mathematical formula can capture the gist of speech. Most often, anthropologists don't use an explicit or systematic methodology for coding; rather, they use statements that suit their purpose to legitimate a point. So quotes are presented as "typical" and "representative" of the natives. Sadly, how such statements qualify for this role is left unsaid.

The more scientifically and quantitatively oriented researchers tend to use content analysis. *Content analysis* is a powerful set of methods that uses, at its base, word counts or frequencies as correlates of important concepts. One word of warning on using just word counts is that is important to distinguish between the different uses of words: for instance, we can say, "the state of Delaware," "I will state again that I am innocent," and "the president gave his State of the Union address"; none of these three uses of the word *state* are remotely equivalent. You need to be a bit more sophisticated and attend to what is called *key word in context* (KWIC) in order to get at the meanings of terms. There are also many, many excellent coding programs out there (e.g., Atlast ti, N6, NVivo 8, Ethnograph) that allow you to use frequency counts, KWIC methods, and whatever coding scheme you like. These programs don't help you if you don't already have an idea of what you want to code, and what you want to code it for. These programs are very useful for compiling coded portions of texts and investigating relations between them.

I recommend coding the old-fashioned way, by hand, using index cards and hard copies of the transcriptions, which can be marked and cut up. Also, don't let the text determine what you want to code for. Here let me add that I am swimming against the tide, as most text-analysis programs that I am aware of rely on grounded theory to construct coding schemes. You can agree

or disagree with me here—and ultimately it shouldn't matter too much—but just follow my argument before you use a grounded theory approach to coding.

First, by the time you get to the interview stage of your research design, you have already done grounded theory. That is what an emic approach is all about. You have worked from the ground up, patterns have been derived from the informants' freelists and pile sorts, and even the questionnaires, ideally, test hypotheses that were implicitly or explicitly claimed by your informants. You already have lots of hypotheses, themes, patterns, concepts, and behavioral repertoires, and links between them. You don't need this sort of data anymore. What you really want to do is use interview data to make connections and flesh out the contexts of your previous findings. For instance, interview material can help you find out under what conditions love relationships are temporary, under what conditions someone feels "giddy," how fantasy turns into reality, and so on.

The interviews, although they are conversations about what people do and not the actual doing, help you construct scenarios of what people say they actually do, think, and feel. This is the time to test your hypothesis and theories—and whatever else you've accumulated that seems worthwhile—against *actions*. So work from the top down. Code your transcriptions of interviews in terms of what you are looking for. Hence rule number five: "Code from the top down not from the bottom up." I've been assertive here, and perhaps too much so, but I have not yet read a text on interviews that makes this argument.

In my own work on romantic love, we have come up with a number of themes from the freelist, pile sorts, and questionnaires. One of the early themes that we discovered was that romantic love was seen as a relationship rather than as a psychological state, and the idea that romantic love also indicated a mutually supportive dyad was strongly noted by informants. Another pattern that we found was that Lithuanians in particular thought of love as a fantasy state, something temporary that, after some period of time, either ended or was transformed into a more enduring pragmatic relationship. Thus "fantasy"

romantic love and "pragmatic" romantic love were not in opposition, but represented different stages in the development of a romantic-love relationship. Both the fantasy state and the pragmatic state were given real, substantive, ontological status by the Lithuanians (as opposed to the Americans).

These and other ideas were themes that served as codes, which we searched for in the interview transcriptions. I hired two coders, and we went through the interviews and coded passages using color markers to code for broad themes (e.g., fantasy-pragmatic, good love–bad love); examples of key terms (e.g., *mutual respect*, *altruism*, *sadness*); and key activities (e.g., holding hands, walks, surprises). Janina, Linas, and I compared our initial codings. We then discussed differences and problems, conducted another run through a transcription, and fine-tuned our coding scheme. Our themes and codes were developed from previous freelists and pile-sort data; we added context codes and other sorts of codes that emerged from our reading of the transcripts—e.g., kinds of conflicts, jokes, relation statements, propositions, part-whole relations, analogies, and so on.

On the index cards we wrote the page numbers of passages that referred to particular codes. The reference cards were also categorized into groups; the categories were things such as "conflict," "jokes," "mutual," "altruism," and "fun activities." Passages were often cross-referenced in these code books. A passage could fit under many codes, and we would indicate whether three, two, or one researcher(s) had marked a code. We aimed at a 2/3 consistency for all the codes used for analysis. If the minority person strongly disagreed with the coding of the other two, however, we would take that into consideration. If a passage was coded *3*, then it meant that all three of us had independently agreed on this code. We met once a week to go over coding schemes (sometimes more often), and often informally. But at the end we were satisfied with the overall coding of fifteen interviews. The coding of fifteen interviews took a year. It's a long process, and it could be done much more quickly by the researcher alone, but not so reliably. Below is an example of the end result of coding tapes.

Conceptualizing Romantic Love through Interviews

I use only interview material from one informant to demonstrate the way the framing of romantic love as "true" or "false" and "long-lasting" or "temporary" influences personal choices. Only excerpts of the interviews are used, to show how interview material can be incorporated into a top-down analysis. Below is an analysis based on codes for long-lasting and temporary love relations for Ausra (a woman) and Ugnius (a man); codes are in italics and bold. It should be remembered that all of the excerpts below were already coded as representing one of the two major dimensions of romantic love discovered via the pile sorts: real/pragmatic–fantasy and good romantic love–bad romantic love.

Ausra was a thirty-two-year-old divorced woman who worked as a civil servant in Vilnius. Near the end of the interview, she was asked if she still thought that romantic love was important to her.

> **Ausra:** Yes, important. It gives me a ***desire to live***. It gives ***energy*** and ***enthusiasm***. It is very important.

But earlier, when asked to define romantic love, Ausra had said,

> Romantic love is when you create an ***ideal***; you see a beautiful picture. He pays ***big attention*** to you, you like him you almost ***worship*** him . . . Romantic love is an ***upsurge of feeling*** (*pakilimas*), you don't feel how you walk, what you do, how you work only that person is in your head. I had such a love and it affected my brain very much. It is a terrible disease; I wouldn't like to experience it again. He lived in another town and we rarely met so he used to come to my place for a week and I would do likewise. I loved him very romantically until we moved in together. ***Everyday life/routine*** (*buitis*) ***destroys everything***, it's a terrible thing.

In her initial statement, Ausra describes romantic love as a master motive in her life, giving her "a desire to live" and "en-

ergy." Then she describes it as an ideal, but implying that it is an illusion, a fantasy that is like a trap if you believe it to be real. When you fall in love it is, as she says, like catching a "***terrible disease***" affecting your entire psyche (e.g., "you don't feel how you walk") and your "brain," that is, "how you think." Love is a ***disease*** and it is ***temporary***. Having recovered from this "disease," she says, "I wouldn't like to experience it again." In other words, for Ausra, and for many others, there is something both highly ***desirous*** and, at the same time, ***frightening*** about love. Also, love is something that is uncontrollable, and this is what is frightening about it: it is an uncontrollable experience that one recognizes to be a fantasy, but that one is impelled, by some inner psychological drive, to treat as reality.

[***Development/context***] Ausra met her husband at a disco when she was twenty-three years old; they started to have sex and she became pregnant. They married, and the husband moved in with Ausra and her mother in their two-room flat. Her husband was a woodworker with "golden hands" (*auksines rankos*); he could make beautiful things from wood. Unfortunately, he and his uncle (with whom he worked) liked to drink:

> **Ausra:** Many people used to pay in liters rather than litas. He [her husband] didn't know how to say "no." And every day he came home drunk. We lived for about eight to nine months with my mother who asked me how I could stand it. Every evening he came back drunk and apologized, saying that it was his last time, but the next night he would come home drunk again.

She ***began not to care*** about him. She also began to reject his sexual advances. But her mother, though despising her husband, said to her, "Medicine is not tasty but you drink it anyway." She decided to try and "***keep the family together***" and consented to have sex with him whenever he insisted. There followed two years of her repeatedly giving him "one more chance." Finally, she said that she kicked him out of the house and eventually they divorced [***termination***].

During this period, she began to see other men but did not have sex with them, though she claimed she had many admirers. She explained her decision to abstain from sex:

> **Ausra:** What for? What is the purpose? If I don't like a man and if I don't want to communicate with him, it would be even less interesting to have sex with him [***proposition***]. I am not such a "good girl" [*geriet*] who needs to be in a serious relationship before having sex. If I liked some guy very much I would agree at once, but somehow that did not happen [***proposition***].

After her divorce, she was skeptical about romantic love and made a conscious decision that she would agree to have sex with men she wanted to have sex with but that she did not want to enter a serious love relationship [***part-whole***]. The men she had sex with over this period had to meet two requirements: first, they had to be physically attractive to her; and, second, they had to be good conversationalists. She did not seem concerned about having casual sex and cited the following story to justify her actions:

> **Ausra:** A village priest's wife once told me that it is better to commit sin once and to regret it your whole life than not to commit a sin at all and regret your whole life that you didn't commit it. I was surprised to hear this, but I think I have the same attitude [***analogy***].

She eventually found another man whom she fell in love with. He lived about five hours by train from Vilnius, and she would visit him. She said that she even liked to smell his sweat and referred to him as "*savas*" (a Lithuanian word which means "like me" or "***the same as myself***" in a more intense way than can be said in English; perhaps the closet translation is the sense of being one with the other). This man moved to Vilnius and began to live with Ausra and her eight-year-old daughter and mother in their two-room house [***development/context***]. However,

> **Ausra:** He became very strict with my daughter and started making his own laws until my daughter complained that she

> couldn't live with my boyfriend. He also became very paranoid about my ex-boyfriends who would phone me up on occasions . . . The relationship became fucked up and I felt that every day I was returning not to my home but to the ***inquisition ward*** [*tardymo izoliatorius*] ***[analogy]***. I would have to explain why my child is not brought up properly and why I came home so late, why my mother was doing something wrong. So I was guilty all the time [***context***].

She became tired of him and, to her daughter's delight, told him to leave, which he did. At the end of the interview, when asked what she wanted most in life, she said immediately,

> **Ausra:** ***Freedom*** (*laisvai*), freedom and ten times freedom [meaning from men] . . . I would like to see how those ***traditional*** women would react if their husbands trained their children like dogs. They would probably tell me that a "father is necessary for a child." On the other hand, my colleagues at work get ***jealous*** when I tell them that I spent two hours in the bathtub or that I went for a walk in town and went to a café [***proposition***]. They can't do that anymore. They have families, they have to cook, wash, iron and etc. They have obligations.

She said that she would want a man only on the condition that she would have her freedom and he would not be paranoid. She would not even mind if he had other girlfriends, as long as he did not impede her life:

> **Ausra:** It would be nice to live together but not to constrict (*varzhyti*) each other. I don't want to have to choose between myself and my family. I can give my time to my family but I also want something in return. I don't want to give give give and have the others take it all for granted and then when you say you are tired, your husband will say "but you haven't done anything [***proposition***] [***context***]."

At the very beginning, Ausra notes that romantic love includes passion, and that she expects a mutual relationship (even though there is inequality). She also notes that romantic love is an "ideal" and a fantasy. She states that her mistake was to take

romantic love as real. The excerpts above, though abbreviated, show how the codes work to provide passages that substantiate the previous findings. When all put together, the material from the interview strengthens and gives life to the cultural models we had previously elicited through the more decontextualized methods of freelisting, pile sorting, and questionnaires.

I now turn to a few excerpts from Ugnius's narratives about his love life. Ugnius was a Lithuanian male. One can see how he shared Ausra's basic themes of real and fantasy love but that the context, motivational force, and expression of these selfsame themes were presented from a particularly male perspective. It is interesting to present an example of Ugnius's narrative to show how identical codes still have different interpretive and behavioral repercussions based on the gender of the actor.

Ugnius was a handsome, twenty-eight-year old man. He portrayed himself as somewhat of a Don Juan, a man women were interested in. He had first had sex at thirteen and had then had relations with many others—though he said, "Sex is not important to me." Ugnius explained his philosophy of love and sex as follows:

> **Ugnius:** I've always put women first and only thereafter thought about myself. That's why women have liked me and why I have always had a lot of women, because first of all I think about them [***rationale/proposition***]. I would say that this is especially appreciated among women and so they talk about it and their girlfriends then want to get to know me. Males do not talk about the performance itself, women do and share this knowledge . . . As I told you there have been a lot of women and I somewhat know, though not perfectly, their psychology [***proposition***].

Ugnius said that he had been in love twice. The first time was more romantic; he described it as a "special rapture" (*ypatingas susižavejimas*) and as "dreamy" (*svajingas*). Ugnius described his second romantic relationship:

> **Ugnius:** the second love was the love of a mature man, there were ***no prickles in the belly*** (*dyg iojimai pilve*). There occurs

> . . . a desire to ***protect*** that person; you feel like a primitive man protecting his woman from all dangers. With her I began to think about the ***future*** and how to live together. This second love was of a much stronger color, not a pastel color [***analogy***] . . . There was a full ***understanding*** of our actions and we held a ***serious attitude*** toward each other. We worried and took daily ***care*** [*buitinis rupinimasis*] of each other. We worried if the other was hungry, had clothes, and so on [***altruism***]. We already communicated like adults. The second love was ***stronger*** and ***wiser*** than the one before because we didn't make mistakes like I did in the first love.

Ugnius distinguishes between romantic love and mature, or real, love. For Ugnius, romantic love and real (or mature) love do not exist simultaneously; romantic love is "a ***dream***" and "mature love" occurs when you begin to take each other seriously. They don't complement one another; they oppose each other [***relation***]. This interpretation seems warranted from his response to the question, "Can romantic love can last?"

> **Ugnius:** I don't think so [he said emphatically]. I know this for sure from my own experiences . . . It always ends . . . that ***fairy tale***, it always has to end: happy or unhappy, and only then do you start looking at the world realistically [***temporary***].

Later he described how romantic love could be choking, and he explained that the reason for the breakup of the second relationship was that the woman wanted the relationship to be more romantic:

> **Ugnius:** There was ***too much of each other***; we were not teenagers who need to be together all the time. It began to ***suffocate***. As an adult you have a big circle of ***friends*** with whom you want to spend time. Also among males, ***when three males are talking a woman is unnecessary*** . . . The feeling of love remains but becomes friendly not romantic [***proposition: gender***].

This second, more mature love that Ugnius refers to lacks the poetry and fantasy that is associated with Lithuanian notions of romantic love. Indeed, Ugnius notes that while his sex life is

satisfying, he hasn't been able to have a mature love relationship because women prefer romantic love and they criticize him for not being romantic. Ugnius's career as a budding lawyer and his circle of friends are more important to him than romantic love. He knows he should want a mature love relation, but he is uncertain as to whether he wants to make such a commitment at this time.

Ugnius's cultural model of romantic love is similar to that of Ausra; for him it is also a dream, not to be taken seriously. But unlike Ausra, Ugnius is, so he says, not at all motivated by romantic love. He views romantic love as something that takes time, money, and energy—in other words, a fantasy that can still obstruct his career ambitions and his relationships with his friends. Ugnius also said that he didn't want a serious relationship at the time of the interview because "it takes time, money, and moral obligations and I can't afford it yet." He didn't have a great job, he didn't earn much money, and he still felt too young and "open to the world"; so he didn't yet want to feel "obligated" to another person. Consequently, he preferred short sexual encounters to a long-term relation. It may be likely that Ugnius's rejection of a cultural model of romantic love and his decision to postpone the search for mature love is more typical of males than females, particularly since mature love is so strongly tied to the breadwinner role for males.

The excerpts above were designed to give context to our previous research results. The interviews powerfully illustrate how a Lithuanian female and male informant use "real" and "fantasy" cultural models of romantic love. These two case studies suggest that gender plays a large part in how these cultural models are employed. The different methods work together to develop more complex, more dynamic, and more contingent pictures of how the broad themes are made manifest in the lives of individuals. With more interviews, we can work inductively and deductively between the models developed and the individuals interviewed to create a contextually rich analysis that still does justice to the reductionist thrust of science.

How to Avoid the Pitfalls of Interviewing

The main pitfalls have been discussed in the above sections, but let me review how to avoid some of them.

1. Always be prepared: have your equipment ready to go, make sure you have new batteries in your tape recorder, and so on. I have had it happen to me that the battery power of my tape recorder was too weak, and I had to record the interview by writing on a notepad. My researchers also had this happen to them because they were too cheap to buy tapes or batteries, and I was not organized enough to make sure that I gave them new equipment at regular intervals.
2. Make sure that interviewer and interviewee are of the same sex; if not, sex will get in the way. For one thing, you may be embarrassed asking very personal questions. And if, for example, you are a man interviewing a woman, you may not be able to pick up on cues that another woman would. And you cannot create a kind of easy, mutual understanding of situations—saying, for example, "Yeah, I know what that's like"—with someone of the opposite sex.
3. Be aware that one interview with a person is, not useless, but close to it. It is suspect. The advantage of long interviews over questionnaires is that the former give an opportunity to explore context, and to elicit the morass of contextuality and the way people think in real-life situations. All this cannot be obtained in one interview.
4. Don't try to make an interview too efficient. Let the informant talk about various things. But also don't let the hour go and find that you have been talking about everything but the topic of the interview. Get them back on track, where necessary.
5. Remember that an interview is a conversation, not just a question-and-answer program. A conversation means that you jump in and contribute personal information

when appropriate, but that you keep your part of the conversation short and show interest. If there is too much of you on the tape, change your style in subsequent interviews.

6. Use a transcription machine to transcribe tapes into text—you still need text—and always check transcriptions against the audio. If you don't, the transcriber will get sloppy and the transcription will be suspect.
7. Code from the top down, not the bottom up. Bottom-up coding creates ad hoc, nonfalsifiable propositions that are at best insightful and are typically useless for generalization.
8. Use more than one person to code texts, and compare codes. I found it very helpful to color code and use confidence measuring to rate codings.
9. Cross-reference codes, either on index cards or in a book, so that you can find all the statements on any code easily.

8

Process Methods

with assistance from Meghan Garry and Ryan Quadrel

This is a brand-new method for both data collection and data analysis that I am excited about introducing to the reader and potential researchers. I developed the method with Meghan Garry, and it was then refined by Ryan Quadrel. (The latter two were both undergraduate students at the time.) The method was specifically developed for collecting emic data in order to represent cultural models or schemas of cultural **processes**. A major problem with much of the research conducted in the social sciences is that the focus is on collecting nodal data—or, to put it another way, on nouns and qualifiers of nouns. Thus, data sets usually consist of such nouns or noun phrases as *gender*, *ethnicity*, *social class*, and *income*, and of qualifiers such as *values*, *evaluations*, *attitudes*, *beliefs*, and *personality traits*. The nouns and qualifiers are then combined to make such statements as "Women are more liberal than men," "Disputes over money are the leading cause for divorce," or "African Americans are more liberal than Euro-Americans."

Very little data is designed to describe processes. Questionnaires, pile sorting, free lists, and observational forms of data collecting focus on attributes of an event, social interaction, or person, but not on processes that take place over time and across places. The reasons are obvious: questionnaires are easy

to construct and administer, informants are familiar with them, and there are statistical protocols designed for analyzing them. Event analysis is also easier than long-term processes since researchers can observe an event such as a wedding from beginning to end (Heise 1992; Metzger and William 1966).

Because of the difficulty of collecting process data directly, researchers typically rely on interview techniques. In free-flowing, semistructured interviews, process data is usually collected in an ad hoc fashion which sacrifices systematicity on the altar of "thick description." Structured approaches rely on a top-down, if-then model of event processes, which sacrifices the emic value of the unstructured approach. The free-form, unstructured approach is useful as an initial exploratory technique, for seeing "what's out there," and the structured approach is useful after much research has already been conducted and the range of variability, as well as the critical components and processes, have been discovered. However, most research takes place between these two parameters of knowledge.

In this section we will consider both the initial and middle zones of collecting and analyzing process data. I wish to present a method that will elicit and lead to reliable and valid descriptions of cultural processes, rather than descriptions of cultural concepts (e.g., beliefs, values) or snapshots of events or processes. Such snapshots are not really descriptions of processes but of segments of the process glued together. Hence the methods proposed here are specifically designed for, and thus are only useful for, gathering data on processes. Second, the methods proposed here do not sacrifice science or thick description, but offer what I believe to be a satisfying synthesis of these two approaches to data collection.

A Quick Overview of Our "Process Method" for Collecting and Analyzing Cultural Processes

Let us give you a quick tour of the process method that we developed, so that you can visualize the steps:

First, conduct short interviews with a pilot sample.
Second, compare interviews. Extract those words or phrases used most frequently, and group them into two piles: (1) events (or timelines of events); and (2) values, typical behaviors, and emotions (*orienting terms*).
Third, color code the events and orienting terms on cards (no more than twenty in each group).
Fourth, recruit a second set of informants.
Fifth, ask the informants to place the event cards (say, blue cards) in a timeline sequence, either according to their own experience or what they think is "culturally typical." (Make sure that the events and orienting terms are kept separate, on different colored index cards.)
Sixth, ask informants to place the orienting cards (say, red or pink in color) under the event cards.
Seventh, get scissors and a ball of yarn, so that the latter can be cut, and the cut string can be attached with a clip to any orienting card if the interviewee thinks the orienting term (e.g., *nervous*, *excited*) extends across events.
Eighth, offer extra cards for people to add events or orienting terms as they see fit.
Ninth, when they have finished placing the event terms; placing the orienting terms below the event terms; and placing the yarn across the orienting terms, verify that the results look something like figure 7.
Tenth, ask the interviewees to discuss their placement of the events and then the orienting cards.
Eleventh, at the end of the interview session, take a snapshot of the card maps (so that they can be compared).

My assistants and I have conducted about twenty such interviews. (We are still in the process of collecting this data cross-culturally.) The entire process seldom takes more than an hour (usually around forty-five minutes), and all of our informants thus far have said that they enjoyed doing this task.

Important to this new process method is that it allows informants to choose whether the variable is discrete or continuous;

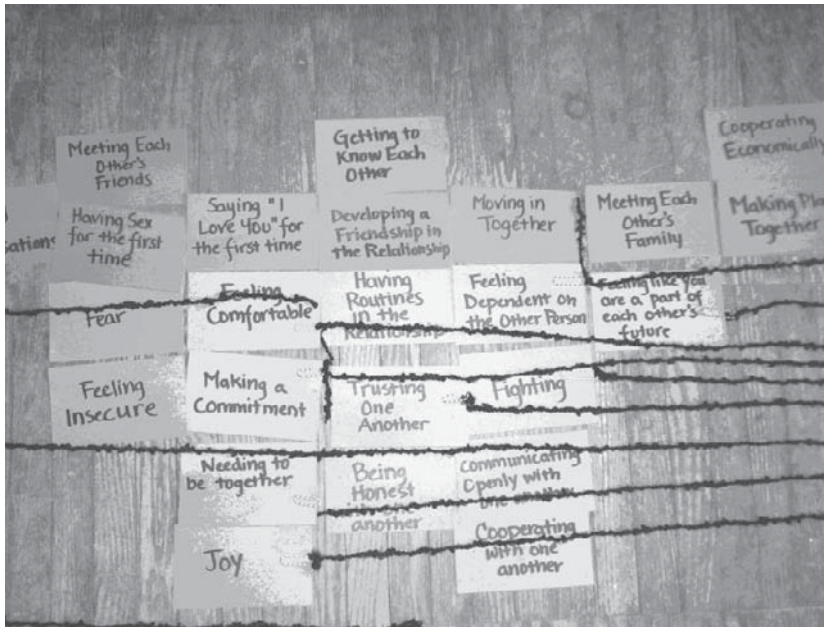


Figure 7. Picture of a portion of the courtship process by one interviewee

and, if it is continuous, then they can specify its presence across X number of events. Our method is designed to explicate the decision-making process (though due to space limitations, this is not included in this chapter). But what we find most exciting is that this method is designed to examine the linkage between events and the values, behaviors, beliefs, and emotions triggered by and associated with those events—we refer to these associated dimensions as **orientations** in the discussion below. We will now present a more comprehensive description of the above series of tasks.

Data Collection and Coding for Events and Orientations

Our goal was to describe cultural models of the courtship process among (for this chapter) Americans. We had already interviewed

twenty-plus individuals on courtship using a semistructured interview method; that is, we had a theme—courtship—and we had asked people to describe a *typical* courtship process from beginning to end. Using Handerwerker's sampling technique, we interviewed three women and three men who were married, two women and two men who were divorced, and five women and five men who were in the courtship process (but not married). Meghan and I coded for events, emotions, "states of being" (e.g., "I trusted X," "I felt comfortable around X"), behaviors, and values (e.g., "honest," "friendship"). We noticed that our informants had a difficult time discussing the *typical* courtship process and often reverted to describing their own courtship experiences. We concluded that part of what gives romantic love—the critical factor in courtship—its motivational force is its individualizing and personal role. Romantic love necessarily stresses the relationship between two people and the outside world. If a person were to feel that his or her experience with romantic love was typical and standardized, it would lose its motivational force. Thus, it is an individualized entity. Furthermore, romantic love makes the two people involved in the relationship feel even more individualized based upon their interactions between one another. To have a cultural model of courtship, which is, in part, a culturally standardized conceptualization of the functioning of romantic love, it would be logical to assume that it would not contradict the specific values tied to romantic love. In other words, part of the function of a cultural model is that it is shared. It is possible that in terms of a courtship model, there is the cognitive necessity to conceal the culturally shared aspects of the model and to couch those aspects in individual terms, in order to perpetuate both our model of romantic love and our model of courtship. Thus our problem for developing a method that dealt with this "individualizing" phenomenon and also presented a cultural process was quite severe.

Event and Orientation Variables

We decided that we would take the primary events of the courtship process and consider them to be one domain of the process.

The second domain consisted of the primary emotions, "states of being," and values associated with these primary events. We combined these cards into one "orienting" category. By *primary events*, we mean all those events that seemed to be required aspects for the courtship process to proceed from the first-phase "initial attraction" to its concluding phase, "***marriage***." Below are the events and orientation terms.

List 9. Events/Actions and Orienting Terms

Events/Actions	
Developing a friendship in the relationship	Dating
Having sex for the first time	Meeting each other's family
Meeting each other's friends	Instant attraction
Getting to know each other	First kiss
Saying "I love you" for the first time	Moving in together
Getting married	Cooperating economically
Making plans together	Having deep conversations
Finding common interests	
Orienting Terms	
Fear	Having routines in the relationship
Taking each other for granted	Feeling like you are a part of each other's future
Cooperating with one another	Fighting
Making a commitment	Feeling excited
Communicating openly	Being best friends
Being honest	Trusting each other
Feeling insecure	Needing to be together
Joy	Being infatuated
Feeling a physical attraction	Feeling comfortable

These terms were put on separate, colored index cards, as shown in figure 7. Informants were recruited and informed that we were studying cultural models of the courtship process. We showed them the two piles of cards, which we invited them to sort through. We also had blank cards for both event and orienting categories, and we told them they could write down their own events or orienting terms if they felt some typical ones were missing. We explained that the yarn would be used to provide a visual indicator of the extent of an orienting term across events, and that they could cut the yarn to any length they wanted.

The interviews were recorded, then downloaded and transcribed. Our concern in this chapter is not the analysis of the interviews, but the analysis of the data related to the events and orienting terms. Below we present a brief description of the various analyses that we have thus far conducted. Most of these analyses are still in progress, so they are not yet ready for publication. However, we think the above data-collection method offers a wide variety of different data-analysis procedures that researchers and students will find useful.

Data Analysis

At the outset, I considered the timeline sequence to have the quality of sentences and thus have its own "grammar." By this I mean that, as there are many ways to say the same thing, there should also be many kinds of "courtship processes" which different informants presented as "typical." I assumed that there would be variation among the informants in the timeline sequence, but that these variations were constrained by an overall cultural logic or image of the whole courtship process. Hence, I thought of the events along the timeline as expressing a process "grammar." Processes vary, but they vary within parameters and cannot, by definition, be random. I expected that some set of events were typically clustered in the early phase of the process, some in the middle, and some at the end; and that beginning events could be in free variation with one another but usually did not "leak" into the second or third stages of the process. Furthermore, some events may have greater range than others; but few, if any, should be found distributed randomly or equally across the timeline (e.g., with one informant placing event *x* at the beginning, another at the middle, and yet another at the end of the timeline). We did expect variation in the placement of terms along the timeline, just as there is variability in speech or writing. In order to analyze the placement of terms, we relied on inputting the data into Excel, as shown in table 15 and figure 8.

Table 15. Timeline sequence of events with measures of mean and mode

	Attraction	*Getting to Know*	*First Kiss*	*Interests*	*Dating*	*Deep Conv*	*Having Sex*
1. 21fsin	1	2	5	3	6	4	8
2. 46fm	1	9	4	3	1	5	6
3. 27fse	1	2	6	3	7	4	9
4. 21fsin	1	4	2	8	5	10	3
5. 20fsin	1	3	5	7	4	9	10
6. 43mm	1	2	7	6	4	5	8
7. 26msin	1	2	5	7	4	6	8
8. 23msin	1	6	3	2	5	10	7
9. 27msin	1	2	6	3	8	4	7
10. 21msin	2	3	1	6	7	9	5
mean	1.1	3.5	4.428	4.8	5.1	6.6	6.857
mode	1	2	4	3	4	4	8

Making Plans	*Meeting Friends*	*Friendship*	*"I Love You"*	*Meet Family*	*Economic Cooperate*	*Moving In*	*Getting Married*
12	9	7	11	10	14	13	15
9	6	13	8	12	11	13	15
12	8	5	11	10	13	14	15
6	7	9	11	13	12	14	15
2	6	8	11	12	14	13	15
12	9	3	10	11	14	13	15
3	9	10	12	13	11	14	15
8	4	9	12	11	13	13	15
5	9	12	11	10	13	14	15
4	8	9	11	12	13	14	15
7.3	7.5	8.5	10.8	11.4	12.8	13.5	15
12	9	9	11	10	13	14	15

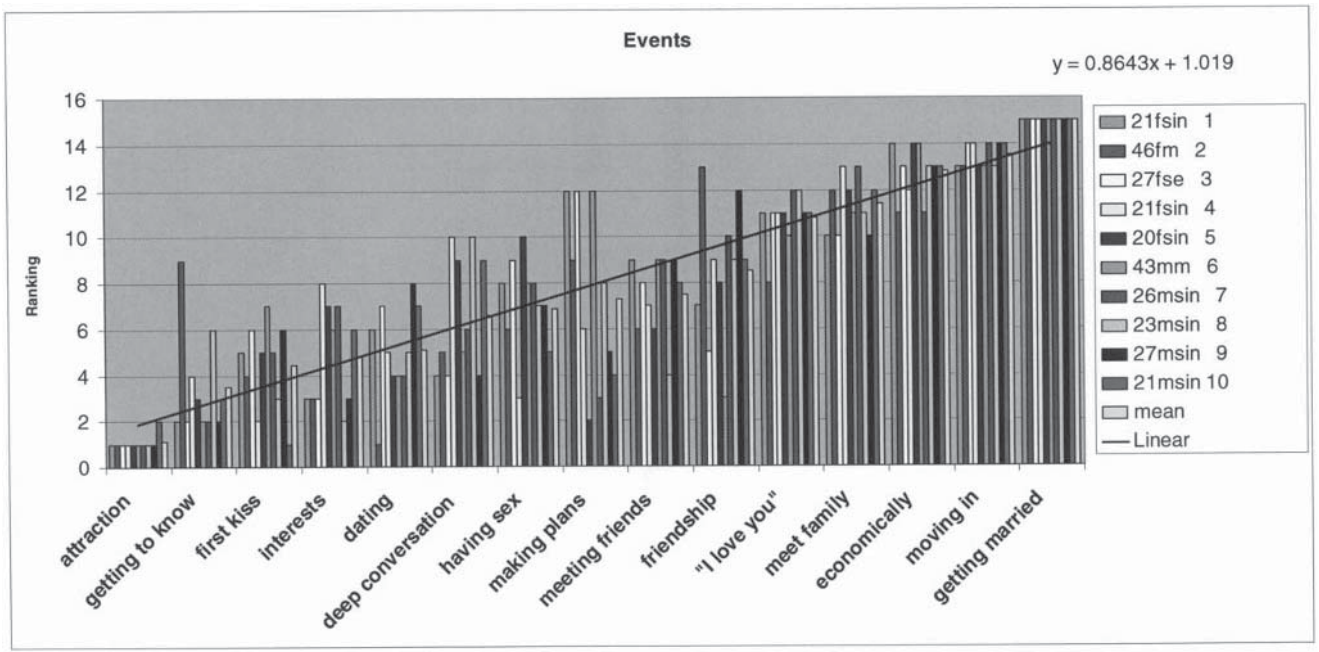


Figure 8. Graph of timeline sequence for ten informants with measure of mean and mode

The graph in figure 8 does show variation, but one can also discern that there is a grammar, and that events are mostly located in early, middle, or late stages. ***Initial Attraction*** is the first trigger event for courtship, and is followed by those kinds of activities that motivate the development of an enduring relationship, both romantically and companionately—"***getting to know***," "***first kiss***," and "***common interests***." The second stage seems to be marked by events that are designed to cement the relationship and that, as a result, focus on articulating the relationship with the outside world—family and friends. The third stage of the relationship consists of actions related to planning and formalizing the relationship as an enduring social organization—"***cooperating economically***," "***moving in***," and "***getting married***."

We noticed that "***making plans***" was one of the most variable event terms; in examining this, we discovered that women tended to put it late in their timelines, while men put it early in their timelines. Interestingly, in going over the interviews to discover the reason for this gender difference, we found out that women tended to think of "***making plans***" as a serious long-term concept, whereas men thought of it as referring to ad hoc activities that occur on a daily basis.

Given the significant difference in how men and women perceived the event "***making plans***," we wanted to see if there were significant gender differences in timeline sequences. To find out, we simply ranked the terms according to their means for both men and women, and we came up with the results shown in table 16.

Except for "***making plans***," there do not seem to be many significant differences in the way men and women perceive the timeline of courtship.

Next, we wanted to look at linkages between orientations and events, and we did so by creating table 17.

The columns represent the events and the rows the orientations. Both discrete and continuous conditions were considered when constructing this grid. The numbers along a row indicate the number of times an orientation was identified with an event.

Table 16. Ranking of events for male and female informants

Ranking	*Male*	*Female*
1	Instant attraction	Instant attraction
2	Getting to know each other	Getting to know each other
3	First kiss	First kiss
4	Finding common interests	Dating
5	Dating	Finding common interests
6	Making plans together	Deep conversation
7	Deep conversation	Having sex for the first time
8	Having sex for the first time	Meeting each other's friends
9	Meeting each other's friends	Developing a friendship in the relationship
10	Developing a friendship in the relationship	Making plans together
11	Saying "I love you" for the first time	Saying "I love you" for the first time
12	Meeting each other's family	Meeting each other's family
13	Cooperating economically	Moving in together
14	Moving in together	Cooperating economically
15	Getting married	Getting married

The number 10 indicates that an orienting term was listed as present for an event by all ten informants. The numbers in bold indicate the highest number of times an event was linked with an orientation among our sample (or its *correlational value*). For example, "***trusting one another***," "***cooperating economically***," "***moving in together***," and "***getting married***" all have correlational values of 6. Table 18 is a chart that highlights the strongest correlations. Orientations can have equally high correlation values across events because the informants presented them as continuous variables, using the yarn to extend the terms across events.

From table 18 we can identify certain events as "attractor" events, or events that draw a lot of emotions, states of being, behaviors, and values (the components we glossed as *orientations*). Table 19 presents a matrix expressing this notion of attractor events, as it shows the frequencies of the orientations that each event in the courtship process attracts.

Tables 18 and 19 explicitly show that attractor orientations (i.e., those mentioned with the most events) like "***honest***" (n = 7), "***cooperating with one another***" (n = 5), "***making a commitment***" (n = 4), and "***joy***" (n = 4) refer to attributes required for an enduring, intimate relationship such as cohabiting or marriage. Interestingly, only "***joy***" is a term identified with romantic love or sex. This suggests that while romantic love and sex are critical aspects of the relationship, most of the effort is focused on developing intimacy (Jankowiak 2008). As the events along the timeline progress toward the official terminal state (i.e., "***marriage***"), we find a greater number of orientation terms recruited to the events.

In terms of the timeline of events presented above, we wanted to test whether or not this was a prototypical one for the courtship process. To remind the reader, the above timeline orders events according to their means. We recruited a third sample of ten informants and presented them with four sample timelines, obtained previously. We asked these informants to "choose the most typical timeline for the courtship process in America." Nine informants (90 percent) selected the above timeline of events as the most "typical." My research on the courtship process is still very much a work in progress; however the above methods for data collection and analysis present a new set of methods for investigating cultural processes, one that should be useful for any social/cultural research project that aims to examine processes rather than states.

Pitfalls of Process-Data Collection and Analysis

A *process* consists of a clear initiating event and a clear terminating event. The events between these two parameters are arrayed in a culturally recognizable, logical, and evolutionary sequence. The courtship process is a clear example of such a process. To collect process data, the researcher begins with a blueprint of the key components of any process: contexts, roles, moves or

Table 17. Proximity matrix of orientations and events

	Instant Attraction	*Commitment*	*Getting to Know*	*Date*	*Deep Conv*	*Kiss*
Infatuated	3	1	1	2	2	2
Physical attr	10	7	8	7	7	7
Excited	4	5	3	5	7	7
Fear	1	2	2	5	2	1
Honest	1	2	5	2	5	2
Communicate	0	1	2	2	6	4
Commitment	0	0	1	1	1	0
Joy	1	3	3	4	3	4
Need to be together	0	0	1	1	1	0
Insecure	3	1	4	3	1	2
Comfortable	1	2	2	2	3	2
Trust	0	2	1	2	2	1
Future	0	0	0	0	1	0
Fighting	0	0	0	3	2	1
Best friends	0	0	0	0	3	0
Routines	0	0	1	1	1	0
Dependent	0	0	0	0	0	0
Cooperating	0	0	1	1	1	1
Granted	0	0	0	1	0	0

Sex	*Meet Friend*	*Meet Family*	*"I Love You"*	*Plans*	*Dev Friend*	*Economic Cooperate*	*Move In*	*Getting Married*
3	1	0	1	3	2	0	0	0
7	7	6	7	7	7	6	6	6
4	3	2	3	4	2	1	1	1
4	3	1	1	3	2	2	1	1
3	3	4	5	5	3	5	5	5
4	3	5	6	4	4	6	7	6
1	2	3	6	2	4	6	6	6
5	4	4	5	5	5	4	4	4
0	0	2	6	2	3	5	4	5
4	2	1	1	4	1	1	1	1
3	4	3	4	4	5	4	4	5
4	4	4	5	5	4	6	6	6
0	0	2	1	2	1	1	1	1
1	3	5	7	3	4	9	8	9
1	1	4	5	1	2	5	7	7
0	2	5	4	1	3	4	8	5
0	0	1	2	1	1	3	5	3
2	4	4	3	4	1	4	4	3
0	2	2	3	0	2	5	7	6

Table 18. Highest correlation values between orienting and event terms

Orientations		*Correlated Events*
Being infatuated	n = 3	Instant attraction, deep conversation, making plans together
Feeling a physical attraction	n = 1	Instant attraction
Feeling excited	n = 2	Deep conversation, first kiss
Fear	n = 1	Dating
Being honest with one another	n = 7	Getting to know each other, deep conversation, "I love you," making plans, cooperating economically, moving in together, getting married
Communicating openly	n = 1	Moving in together
Making a commitment	n = 4	"I love you," cooperating economically, moving in together, getting married
Joy	n = 4	Sex, "I love you," making plans, developing a friendship
Needing to be together	n = 1	Saying "I love you" for the first time
Insecure	n = 3	Getting to know each other, sex, making plans together
Feeling comfortable	n = 2	Develop friendship, getting married
Trusting one another	n = 3	Cooperating economically, moving in, getting married
Feeling like part of the future	n = 2	Meeting family, making plans
Fighting	n = 2	Cooperating economically, getting married
Being best friends	n = 2	Moving in together, getting married
Developing routines	n = 1	Moving in together
Feeling dependent	n = 1	Moving in together
Cooperating w/ one another	n = 5	Meeting friends/family, making plans, cooperating economically, moving in together
Taking each other for granted	n = 1	Moving in together

actions, triggering events or actions, a developmental sequence of events or actions, and a terminal act or event.

Initial interviews need to be conducted to obtain information about the key, culturally shared and diacritical components of the process. Informants for the interviews should be familiar with the process under question, and the sample should be rep-

resentative of the perspective on the process that the researcher is studying. Thus there may be significant ethnic, gender, religious, cultural, generational, or class differences in perceptions of a process that the researcher should consider before conducting the research. For instance, I had asked a person who was of Asian Indian descent to do the second interview with the time-series cards. The person agreed, but at the time of our interview said that he could not arrange the cards because in the arranged marriage system of Indians (even many in the United States), there is no courtship process.

Make sure that the initial interviews are semistructured and focus on the process in question.

Use two coders to analyze the interviews from the pilot sample, and make sure that they code for the key features of the process (e.g., critical, required actions; contexts; kinds of things exchanged; emotions; values). Once the pilot sample interviews are coded, come up with a list of events or actions that includes no more than thirty events at most, and preferably fewer than twenty. Too many events will strain the goodwill and cognitive capacities of your informants for the second phase of the research. Have a camera, tape recorder, yarn, and scissors ready for each interview. The yarn and scissors are optional, as you may have other means of distinguishing discrete from continuous variables, or you may decide to ignore this distinction. However, I believe that because one is studying processes, it is important to consider the variables as process or continuous variables as well.

Finally, I think it is very important to test your initial analyses of what constitutes a prototypical or normative cultural model of the process by asking a third sample to select the most normative time series of a process from among a set of different versions of the process. This tests the validity of your research.

Table 19. Schematic view of timeline events and orienting terms

Instant Attraction	*Commitment*	*Getting to Know*	*Date*	*Deep Conv*	*Kiss*	*Sex*	*Meet Friend*
Being Infatuated	n/a	Honest	Fear	Infatuated	Being excited	Joy	Cooperate
Physical Attraction		Insecure		Honest		Insecure	

Meet Family	*"I Love You"*	*Plans*	*Dev Friend*	*Economic*	*Move In*	*Getting Married*
Cooperate	Need to be together	Infatuated (M)	Joy	Cooperate	Honest	Honest
	Honest	Honest (M/F)	Comfort	Fighting	Communicate	Commitment
	Joy	Joy		Trust	Commitment	Comfortable
	Commitment	Insecure			Trust	Trust
		Future		Honest	Best friends	Fighting
		Cooperate			Dependent	Best friends
					Routines	
					For granted	

9

Participant Observation

Participant observation is the only method I know that enables the researcher to get close to the realities of social life. Its deficiencies in producing quantitative data are more than made up for by its ability to minimize the distance between the researcher and his subject of study (Gans 1976, 59).

While doing fieldwork in the village of Kutali, Sri Lanka, I gradually became aware of the fact that few marriages actually fit the models of arranged marriage that had been presented in the literature on Dravidian marriage.[1] I had read all about arranged marriages and the dowry, and I had expected the marriages in Kutali to fit this model, which had been written about as if it were a Durkheimian "social fact" by all researchers prior to the 1980s. Indeed, 162 of 174 marriages in Kutali (93 percent) had been arranged (this constituted the entire population of Kutali at the time of the research, 1980), and all of them had included a dowry. Nevertheless, to discuss most of these marriages as fitting the arranged-dowry marriage model described by South Asian and Sri Lankan authors, as I will show, would belie the realities and complexities of most of these marriages. What is particularly interesting in the remainder of this chapter is to discover how participant observation, particularly as it contrasts with the quantitative data on marriage, can lead to a surprising, more complex, and yet more *realistic* picture of village marriage

practices. By a "realistic picture," I mean something that makes human sense.

I am going to spare the reader a literature review on South Asian arranged-marriage practices because that is not what this chapter is about. But below I will give you the basic schema of marriage that I had imagined occurred in Sri Lanka (as well as in South India):

> The preferred marriage is between cross-cousins—either father's sister's child (FZS-on or D-aughter) or mother's brother child (MBS or D). The father of the bride meets with the father of a prospective groom and suggests a marriage. The bride's father usually initiates before his daughter attains menarche or just after; the groom is usually older and a cross-cousin. If the two fathers are serious then there is a cycle of meetings often mediated by village leaders, in this case the Trustee of the village mosque and the village ***Imam*** (religious leader) as this is a Muslim community. Negotiations are primarily over the dowry. An astrological forecast is also done. If everything is arranged the two will marry, a dowry is given to the groom (though any land that is transferred remains in the name of the bride) and that's pretty much it. (De Munck 1996)

A key to this model is that the marriage is a transaction between two families, arranged through the parents; the groom and bride have no influence over whom they marry.

After a year in Kutali (I lived there for three years), I asked Adam Marikar (the most respected village leader and elder) how marriage choices were made. Now, Marikar was, at the time, in his sixties, and he was a wise and witty man who had been the village *trustee* (head administrator of the mosque). He was one of my key informants. His response was as follows:

> Anyone who loves a woman will definitely marry that woman because he is going to live with her and not with her father. The man can either elope or persuade the mosque officials to hold the marriage ceremony.
>
> Although it is preferable to have the father's consent, if the father does not agree then it can't be helped. The most important thing is that the Muslim religion strictly prohibits sexual

> intercourse before marriage. If this fact comes to light, then the girl's family will be more interested [in a marriage] because their reputation is at stake. They will go the boy's family to discuss the matter. Nevertheless, if the girl's family is poor they can't go to the boy's house for fear that they will demand too large a dowry. Therefore, they must somehow encourage the boy [to marry the girl] . . . Although parents arrange marriage, the couple must like each other . . . Without affection, no marriage takes place.

His response resonated with much of the ethnographic information I had already accumulated, but which I hadn't been able to coalesce into a picture. If Marikar had told me this earlier, I wouldn't have been able to "play" with his comments and understand how it pertained to real-life betrothals. It would have been "pearls before swine." But after a year in Kutali, I not only understood its ramifications, but could follow its lead and test out Marikar's comments through interviews and case studies. Aside from this, Marikar would not have spoken so freely and given me such information at an earlier time. In fact, I had recorded his comments when I'd asked him how marriages took place, six months previous to the above commentary; he had said,

> The father of the daughter causally asks about a possible marriage; if there is agreement they meet two or three times in the presence of *marikars* [also the name of mosque officials] who help with negotiating the dowry; after the dowry is agreed upon the village *lebbai* [folk priest] is asked to determine an auspicious *nekam* [day] to hold the wedding.

This description lacks the detail, irony, and complexity of the previous account, though strictly speaking all that he says is accurate. Participant observation, as Douglas Raybeck (1992) has noted, is all about establishing close relationships. I imagine that all anthropologists with years of fieldwork under their belts will remember and recount stories of their relationships and adventures with their friends and kindred in the field. While these relations may be temporary and fictive, and even a kind

of charade, they are substantive and real at the time. Consider the four years in college: are those relationships with dorm mates and classmates any less real because the period is bracketed? Or what about a one-year love affair? Fieldwork, for the anthropologist, is a limnal situation which arouses strong emotions and strong anxieties, and it gives rise to a great sense of exhilaration when one is accepted into a community (at least by some members). A **limnal situation** is a situation in which one is in a nonordinary context and has a marginal status—partially insider and partially outsider, neither real nor false but rather something in-between. It is a little like being a college student because as a student one is neither a full adult nor a teenager, and it is a temporary condition. Unlike the college student however, the ethnographer is usually the only "student" in the field. It is in this limnal situation that the ethnographer must control his or her anxieties and learn to be comfortable and acquire cultural competency in order to respond, feel, and think as would a member of that culture in various situations. I have gone on too long here. But it is a tremendous undertaking, and its benefits to research are partially represented in the comparison of the two comments by Marikar, and my understandings of them.

In what follows, I want to describe how romantic love affects real-life marriage choices in the village. I will use some case-study material to show that mate selection is not based just on a cultural logic or model, but that it is a dynamic, contingent process in which individuals usually follow their own desires, within sociocultural constraints. We are not automata acting in the behest of structure, nor are we live wires acting only in terms of our interests and desires. We are strange chemical mixtures that nevertheless act in fairly predictable ways. Participant observation opens the analytical door to the possibility of trying to understand human behavior in context and in all its gory messiness, rather than as words, observations, strings of words, or some other third-order, desiccated representation of humans as acting creatures.

Participant observation is the primary method used by anthropologists who do fieldwork, and it distinguishes anthropology from the other social sciences. The remainder of this chapter

is organized as follows: (1) a discussion of the advantages and limitations of participant observation; (2) a description of procedures for coding cultural processes; (3) a description of romantic love as it influences arranged-marriage choices; (4) presentation of a case study of an elopement; and (5) a discussion of the pitfalls of participant observation.

Participant Observation Is Just "Hanging Out": Advantages and Limitations

Is participant observation a method? I never used to think so. Discussions of it by anthropologists were usually vague and unsystematic. A method is anything but "vague and unsystematic." Participant observation was, I thought, just academic jargon that falsely exalted "hanging out"—anybody could do it. I was, in fact, told by many anthropologists that participant observation was just a matter of "swim or sink." As if taunting me, Russ Bernard (2006) entitled a subsection of his book on anthropological methods "Hanging Out." He states that **hanging out** is a skill, and that it is what anthropologists do to gain trust and rapport. I could see the latter, but not the former (i.e., that it is a "skill").

William Whyte (1984), a famous sociologist who did ethnography in the streets of Boston, notes that his key informant, Doc, admonishes him to "Go easy on that 'who, what, why, when, where' stuff, Bill. You ask those questions, and people will clam up on you. If people accept you, you can just hang around, and you'll learn the answer in the long run without even having to ask questions" (303). My assistant, Mr. "Singer" Muthulingham, told me the same thing, advising me not to always go out with a set of questions at the ready: "People will be glad to answer questions once, but if every time they see you, you are with your notebook and asking them questions, they will begin to flee when they see you." For a Westerner socialized into the concept that "time is money," who considered "hanging out" to be something lazy people (that is, "losers") did, and who was taught, more or less, that fieldwork spans a limited period of time, in

which you are supposed to collect bundles of data—especially exotic, thick accounts of "everyday life"—it was, in the beginning, impossible to just "hang out." I wanted to be working, to be "doing anthropology." Only slowly did I learn how to "hang out" and be a human being, rather than donning the role of "the anthropologist of my people." Raybeck (1992) uses the apt metaphor of swimming and "getting below the surface" to describe participant observation. Participant observation, Raybeck suggests, humanizes the relationship between the anthropologist and villagers by making the anthropologist "vulnerable."

Hanging Out

Hanging out is really the only way to gain entry into the **backstage** life of a society or group that one is interested in studying. Only through systematic, daily hanging out does one build up friendly and informal relationships with members of the community. Conversely, only through hanging out do a majority of villagers get an opportunity to watch, meet, and get to know the anthropologist outside her or his "professional" role. "Backstage" is a theater metaphor that contrasts with "frontstage": *backstage* refers to the informal area of life, and *frontstage* to that which is displayed to the public, where everyone is on his or her best behavior. Participant observation allows entry to the backstage of life.

One hangs out in order to observe and meet people, to have pleasant conversations, and to socialize. You should not carry the obtrusive badges of your profession (e.g., a camera, a tape recorder, or, nowadays, a notebook computer). A pocket notebook and pen are fine—they don't need to be used, and they are not "foreign" or "prestige" items. You must remember that you are not going out just to collect data. You cannot develop intimate relations with people if you always interact with them in your professional role as "data gatherer." You need to demonstrate that you have an interest in them as friends and acquaintances, and convince them of this. This means going out to public places and being prepared to stay out a relatively long time.

In peasant communities like Kutali, the cycle of work is based on the seasons. It is periodic, with weeks of intense activity followed by weeks of relative idleness. (See also Johnson 1975.) Except during periods of intense activity—at the beginning and end of cultivation cycles—adult male villagers hang out much of the time, while women are busy every day collecting foodstuffs, washing clothes, cleaning, collecting firewood, making mats, bathing and caring for children, and preparing meals. Men could be found hanging out at a number of places: at one of the five major shops in the village, at the junction where the bus arrived three times daily, at the mosque, at the river or public wells where they bathed daily, or on the verandahs of houses. Kutali is a nucleated village with an elliptical configuration, and it takes no more than twenty minutes to walk from one end to the other; thus, it was easy to visit each of these primary spots daily, if one were so inclined. However, there were a few hanging-out spots where I felt most comfortable, and I typically stayed at these whenever I went by them. I did not have a "program for hanging out"; rather, I would pass a spot, someone would wave, I would have a cup of tea, and that would be that.

The Stages of Hanging Out

There are three distinct stages to hanging out. By "distinct," I mean distinct—but only after the fact. Each stage was marked by a very different pattern of feelings and interactions with locals. Ideally, one moves from a formal, intrusive, and incompetent beginning stage to an intimate, welcomed, and competent end stage.

The first stage is the **stranger stage**, and it is characterized by showing up, when appropriate, at public places or homes. During this stage, villagers tried to teach me their language, with the associated gestures and intonation patterns. I learned informal social etiquette, names, faces, and personalities. I became aware of the patter and pattern of social interactions. People became familiar with me and were less taken aback when I showed up. Ultimately, during this stage, they began to expect my presence

and became used to it, though never ignoring me and always altering their behavior. Nevertheless, during this stage, I became somewhat competent with the cultural geography of the community. That is, I began to have a picture in my mind of what people did, where they did it, and with whom. Conversely, villagers began to understand and respond to me as a person rather than as a carnival act or a rich man with deep pockets.

The second stage is the **acquaintance stage**, where researcher and villagers become familiar with one another. Let me give a concrete example of this stage. About three months into my stay in Kutali village, I was walking down the main dirt street. As I rounded a bend that led to a center of shops, I could hear an argument going on. When I came into view, everyone stopped "dead in their tracks" for a brief moment; it was as if they were literally frozen in time. Abruptly, everyone returned to what they were doing before they saw me: the antagonists continued to curse and shout, and the spectators continued to urge on whichever antagonist each was siding with. I had become a **familiar** and was no longer a stranger. This was one of those exhilarating moments in research where you understand that participant observation cannot be rushed and is its own reward.

In the second, acquaintance, stage of hanging out, I began to acquire greater language and cultural competency. More than that, I began to develop friendships with some people (many of whom remain close to this day). I had discovered certain comfort zones and had begun to understand some of the nuances of personalities and the characters in the community. In the acquaintance stage, the researcher and villagers begin to recognize each other as individuals, with particular quirks and characteristics. During this stage, the researcher is accepted as part of the audience at the various public arenas in the community (though not necessarily liked).

In the final stage, one is now a "competent familiar" and can initiate actions and respond reflexively to the actions of others. One has friends and has a "place" in society that is recognized by others. This is the **intimate stage** of hanging out, where villagers and ethnographers have accumulated a mutual history and a repertoire of experiences, and where they think of each

other as individuals rather than as social identities. You now have obligations and responsibilities in the community, both as a member of the community and, more specifically, to those people who are friends or (if any) "fictive kin."

Hanging out is not all there is to participant observation. Raybeck notes how he volunteered for guard duty in the Malaysian village where he worked, in order to become more integrated into the community. Many anthropologists provide transportation, give English lessons, clean and bandage wounds, and participate in the same work, religious, and leisure activities as do the members of the community. For example, I offered free English lessons, cleaned and bandaged wounds, and, in emergencies, gave villagers rides to the hospital on my 1956 Java motorcycle.

Participant observation also requires that one take discreet notes of observations and interpretations. I always carried one notebook with me and had a second, parallel notebook that served as a more personal diary of daily events. The first notebook was the official one in which I had a list of questions that I wanted to answer. Usually these consisted of a series of formal survey questions on a particular subject (e.g., "How do you find a spouse?" "How do you acquire more land?"). On occasions when there was a major event—such as a wedding or exorcism—and during the harvest period, my time was spent observing and asking questions. My second notebook was a diary and also a kind of commentary on the first notebook. For example, if I were attending a wedding or interviewing villagers about a particular topic, I would keep the primary data in the first notebook, and later I would write down observations, personal opinions, and other things in the second notebook. This kept the first "official" notebook clean and relatively uncluttered with extraneous material.

The Advantages of Participant Observation

Participant observation has three distinct advantages over other methods: it allows access to backstage culture, it allows for thick

description of a society or group, and it provides opportunities and a means for reporting on unscheduled sorts of behaviors and events. Each of these advantages is discussed below.

As discussed above, the term *backstage* is taken from the theater; and it is meant to suggest that what happens backstage makes what happens on the frontstage possible. Goffman (1959) was perhaps the first to adopt these terms to study how people alter their behaviors as they move between various backstage and frontstage arenas of social life. Frontstage behavior is what is normative, the expected and conventional behavior meant for public viewing. Backstage behavior is meant to be hidden from the public eye; it occurs "behind the scenes," and only intimates participate in it or can witness it. The key advantage of participant observation is that it provides access to the backstage arenas of social life.

A goal for most sociocultural anthropologists is to write an ethnography of the community or group they have studied. An ethnography consists of a thick description of life as lived and interpreted by members of the study group (Geertz 1973). **Thick description** refers to the ethnographer's goal of describing behaviors, intentions, situations, and events as they unfold in the lives of—and in the eyes of—the informants. The anthropologist works as a cultural translator, using participant observation for learning the meanings of another culture and translating these meanings into "standard Western culture."

Also, there are sociocultural events that can only be studied through participant observation. Particularly, I am thinking of unforeseen and unscheduled events (Frake 1964): responses to natural disasters such as droughts and tsunamis; conflicts; statistically deviant behaviors and occurrences; or the impact of new state policies, innovations, and so forth. A simple example of an unscheduled event is the following: One night I was told of a secret "forced" wedding that was about to take place between a bride and groom who had sought to elope but who had been caught. I was woken up in the night and asked to attend the secret wedding. Another occasion was when a group of important Muslim dignitaries from all over South Asia were visiting the village, encouraging a revitalization of orthodoxy Islam (de

Munck 2005), at a time when an old man had died. The custom of Muslims is to bury the dead as soon as possible, but the villagers did not want to do this, as the dignitaries were sleeping in the mosque and would inevitably witness the funeral procession and see how poor the villagers were. I was invited to a secret meeting. It hardly needs to be mentioned (does it?) that neither of the above two events could have been observed through any other method.

The Disadvantages of Participant Observation

To obtain the trust and sympathy of a community, so that community members will be sympathetic to your work, takes time and commitment and cannot be faked. To be able to decipher and translate both backstage (i.e., informal, not visible to strangers, and intimate) and frontstage (i.e., public) information requires a high degree of competency in the meaning systems of a given culture. Acquiring both cultural competency and mutual trust takes more time and skill than most anthropologists possess. Many important social and cultural events, such as political contests and funerals, are public and are often available through the media, so that developing intimate relations in order to gain access is simply not necessary.

There is also what I consider the "skeleton in the closet" of most ethnographers. Unless one is already fluent in the language of one's informants, it is unlikely that the anthropologist can ever speak the lingua franca of one's informants fluently. For instance, though I was in Kutali for three years and no villager spoke English (except a schoolmaster who spoke only a smattering), I still did not learn either Sinhala or Tamil (the two languages villagers spoke) well enough to carry on a conversation at anywhere near the level of fluency of a native. Learning a language is not simply knowing how to speak the language, but it is also a matter of knowing all the connotative meanings of words—that is, learning the cultural knowledges and histories associated with terms and phrases. For instance, when I say to friend who is considering leaving her job, "a bird in the hand is

worth two in the bush," she knows immediately that I am suggesting she stay with her current job. A conversation requires cultural knowledge as well as linguistic knowledge. To acquire both is very difficult and takes time.

Furthermore, ethnographers do not just choose key informants as if all the villagers were lined up shouting, "Choose me!" The ethnographer is also "chosen" by someone who likes and will help him or her. You can't make a person your key informant if he or she doesn't want to play that role. Key informants are a necessity for a thick description and for writing about culture, but they are not suitable for hypothesis testing or for asserting a causal model as social fact. Most ethnographic research is derived from the information of key informants. It is for this reason that participant observation is frequently disparaged as a scientific method. Even strong proponents of participant observation consider it to be "merely" description. Spradley (1979, 30–31) writes that ethnographies are about description and about laying the groundwork for building theory and hypothesis testing. Similarly, Golden (1976, 16) classifies "field studies" as "exploratory" studies upon which one can formulate theories and hypotheses. Confirmation of theories and hypotheses grounded in the statements of key informants can only come through methods based on sampling procedures.

I do not believe that this needs to be the case. One can extend the number of "key informants" one has. Furthermore, my argument in this book has been that participant observation follows more quantitative and systematic qualitative data-collection techniques. Participant observation, if done right, validates and gives breadth and dimension to one's theories and hypotheses. This does not imply that one cannot develop good causal models through participant observation. Indeed, participant observation may be the best way to develop good, verifiable causal models. However, such models are always "exploratory" until they are verified with empirical data gathered through a representative sample of the study population. *Ethnography requires both participant observation and systematic data collection.*

Writing Up Field Notes

As mentioned earlier, I used two notebooks at a time, numbering them by date and sequence (e.g., Books 1 and la, March 4–10, 1990). Book 1 was my "official" field book, containing all my field jottings, maps, diagrams, interviews and observations. Book la was a memo book and contained my "unofficial" mullings, questions, comments, quirky notes, and diary-type entries.

I also used index cards to index and cross-reference materials from both books. Indexes are arranged in terms of headings such as conflicts, gender, jokes, religion, marriage, kinship, men's activities, women's activities, and so on. Each day's notes are indexed by book, page number, and a brief descriptive phrase. Thus, if I am interested in conflict between Muslims and Sinhalese over land, I would look for the "conflict" index cards and search under the interethnic and/or land-dispute subsections.

Coding Procedures

Participant observation involves writing down what people say and do in a given context at the time of the event (or just after). Because one can easily be overwhelmed by too much data, it is important to develop a coding procedure for targeting, selecting, and organizing information.

Werner (1989a, 1989b) describes a useful "contact tree" method for keeping track of interviewees in the field. The *contact tree* is a simple diagram in which you first list your initial contacts and then branch out from there, as they introduce you to other informants or contacts. This method can also be used to graph any other relevant parameters. For example, I used a numbering and naming system to identify conflict cases. This allowed me to keep track of the aggregate number of conflict cases and the sequence of events, or at least my records on these events, for each case.

I divided conflict cases into beginning, middle, and end stages. The beginning stage describes the triggering event and

its immediate ramification. For example, if X sets fire to Y's house and Y goes out to search for X and the two have a huge fight, this is recorded as the beginning stage. The middle stage consists of the subsequent marshaling of resources, recruiting of allies, and strategic move-making. The end stage marks the end of the conflict case, either through the recognition of a winner or loser, a negotiated settlement, or the conflict simply running out of steam.

Beginning, middle, and end stages are often imprecisely marked. Stage codes are important for apprehending patterns in the flow of events that comprise a conflict process. For example, the escalation of a conflict may be preceded by a period of intensive and successful recruitment of allies. Events are recognizable in terms of the moves that actors make. A **move** is any recognizable action taken by a protagonist or ally to move the protagonist nearer to his or her goal. Moves involve the use of resources to overcome obstacles or to place obstacles in the way of one's opponent(s). In romantic love and mate selection, a move by the couple may be for the woman to tell her mother whom she wants to marry. The mother then makes a move by telling the father, who then makes the "official move" by making an offer to the prospective groom's father. One should be alert to backstage as well as frontstage (official) moves as they are, by design, not obvious.

In the context of marriage and romantic love, the lovers need to recruit allies and use what resources they have available. If the researcher can discover these resources, they should be discerned in notebooks with a little *r* or big *R* to note the degree of importance. Remember, these codings are always contingent. One does not know if, in fact, it is a big resource or little resource until later; but it is important to make initial codes and assessments. Since allies are a type of resource, they are connected to an *r*/*R* by a hyphen; so one can have "R-h's mother" (meaning the resource is the husband's mother, with the capital *R* indicating that this is an important ally). Resources are marked within the stages in the marriage process in which they are used or recruited.

When there is a conflict, as there often is in love marriages, protagonists face and attempt to overcome obstacles. These obstacles are usually the lack or loss of a resource, or a resource controlled and used by the opponent. When obstacles were apparent, they were included in the above string at the appropriate stage. Big obstacles were signaled with a capital *O*, and minor ones with a small *o*.

The emphasis in participant observation is on individuals as motivated agents, moving and manipulating personal, social, and cultural resources to gain their objectives. Obstacles and allies also make visible the social constraints, and show how one's informants overcome or maneuver within these social constraints. The analyst's job is to understand the reasons for the actions of the main actors involved in the cultural process (in this case, marriage choices). Coding procedures are employed to evaluate and select the information you think is important enough to record. A coding procedure allows you to create a mental guideline targeting the type of data you need to attend to. Without one, your focus is likely to waver, and your field notebooks will be the written analogue of zapping between TV shows. This does not mean you cannot code-switch, or "zap," but that you need to always have a methodological "home" to return to. Coding procedures are also, to paraphrase Levi-Strauss, good to think with. Like grammar, codes are rules for organizing symbols into larger and more meaningful strings of symbols. It is important—no, *imperative*—that one construct a coding system, not because the coding system represents the "true" structure of the process one is studying, but because it offers a framework for organizing and thinking about the data.

Marriage in Kutali

In this section I hope to show how quantitative data, interview data, and case studies are used interchangeably to conduct participant observation and to obtain a deeper understanding of how love marriages are arranged in Kutali.

As I previously noted, marriage choices become visible to the public when dowry negotiations are initiated. The dowry negotiation is a formal and public proceeding, and "love" is never mentioned during these negotiations. Villagers consult specialists to assess whether or not the couple is sexually compatible according to their astrological charts. A visible, formal display of parental authority and a wedding procedure according to Muslim custom are usually presented to the public. Love is nowhere present in these formal and public displays before, during, or after the wedding ceremony. As noted previously, some 93 percent of all marriages in the village conformed to the arranged-marriage model. What, then, of romantic love?

First, villagers recognized romantic love as a "natural" human motive. Also, they understood romantic love to be naturally connected to sex and to an irrational passion for one person. For example, one woman said she had a "mad love" for her present husband. Another woman, alluding to her husband, said that she felt "as cotton drawn to fire" whenever he came near to her (she quickly noted that this was before they married, not now!). A father came to me and told me that he had reluctantly married his son to the son's present wife. He said that had he ignored his son's love for her and married him to the woman that he (the father) preferred, his son might have committed suicide by drinking anthrax (a common form of suicide for despairing lovers in Sri Lanka). Another parent said that if he had not bent to the wishes of his daughter, she might have committed adultery and destroyed the reputation of her family. Thus, sons and daughters do have resources at their disposal that they can use (or at least that their parents fear they will use) in order to marry their preferred mates. These "confessions" and intimacies that villagers shared with me could only have come through an extended stay and through acquiring their trust, not through asking questions.

Villagers recognize the importance of love as a motivation that, in practice, is often included in arranging a marriage. However, the arranged-marriage model is predicated on the dowry and kinship, not on love. So how do villagers reconcile these two opposing forces? The arranged-marriage model is the

marriage scheme that is publicly visible, but it is obviously not all there is.

I had data for 18 of the 22 marriages that occurred during my residence in Kutali. Of these, 11 (61 percent) were between first crosscousins, as befitting the pattern of the village, but (and this is the important part) 14 (78 percent) were between couples who stated that they had loved each other before the initiation of a formal marriage proposal. Only a minority (4, or 22 percent) stated that their marriages were formally arranged and they had held no prior affection toward each other. Assuming that "love is blind," how do these crosscousin love marriages occur?

My goal as a participant observer was to discover the answer to this question. There is an "institutionalized license between cross-cousins to play with each other" (Yalman 1962, 566). I found much evidence of this. A group of teenage boys explained to me that bathing in the river or at public wells with a classificatory sister or mother was embarrassing, but that they searched actively for a location where their *mathinis* (female crosscousins) were bathing and would bathe there as well. One boy recounted how his female crosscousin had nicknamed him "snake charmer" when his sarong accidentally(?) slipped to his ankles while he was bathing in her presence.[2] On another occasion, a number of teenage boys were chatting on my porch when the crosscousin of one of the boys walked past. He flirtingly called out to her, "*Nelle saman*" ("Good stuff"). Without hesitation, she turned to look at him directly, smiled, and said, "*Sanghu mark.*" (Sanghu was the brand of the highest-quality sari.)

Male circumcision rites provide another institutionalized setting for crosscousins to acknowledge each other as potential mates. Male circumcision usually takes place when the boy is between twelve and fifteen years of age. After being circumcised, the boy rests at home for a week, lying on a mat under a sari-rigged, A-frame canopy intended to protect his penis from contact with clothes while at the same time keeping it concealed. During this week, his *mathinis* are expected to visit with gifts of sweets and inquire into the health of their "friend." The symbolism is too obvious, I hope, for me to have to explain. I have many more such cases, indicating that there is an absence of sanctions

against the social mingling of crosscousins in public places while they are growing up. In fact, the evidence above suggests that socializing between crosscousins of the opposite sex is encouraged.

When I interviewed the couples who said that they were lovers prior to marriage, they explained how they made their feelings known, either directly or indirectly, to their parents (*note:* these would be coded as "moves"). Wives said that they had directly communicated their preferences for a spouse to their elder sisters or mothers, never to their fathers. Husbands, on the other hand, usually said that they had confided in the village marriage broker, Adam Marikar. Marikar had then made a suggestion regarding each such man's mate to the man's father. All informants noted that their affections had invariably been communicated to their parents. One woman explained, "I slowly, slowly put it [her affection] to my mother who slowly put it to my father who then approached my father-in-law." Let me now move on to a case study of love marriage between crosscousins.

A Case Study

A fifteen-year-old boy, Abu Salli, and his fourteen-year-old *mathini* Miriam were caught by a villager locked in an embrace. This information became public knowledge. Subsequently, the couple informed their parents that they wanted to marry. Abu Salli's family were irate because both families were poor, and the boy's family worried that he would not receive an adequate dowry and would therefore remain poor all his life. The girl's father, in contrast, was exuberant over the possibility of the marriage, and told me that he had encourage Miriam to flirt with Abu Salli. He explained that he was very poor, and that otherwise it would have been impossible for him to provide his other four daughters with dowries. Thus, flirting and "getting caught" in flagrante delicto or otherwise was a tactic by the prospective bride's family to pay less of a dowry than they would otherwise.

An elopement was planned: Miriam's elder brother was to accompany the couple to the eastern seaboard town of Batticaloa, where they were to marry. On boarding the bus at the Kutali junction, they were met by Abu Salli's elder brother and mother. A fight broke out, and Abu Salli's brother stabbed Miriam's brother. While Miriam's family was away at the hospital, Abu Salli's three brothers burned down Miriam's family house. The police arrived, took the three brothers to jail, and arrested one of them for arson. No one was ever arrested for the stabbing. Shortly thereafter, Miram and Abu Salli were married according to custom. Had you attended the wedding ceremony, you would not have suspected anything untoward, and you would have recorded this as one more typical crosscousin arranged marriage. The couple were given a small dowry of half an acre of land, on which they live.

Conclusion

Marriage in Kutali is not a simple thing: even in the more traditional times of the 1980s, love marriages predominated. The above case study shows that, on occasion, couples and their parents are willing to risk great conflict and endanger their reputations in order to marry for love— and that this is often motivated by an economic, rational calculus, not just "blind love." We have also shown that there are social mechanisms in place to prevent too many disruptions. The social structure predisposes crosscousins to meet, flirt, and become attracted to each other, so that even when they do not love each other, people are psychologically "primed" to marry their crosscousins.

Contrary to conventional wisdom, participant observation shows that romantic love does play a significant role in mate selection in Kutali, and probably in marriage choices throughout the rest of the Dravidian region of South Asia. This study, even though it is only one case (that is, one village), suggests that we reexamine the traditional model of arranged marriages in South Asia and do not just explain away contemporary "love marriage" as a modern-day phenomenon imported from the West.

The traditional norms for mate selection—that is, the way mates "should be" selected by the official cultural model—elide the importance of love. The kind of thick description presented here, and presented in almost all ethnographies, cannot be gleaned when one is a stranger to the community.

The quantitative data was important to putting some cultural parameters on an analysis of mate selection based just on romantic love. After all, informants stated both that they married crosscousins and that they married for romantic love. How could this be? I have attempted to answer this question by relying on participant observation mixed with more "systematic" modes of data collection.

Pitfalls of Participant Observation

When I was a graduate student I worked in the main cafeteria at the University of California, Riverside. I worked there for five years. It was enjoyable, I got free food, the pay wasn't bad, and the job entailed no stress. In my fifth year, I was put in charge of the dishwashing and custodial operations for a conference. I no longer remember what the conference group was, but I vividly remember the "disaster" that struck. The conference consisted of a couple hundred participants. It was the last night of the conference, and it was their grand finale. There was a fine dinner, a main guest speaker, and dessert. The story is about the dessert that we were to serve.

Cafeteria workers had scooped vanilla ice cream into small pewter goblets while others were collecting the main plates. The ice cream was on trays ready to go; but there had been a miscalculation. The main speaker was apparently so entrancing that many people were eating much more slowly than the cafeteria bosses had estimated. The ice cream was beginning to melt. Panic set in. The ice cream was to be put back in the freezers. But because it had all been scooped out and the goblets were on large trays, we could not put it back fast enough, and, in any case, there was not enough room. I remember well how my pulse rate went up and I was caught in the panic. All of a sudden I became

(for lack of a better word) "unhypnotized," realizing that it was just vanilla ice cream, not the "end of the world." Yet our concern had been so intensified and focused on this single event that it took on great significance. Participant observation can be like that. Those people you meet and the events that happen become special events, unique—they take on a greater significance than they warrant. This is magnified because it is a limnal situation for the ethnographer, and, of course, the quality of one's dissertation is the basis for one's future career—professor or hot-dog vendor. It must be remembered that your presence does not give more meaning to what happens in a particular setting than your absence (unless your presence triggers some reaction or events). Be careful not to consider the ethnographic events that you have witnessed as "special" in the same sense as the melting vanilla ice cream. For instance, all villages at all times are in a "time of change," just because nothing is static. Are these "special" times? Yes, perhaps. But all times are special. This sort of intensification of attention and magnifying of the significance of the events that you have recorded in the field is the biggest pitfall there is. You must simply take stock, find ways to dehypnotize yourself, and not take yourself too seriously.

Notes

1. Kutali is a pseudonym that I have used in almost all of my published writings on this village. It aptly means "friend" in Tamil, the lingua franca of the Muslim villagers.
2. People always bathe in some kind of clothing, males in sarongs and females in saris.

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Conclusion

Fieldwork is more difficult than lab work because the researcher is searching for cultural practices at the same time that she or he is affecting and participating in those very same cultural practices. Though one is entangled in a web of subjectivities, including one's own, fieldwork is not just a milieu of subjectivities. The researcher is not a "fly in the bottle" who cannot get out of subjectivity. Our subjectivities, just like those of a child, will mesh, over time, with those of others in our behavioral environment. Our perceptions of the world will correlate with others. If this meshing and correlating did not occur, we would be unambiguously insane and incapable of coping in the "real world." We do, in fact, stop at red lights; we eat in restaurants; if we want light, we flick a switch; we have jobs; and we act, think, and feel in ways that are very predictable and usually do not raise eyebrows. It may be true that we are in Wittgenstein's bottle, but (1) this is truer in our own culture than in others; and (2) we are not flies in closed bottles. The great variety of shared patterns in thought, behavior, and feelings, not only among members of a culture but also among members of very different cultures, suggests not subjectivity but objectivity, or at least the convergence of subjectivities on an objective understanding of the behavioral and physical environment. This grand, underlying predictability of humans

underlies the basis of statistical analysis and the reliance by social scientists on questionnaires.

The goals of ethnography are to describe cultural practices; to formulate rules; and to predict, and be able to offer explanations for, **situated actions** (Moerman 1969, 466). Research methods are a dynamic, flexible plan of action that guide field research and allow the researcher to be both in and out of the action. Research is dynamic because it starts with collecting simple data and graduates to collecting and analyzing more complex, contextualized types of data. Field-research designs must always be flexible, because the field is a morass of contextuality that cannot be controlled by the researchers. The research design is a plan of action that allows the research to know (to paraphrase Gauguin) "where they came from," "where they are," and "where they are going."

The research design and methodologies advocated in this text fit a particular paradigm (that is, a personal orientation and understanding) of science and of doing science that may be counterintuitive for many. For me, the most problematic, important, and difficult aspects of research are those that address the question of situated action directly, and not through observation, questionnaires, or even interviews. I have advocated an approach that broadly goes from what people say to what people do, and from reductionism to holism and perhaps back again. People often say something like "anthropology isn't rocket science" or "participant observation isn't a method," meaning that anyone can do it. I heartily agree: anthropology isn't rocket science, it is much more difficult. Rocket science ain't anthropology. Second, participant observation is, I believe, an emerging method. There are no paradigmatic or canonical texts that tell us how to do participant observation. As one of my graduate professors said, "You either sink or swim." We need to seriously put our heads together and come up with a flexible schedule for doing participant observation and integrating it with other, more reductionist, methods.

I have attempted to provide one such example of this integration between contextualized and decontextualized methodologies in this book. I have argued that participant observation

(as a holistic approach) is a method that should be integrated with and, in fact, should evolve from reductionist methods. A feedback system should develop between constrained, question-answer sorts of data-collection methods and participant-observation methods. I do not think participant observation can evolve on its own; it always needs the direction and the distal, bird's-eye view that more structured methods of analysis offer.

In conclusion, my argument is old. It is reminiscent of Gambiasta Vico's *Scienza Nuova*, written in 1725, in which Vico argues against the hypothetico-deductive method of Descartes, which, he says, ignores (or renders as illusory) phenomena (such as human-situated action!) that cannot be expressed in, or deduced by, mathematical formulas or logic. Our challenge is to develop a new science of situated actions that link those actions to thought and feeling, and that microcomplex to macrocomplexes. We need a flexible science that is still scientific. By *scientific*, I mean that the methods for data collection and analysis are explicit and made available to the public, and that these methods are systematic. We need a science that connects, or works to connect, what happens in the head (i.e., the *mental*) to what bodies do (i.e., the *phenomenal*); and that connects the individual to the collective.

The goal of this methods book is to take stock: to offer a general blueprint for doing fieldwork. As I hope I have made clear, there is also an ambitious theme threaded through this book that outstrips its inherent limitations. It is vital to the well-being of anthropology that we do not give up on methods, but that we put our efforts together to get ourselves out of the stone age of social science, and to develop a new science.

Glossary

acquaintance stage: With reference to participant observation, the stage at which the researcher and villagers begin to recognize each other as individuals, with particular quirks and characteristics. During this stage, the researcher is accepted as part of the audience at the various public arenas in the community (though not necessarily liked).

backstage: A theater metaphor that is apt for participant observation. Backstage contrasts with *frontstage*, where backstage is the informal area of life and *frontstage* where people are on their best behavior. Participant observation allows entry to the backstage of life.

closed questionnaire: A set of questions for which the researcher has provided all response options and asks the informant to choose among them.

cognitive saliency: The importance and usefulness of a term. The more important the term, the quicker and easier it is to recall.

constrained (successive) pile sort: A pile sort in which informants have been told how many divisions they should make. For instance, you can ask them to sort the cards into two piles. When you ask them to continue sorting each division into two more divisions, it is called a *constrained successive pile sort*.

contextualized data: Data that takes into account the situatedness of actions. It is obtained in natural settings through unstructured and informal eliciting techniques.

contrast set: Two terms that are in symbolic opposition to each other, and typically anchor opposite poles of a gradient. Usually, each of the terms automatically implicates its contrast. Contrast sets are enormously useful for generating samples and questions, and for analysis. They are used in the analysis of a multidimensional scaling.

cultural domain: The set of all the things, at the same level of abstraction, that are said to belong together. A cultural domain is an emic rather than an etic category; it is one elicited and given content by the members of a culture.

dependent variable: The hypothesized effect of the independent variable(s) on the targeted variable. (It is also called the *outcome variable*.) Changes in the values of the dependent variable are hypothesized to be caused by prior changes in the independent variable(s).

dimension: An attribute of a continuous or gradient variable. Antonyms such as good-bad or active-passive serve as the poles of a dimension. *Terms*, or the values a variable takes, are usually ordered according to the underlying logic of the dimension. For instance, good-emotion terms grade into neutral-emotion terms, and these grade into bad-emotion terms.

directive force: The force that a particular motivation has to instigate behavior.

dynamic image: A mental image that is used to "see" what is observed. A dynamic image is what you expect to see at a given moment.

ecological fallacy: The error of interpreting variations in environmental settings as variations among individuals.

Einstein's injunction: If you can't explain your theory to your grandmother in a way that makes sense to her, then you don't know what you are talking about.

emic: Derived from the perspective of the informants themselves and how they make meaning. The goal of participant observation is to understand, feel, and see the world from

the point of view of the members of the culture you are living among.

ethnocentric: Expressing a prejudicial value judgment of members of another culture.

etic: From the expert's point of view. *Etic* may also describe the informants' point of view. *Etic* usually refers to a decontextualized perspective of culture that is intended for comparative analysis.

exhaustive: Encompassing all the salient values that the variable can take.

external validity: The relationship between your methods and the external world that they are attempting to represent. A problem with questionnaires is that the methods may have high internal logic. Survey questions, and the situation in which they are answered, create a great gap between method and actual behavior or thought; thus, questionnaires usually have high internal but low external validity. Participant observation has high external but often low internal validity.

face validity: A common-sense association between two variables.

familiar: A researcher who has arrived at the stage of participant observation, after having been a *stranger* to a community, at which he or she is recognized. Once the researcher has arrived at this stage (a desired result of participant observation), locals no longer alter their behavior significantly as a consequence of the researcher's presence.

hanging out: The only way to really begin to do participant observation. It is doing anthropology by not doing anthropology, but by simply being human. Forget about getting something done; just be with the people in the community, and don't be "at work."

holistic ethnography: A form of ethnography whose objective is to describe all the "major" cultural practices of the members of the community.

hypothesis: A statement that can be falsified and that establishes a relationship (usually causal) between two variables.

independent variable: A variable that causes something to happen. (You can have more than one!)

indicator: The actual value of a variable that is being measured. Thus, *male* and *female* are the indicators of the variable "gender."

institutional review board (IRB): A board that reviews research proposals to see if they meet local, state, and federal requirements for conducting ethical research. Every school, and every state or federal office, that oversees research projects has an IRB.

internal validity: The relationship between the logic of your research design and the actual methods used. In other words, do the questions in a questionnaire seem to be linguistically and logically reasonable means to get at your intended goal? If yes, then there is high internal validity.

interval variable: A type of variable for which the distance between two values is measurable, but for which there is no absolute zero point. You cannot really tell the ratio between two different values of an interval variable. For example, an IQ of 80 is ten points higher than an IQ of 70, just like an IQ of 160 is ten points higher than an IQ of 150; but you cannot reasonably say that a person with a 160 IQ is twice as smart as a person with an IQ of 80.

intimate stage: With reference to participant observation, the stage at which villagers and ethnographers have accumulated a mutual history and a repertoire of experiences, and where they think of each other as individuals rather than as social identities.

limnal situation: A nonordinary and usually temporary situation, such as being an ethnographer. The ethnographer feels like, and is perceived as, "a stranger in a strange land."

loading: A pattern of coefficients that correlates with an overall, aggregated measurement model. A *loading* is the score that represents the fit of one individual's profile of answers to the aggregated profile of answers. In factor analysis, a loading is the correlation of any individual's answers on the particular factor.

methodology: The system of actions that are taken to implement and test ideas about the real world in the real world. The goal

of methods, like virtual reality, is to simulate real-world processes and phenomena.

move: In the context of participant observation, any recognizable action taken by a protagonist or ally to move the protagonist nearer to his or her goal. Moves involve the use of resources to overcome obstacles or to place obstacles in the way of one's opponent(s).

mutually exclusive: Describes values (for an indicator) that cannot overlap. For example, a male cannot also be a female.

nominative variable: A variable whose values indicate qualitative and not quantitative differences. These variables measure only difference, not the amount of difference. All other variables indicate the amount of difference. Gender is a good example of a nominative variable.

observation*:* The compromise you make between what you expect to see and what you actually see. What you actually see is always mediated by a *dynamic image* (i.e., a mental model) of what you expect to see.

open-ended questionnaire: A set of questions that allow input from the respondent (or informant), independent of the options provided by the researcher.

ordinal variables: Rank variables that tell you the ranking of variables relative to each other. For example, you can say, "I like apples more than oranges," but the distance between your liking for apples and your liking for oranges is not the same as the distance between your liking for grapes and your liking for grapefruits.

orientations: Values, beliefs, behaviors, and emotions triggered by events in a process.

pretest: A run-through of your research design to see how each stage of it works. No research should be conducted without pretesting. There is a feedback cycle between pretest and research design, so that the design is modified after a pretest.

primary experiences: Direct sensory experiences, as opposed to secondary experiences, which are always mediated through print (e.g., books, journals), computer simulations, film, and so forth.

primitive axioms: Unexamined belief statements that are the elemental building blocks of a theory, and which are the greatest *threat to validity*.

PRMG: Pattern recognition, motivation, goal. This sequence of concepts constitutes a theory about human behavior.

probe: In long interviews, actions taken to signal or encourage the interviewee to continue speaking. "Uh-huh" and a head nod are both probes.

problem-oriented ethnography: A form of ethnography that consists of focusing on one particular problem and excluding, more or less, everything that doesn't directly impact on that problem.

process: A sequence of seamlessly linked events, which are contained by a clear initiating event and a terminal event. The events of a process are arrayed in a logical and culturally recognizable evolutionary sequence.

prototype: A mental image or model that has the most salient features of a typical member of a category. Prototypes are cognitive models used to represent a category, and the goodness of fit of each member of that category is usually identified in terms of its relative semantic distance from the prototype.

ratio variable: The best type of variable, in terms of the accuracy with which you can measure differences between values (and between different ratio variables). Ratio variables, like age and test score, have a meaningful zero point, and you can exactly measure the difference between two values. So a test score of 8 is exactly twice as great as a test score of 4.

sampling frame: A set of criteria used to select individuals to include in your study, from whom you will generalize to the target population.

scale variable: Really an *ordinal variable*, but one that is analyzed as an interval variable. Typical is the five-point Likert scale: *strongly agree*, *agree*, *neutral*, *disagree*, *strongly disagree*. There is controversy over whether a scale variable is an ordinal variable or an *interval variable*.

significance test: A statistic that measures whether a relationship is likely to happen by chance or not. If not, then the results are significant. The conventional measure of significance

is if some relationship is only likely to happen by chance 5 percent (.05) of the time.

single free pile sort: A pile sort in which informants sort the cards only once, into as many divisions as they want.

situated actions: What ethnographers study. All actions are embedded in situations, that is, in contexts. The ethnographer takes account of the action in its context rather than in itself.

stranger stage: With reference to participant observation, the first stage of "hanging out." It is when you just show up and your presence alters the behavior of locals. You acquire some understanding of the cultural geography of the community—that is, what people do, where they do it, and with whom.

symbol: Anything that reflects shared interpretive meaning (or meanings depending on context) to members of a culture.

thick description: A term, coined by Clifford Geertz, that refers to the ethnographer's goal of describing behaviors, intentions, situations, and events as they unfold in the lives of (and in the eyes of) one's informants.

threat to validity: Any possible reason why your analysis may not be correct. Usually the threats to validity lie in unwarranted generalizations from data or unexamined primitive axioms in the interpretation of the data.

unit of analysis: A person, or some discrete indivisible property, that can be treated as an entity and can therefore be said to have concrete attributes (which can vary across those units). Individuals are often the units for psychological analysis; communities are often the units of analysis within nation-states and are also used for crosscultural analysis.

unobtrusive measures: Data-collection techniques that do not necessarily involve deception but which are employed "naturally" and "nonreactively" via observation or participant observation.

values: The different measures a variable (or its indicators) can take.

variable: Any concept that can have more than one value. Gender is a variable because it can have a minimum of two values: *male* and *female*.

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Dr. **Victor De Munck** is chair and associate professor in the Anthropology Department of SUNY, New Paltz. He has conducted fieldwork in Sri Lanka, Lithuania, Russia, and the United States, and has authored or edited four monographs, four edited volumes, and fifty-two articles. He has also been editor-in-chief of *Reviews in Anthropology* and received a National Science Foundation grant to conduct a comparative study of romantic love in the United States and Russia. In 2002 he received a Fulbright teaching and research award to Lithuania, and he was awarded a second Fulbright to Macedonia for 2009, where he will be researching inter-ethnic, Muslim–Christian marriages