Culture and Individual Adaptation
Research Report I – Brazil 2001[*]

William W. Dressler
Professor of Anthropology, The University of Alabama
Colaborador de Pesquisa, Universidade de São Paulo-Ribeirão Preto

Introduction

The influence of culture on individual biopsychosocial adaptation has been a question of considerable importance in anthropology and other social sciences; however, theoretical and methodological difficulties have limited the ability of researchers to directly investigate these processes. The aim of the research described here is to examine cultural, social-psychological and dietary influences on individual differences in physiological and psychological adaptation. Individual differences in physiological and psychological variables (such as blood pressure, serum lipids, anxiety and depression) have most often been attributed to individual-level factors such as diet or individual psychological differences in the experience of stresses. The research described here, drawing on innovations in culture theory and methods, has as its primary aim a more precise examination of culture in the process of individual adaptation.

Current theories in cognitive anthropology define culture as a series of overlapping cultural models. Cultural models are schematic cognitive representations of socially significant phenomena that are shared by individuals in a social group. These cultural models construct meaning for individuals and serve a directive function for individual behavior. But the locus of cultural models is not, strictly speaking, the individual. While individuals do carry these mental representations, what is important to discover are the ways in which these representations are shared within a society. It is this distribution of shared representations that gives culture its aggregate quality.

There are three sources of variation in cultural models. First, individuals will incompletely share cultural models of any cultural domain. Second, there may be different (even competing) models of any cultural domain. And third, individuals may, for a variety of reasons, be limited in their ability to act on shared cultural models and hence engage in the behaviors or adopt the beliefs defined by those models.

The term "cultural consonance" has been proposed to describe the degree to which individuals in their own behaviors approximate shared cultural models for beliefs and behaviors (Dressler and Santos 2000; Dressler and Bindon 2000). Cultural consonance fills a gap in culture theory by linking cultural models to individual behavior, while at the same time retaining a concept of culture that that can account for the aggregate quality of culture. The basic hypothesis is that higher cultural consonance in specific cultural domains will be associated with better

physiological and psychological adaptation, as measured by lower blood pressure, a more favorable pattern of serum lipids, and fewer symptoms of psychological distress. A long intellectual tradition in research on health and disease suggests that individuals who are marginalized relative to their own cultures suffer a chronic stress that can be associated with the risk of disease (Cassel, Patrick and Jenkins 1960; Henry and Cassel 1969). The concept of cultural consonance and associated methods for measuring the concept provide an opportunity to directly test this hypothesis. Furthermore, it is hypothesized that cultural consonance will moderate the associations of social-psychological stressors with adaptation outcomes, and that both the direct and interactive associatiions will be independent of diet and demographic variables.

This research is being carried out in the city of Ribeirão Preto, Brazil. Ribeirão Preto represents an appropriate research site because of the considerable amount of sociocultural and dietary variability within the community. The research is being conducted in three stages and will be carried out in four socioeconomically diverse neighborhoods. First, unstructured interviewing will be used to elicit the cultural domains of relevance to individual adaptation. In Brazil, it is anticipated that these salient cultural domains will include: the family; the successful lifestyle; patterns of social support; national identity; and, food and foodways. Second, cultural consensus analysis will be used to test for shared knowledge and understanding in these cultural domains. Third, data on individual psychobiological adaptation; self-reports of behaviors and beliefs relevant to the cultural domains; social-psychological stressors; and, dietary, body composition and demographic variables will be collected from a representative sample. Cultural consonance will be measured by assessing the match between cultural consensus models of cultural domains and individual self-reports of beliefs and behaviors. Data will be analyzed using appropriate statistical models to test hypotheses both of direct and interactive associations with adaptational outcomes.

The aim of this report is to describe the initial steps in this research process (carried out from May to September, 2001), namely, the elicitation of elements of cultural models relevant to individual adaptation, and the examinatiion of the sharing of, or cultural consensus in, those cultural models. These results were used to develop the survey interview schedule.

In order to elicit and examine elements of cultural models, we used the research methods of cognitive anthropology, specifically as those are detailed by Weller and Romney (1988). These methods enable an investigator to move through a series of stages or phases. At each stage, data collection is specified more precisely, based on information collected in a previous phase. Thus, iteratively, a more precise understanding of a particular cultural domain can be achieved. Ultimately, cultural consensus analysis can be used to determine whether or not there is a shared cultural model for that particular domain.

<u>Selection of Domains</u>

Clearly, a critical issue here is: what domains are important with respect to understanding individual adaptation? What are the sorts of cultural models in a society that, if the behaviors or values prescribed by those models are unable to be realized in individual lives, lead to distress and disease? The issue here is one of identifying the cultural domains of most relevance to the research problem.

Briefly, many years of research have shown that cardiovascular disease risk is in part dependent on two broad sets of social factors: socioeconomic status and social relationships. An anthropological approach to this problem (in one sense) requires that these broad social

categories be realized in research in "experience near" terms, i.e. what do socioeconomic status and social relationships mean in the everyday lives of people? In previous research we have found that socioeconomic status can be seen in everyday lives in terms of a person's "style of life," specifically in terms of material possessions and leisure activities. The aspect of social relationships most important for cardiovascular health is social support, or the network of people on whom a person can rely for help in times of felt need. Our prior research has shown that: (a) there are broadly shared cultural models of a preferred lifestyle and of a pattern of seeking social support in communities; and (b) the greater the degree to which individuals approximate the behaviors described in these models in their own lives (or achieve higher cultural consonance), the better their health status (Dressler and Dos Santos 2000).

One aim of the current research is to examine more carefully the cognitive structure and cultural salience of these domains, and of course, the first question is: are these relevant domains within the community? This question is really a double-edged one. It could be argued that these domains should only be examined if there were evidence that stresses associated with these domains are viewed as health risks within the community studied (curiously, both a conventional ethnoscience approach, and a more recent and radical critique of social science, would posit this as an initial criterion for inclusion of a domain in a study). A less stringent criterion is that any domain studied for the purpose of examining the cultural dimensions of health risk associated with that domain must simply be salient or meaningful within the community.

The latter criterion is the important one for my purposes. We want to understand how everyday life is culturally/cognitively organized within the community, because it is the day-to-day stress (or "wear-and-tear") of living a (culturally) meaningful life that we hypothesize to be important with respect to health risks. Our aim is not to arrive at some comprehensive description of "the actor's" or an "emic" view of stresses in the local community, but rather to examine domains that are salient both in terms of theory and previous research on sociocultural factors associated with cardiovascular health, and in terms of their meaningfulness to members of the community. It is in this sense, then, the true aim of the research is to evaluate the *cultural* dimension of social-psychological risk of disease. Therefore, we must examine known factors ("known" in the sense that theory and previous research identify these as important), while at the same time examining how these factors are culturally shaped within the community, remaining sensitive to what is or is not culturally salient within the community. This is best thought of as a complicated balancing act, reconciling theory, previous research, cognitive salience and cultural salience. Elsewhere, this has been termed "the ethnographic critique of theory" (Dressler 1995).

The issue of just what a cultural domain *is* is a complicated one (or, alternatively, deceptively simple). At its most basic, however, a cultural domain is some topic or subject found in everyday life that people talk about. In Brazil, without doubt, people talk about their lifestyles. They use that term, as do advertisers. Usually, however, you hear Brazilians talking about lifestyle in terms more comprehensive than possessions/leisure, terms that include their work, food habits, family life, and even religious beliefs. The strictly emic category of style of life is therefore too comprehensive for our purposes, since, as some informants say, lifestyle "includes everything." Such a comprehensive category may be both cognitively and culturally valid, but trying to describe peoples' lives in such terms does little to advance the social scientific aim of determining which parts of "everything" are more or less important in defining, in this case, cardiovascular disease risk. Our working conception of lifestyle includes just material possessions and leisure activities. This is consistent with the emic category, while at the same time being consistent with previous research and social scientific theory.

Social support is also a useful emic category, although people tend not to use that specific label. People do commonly speak of the network of social relationships that they can rely upon for help, for assistance, and to get things done.

One of my interests in this research is to expand the cultural domains examined. I chose to include the domain of "the family" for several reasons. First, there is a long tradition in research on stress and disease focusing on the family as, alternately, a source of stress or as a source of social support (McCubbin, et al 1998). Second, the family is an extremely important cultural category in Brazil, evidenced both by the topic of conversation in everyday life, and by the attention given the family by Brazilian scholars (DaMatta 1985).

Another domain chosen for investigation is "national identity," which, in theoretical terms, can be thought of as a part of a more comprehensive "social" or "cultural" identity. My interest in this arose from the subtle reintroduction of a "national character" view of culture in various places in the literature [including Hess and DaMatta (1995) on Brazil; Nuckolls (1998) in his recent book on culture; and Caulkins' (2001) work on ethnic identity]. There is also some work on social identity and health. The hypothesis here is that an individual's cultural consonance with a cultural model of national identity will be associated with health status.

The domain of national character is clear and evident in Brazil. People consistently discuss what it means to be Brazilian, and the similarities and differences between Brazilians and other people.

The final domain chosen for study is food. Oths, Carolo and Santos (in press) conducted a study in which they showed that there are systematic differences between social strata in Brazil in the ways in which food and related behaviors (e.g. shopping in different stores, going to different restaurants) are associated with social status or prestige. The cultural domain of food is an important one in Brazil, and is of obvious importance in a study examining cardiovascular health. We chose to examine the cultural domain of food, building on the work of Oths, et al.

Therefore, we chose for more specific investigation the following cultural domains: (1) social support; (2) style of life; (3) the family; (4) Brazilian national identity; and, (5) food.

The Research Team

The team that carried out this work consisted of two research assistants, both with undergraduate degrees, and included the participation of a psychology professor who was interested in learning the techniques. We began with a full week of training, which included an introduction to the theoretical orientation of the research, and then emphasized the research methods of cognitive anthropology. During active data collection, the team would meet and plan a set of interviews. Then, the research assistants would spend, typically, 3-5 days collecting data, at which point we would re-assemble. It then became my responsibility to analyze the data collected. During another series of meetings we would discuss the results and use those results for the next set of interviews. Any success of this work is due to the intelligence, insight and perseverance of this research team.

With respect to sampling respondents, major emphasis was placed on obtaining a diverse group, in the sense of selecting individuals from different age groups, occupational groups, and with different educational levels. The majority of respondents were employees of Hóspital das Clínicas, the teaching hospital/tertiary care center for the Faculty of Medicine, USP. Lower class respondents consisted primarily of unskilled workers, including cleaning staff and kitchen

staff. Lower middle class respondents consisted primarily of clerical and skilled maintenance staff. Middle to upper middle class respondents consisted of nurses, physicians, and upper-level administrators. Some (but not all) respondents participated in each set of interviews.

In the following description of the research, I will present the work in the temporal sequence in which it was conducted. I think that this gives a better flavor for what we actually were doing. In the initial planning of the research we examined only the domains of lifestyle, social support, family life, and national characteristics. The domain of food was added at the end of the research, so I will wait to discuss that research at the point at which it was added to the work.

Phase 1 – Free lists

The free list technique is the first step in examining cultural domains. In free listing, a respondent simply names all of the members of a particular domain. In this research, both social support and style of life were broken down into two, more specific categories. For social support these categories were the kinds of problems that people seek social support in response to, and the kinds of persons from whom one would seek social support. For style of life, these categories were material possessions/consumer goods, and leisure time activities. Additionally, two free lists were generated for the family, due to the specific questions asked (see below). A sample of 43 persons was interviewed. Throughout all of the interviews, the research assistants noted (in a special space provided on the interview) any interesting comments that the respondent made.

The first free list was obtained in response to the question: "What are the problems that frequently cause persons to seek help?" A total of 55 different problems was generated. The most important, used by at least 20% of the sample, were as follows (the original Portuguese terms are given along with my translation):

1. Falta de dinheiro – Lack of money
2. Doença – Illness
3. Problemas de relacionamentos – Relationship problems
4. Problemas na família com drogas ou alcoól – Problems in the family with drugs or alcohol
5. Depressão – Depression
6. Problemas com os seus filhos – Problems with your children
7. Problemas de violencia – Problems of violence
8. Problemas no seu trabalho – Problems with your work

The second free list was generated in response to the following question: "When people have these problems, in general to whom do they turn for help?" This generated a smaller list of terms (35). There were 6 terms used most commonly (by 30% or more of the sample). It should be noted here that we collapsed a number of specific terms in order to generate these categories (e.g. specific family members were collapsed under the category of "family"). These were as follows:

1. Amigos – Friends
2. Família – Family
3. Um médico ou psicologo – A physician or psychologist
4. Uma pessoa religiosa – A person connected with your church or faith
5. Um colega – A person with whom you work
6. Uma especialista na área – A specialist for that problem

Material possessions/consumer goods was the next domain investigated. The following question was asked: "What material possessions/consumer goods does a person need to live a good life?" This resulted in a list of 80 items. Thirteen items were named by 20% or more of the sample. In order to have a sampling of both frequently-chosen and more rarely-named items, the following 21 items were selected for further investigation:

1. Casa própria – House of one's own
2. Carro - Car
3. Geladeira - Refrigerator
4. Televisão - Television
5. Fogão - Stove
6. Roupas boas – Nice clothes
7. Boa comida – Good food
8. Móveis - Furniture
9. Aparelho de som – Sound system
10. Telefone - Telephone
11. Dinheiro suficiente para gastos – Money enough for extras
12. Microondas – Microwave oven
13. Computador - Computer
14. Dinheiro pela escola – Money for education
15. Máquina lavar roupas – Washing machine
16. Vídeo - VCR
17. Freezer - Freezer
18. Jóias - Jewelry
19. Acesso a Internet – Internet access
20. Uma chácara – Second home in the country
21. Celular - Cell phone

The fourth free list was generated in response to the following question: "What activities do people typically engage in in their free time?" Sixty-six items were generated, with 13 named by at least 20% of the sample. Again, I thought it important to sample both the most salient and somewhat less frequently-named items. The following 21 items were selected:

1. Assistir TV – Watch TV
2. Praticar esportes – Practice sports
3. Ler - Read
4. Ir ao cinema – Go to the movies
5. Fazer visitas – Visit people
6. Ir ao shopping – Go to the mall
7. Viajar - Travel
8. Ir ao clube – Go to a private club
9. Caminhar - Walk
10. Ir ao barzinho – Go to a bar
11. Descansar - Rest
12. Dormir - Sleep
13. Ouvir som – Listen to music
14. Ir ao teatro – Go to the theater
15. Ir à igreja – Go to church
16. Estudar - Study
17. Usar a internet – Use the internet

18. Ir à festas – Go to parties
19. Conversa com amigos – Converse with friends
20. Almoçar fora de casa – Eat lunch out
21. Bingo - Bingo

Two free list tasks were used to generate culturally salient characteristics of families. In the first, respondents were asked to imagine a family that they admired, and then to list the characteristics of that family. In the second, respondents were asked to imagine a family that they did not admire, and then to list the characteristics of that family. The first question resulted in 89 positive characteristics and the second question resulted in 92 negative characteristics. For further investigation, the following list of 24 items was selected from the two free lists:

1. União - Union
2. Uma família que briga – A family that fights
3. Bom relacionamento – Good relationships
4. Desrespeito - Disrespect
5. Amor - Love
6. Tem vícios – A family with members that have addictions
7. Religiosa - Religious
9. Se ajudam – Help one another
8. Sem educação – Lacking manners
9. Honestidade - Honesty
10. Violência - Violence
11. Falsidade - Pretence
12. Uma família com firmeza – Strength to confront problems
13. Fazem críticas - Critical
14. Trata bem os outros – Treat people well
15. Egoismo – Self-centeredness
16. Família alegre - Happiness
17. Família trabalhadora – Hard-working
18. Família com diálogo - Communications
19. Compreensão - Understanding
20. Irresponsibilidade - Irresponsibility
21. Infidelidade - Unfaithfulness
22. Exploração - Exploitation
23. Família organizada - Organized

Finally, respondents were asked: "What characteristics are most important in defining a Brazilian?" This question generated 133 distinct terms. The first 14 were used by at least 10% of the sample. Again, to balance characteristics that are both widely and not-so-widely thought to characterize Brazilians, a list of 26 items was chosen that included both salient and infrequent items. These included:

1. Alegres - Happy
2. Adoram futebol – Love football
3. Hospitaleiros – Receive people well
4. Folgados – Trying to get something for nothing
5. Pacíficos – Pacific
6. Têm governo ruim – Have a terrible government
7. Corrupção - Corruption
8. Fartura de comida – Rich in food resources

9. Adoram churrasco e feijoada – Love barbeque
10. Trabalhadores - Workers
11. Batalhadores – Stand up to adversity
12. Preguiçoso - Lazy
13. Têm fé – Have faith
14. Adoram carnaval – Love carnaval
15. Deixam tudo para a última hora – Leave everything to the last minute
16. Adoram samba – Love samba
17. Humilde - Humble
18. Amoroso - Loving
19. Os ricos não pensam nos pobres – The rich do not think of the poor
20. Honestos - Honest
21. Solidariedade - Solidarity
22. Gostam de diversão – Fun-loving
23. Bom humor – Good humored
24. Flexibilidade - Flexible
25. Dão um jeitinho – Looking for a way around the rules
26. Levar vantagem – Take advantage

A general comment is in order here. Often free lists are used to provide an "exhaustive" list of terms included under a more general cover term, and then "all" of those terms are studied to define the relative meaning of the terms. I use quotation marks above because, typically, "all" or "exhaustive" refers to the terms used by "most" people, "most" being a term relative to the intent of the study. With exceptions (social support, lifestyle), the lists obtained here tended to be quite long and tended to have a low proportion of respondents using particular terms. Overwhelmingly, this was a result of the large number of synonyms that can be used in large and complex domains like the family. For example, for the concept of the family referring to a family that confronts problems (*uma família com firmeza)*, the following terms could also be used to indicate the same concept: *firme, esforço, cooperação, determinação, perseverança, resolvem,* and even, perhaps, *inteligente*. Within the research team we had long discussions of the free lists in which we, at times, lumped terms together, but our tendency was to avoid this in favor of detail. Paring down the list was then accomplished by sampling items that captured the range of variation in meanings present in the list.

This was important for two reasons. First, having a sampling of terms that both appeared frequently and that appeared less frequently would facilitate further analyses of the meaning of those terms by providing greater contrast. Second, in anticipation of the survey work and the operational definition of cultural consonance, we ultimately want to have terms that help to identify a person as living in a way similar to the cultural model, as well as terms that help to identify a person who is not living in a way similar to the cultural model. Therefore, sampling the range of variation in meanings was regarded as extremely important.

Phase 2 – Unconstrained Pile Sorts

In an unconstrained pile sort, a respondent is presented with, usually, a set of cards, each containing a single term or phrase that is included within that cultural domain. The respondent is then asked to sort the terms into piles, putting terms that are more similar to one another into the same piles. The respondent is instructed that there are no right or wrong ways to sort the terms, that our interest is simply in what the respondent thinks. In order to generate the cards for the task, mail-merge files were created in Word and these were used to print 2 x 4 shipping labels, each with one term or phrase. The labels were printed in 18-pitch type on an inkjet

printer, and then pasted onto 3 x 5 cards. This resulted in cards that were clear, clean, easily read, and that took advantage of the ability to print Portuguese special characters. Furthermore, respondents liked the cards a lot (many thought that they were *chique* or "chic").

The unconstrained pile sort is the simplest way to get a sense of the overall meaning of terms, while at the same time being able to use a large number of terms. It does, however, require literate respondents. This concerned me considerably, since Brazil has a large percentage of illiterate citizens. The research assistants, however, were confident that they could complete the lower class sample with respondents who could read *sufficiently well* to recognize the words and phrases on the cards (remember that this is not a reading comprehension task, but rather one in which the words only need be recognized). Given that one of the research assistants also taught an adult literacy class for the municipality, I was convinced by their arguments.

In the first phase of pile sorts, we included material goods, leisure activities, and family characteristics. After the free listing of social support problems and supporters, we felt that we understood the meaning of the domain: there are problems for which people seek the support of others. We therefore set that domain aside until the final set of interviews (see below). With the characteristics of Brazilians, due to the large number of terms, we waited to do the pile sorts because we wanted to very carefully select the items for sorting.

The relevant items for each domain were listed above. A sample of 16 persons sorted the items. Following sorting, a full square similarity matrix of terms can be calculated for each respondent. This matrix consists of each term arrayed in relation to every other term. When two terms appear in the same pile, there is a "1" in that cell of the matrix, indicating similarity. When two terms do not appear in the same pile, there is a "0" in that cell of the matrix, indicating dissimilarity. These matrices can then be averaged over all persons, resulting in the percentage of times each term appears with each other term.

This aggregate similarity matrix can be analyzed using multidimensional scaling (MDS) and cluster analysis to reduce the aggregate matrix to a 2-dimensional map of the distances between terms. Terms that are more similar in meaning appear closer together; terms that are more different in meaning appear farther apart. The degree to which the 2-dimensional array of terms is consistent with the original set of similarities is measured in MDS by a "stress" value. The higher the stress value, the lower the fit between the original and the transformed (i.e. 2-dimensional) distances.

Fig. 1 shows the MDS representation of the pile sorts of consumer goods in two dimensions (stress=.15). The items circled were items that grouped together in the cluster analysis. Basically, it appears as if one dimension of the MDS consists of a qualitative grouping of similar items. For example, the large group of items at the top of the graph represents both large items (e.g. a house) and items that are used by an entire household (e.g. a TV). At the right of the graph there is a group of items including what in Brazil are referred to generically as "eletrodomesticos," or appliances. In the lower middle of the graph items for information access are grouped. Finally, in the lower left, there is a heterogeneous group of items (i.e. "others").

On the basis of the array of the items, and on the basis of comments made during the interview, the other dimension of consumer goods appears to rank the goods according to notions of what a good life is. For example, a 27-year old woman who had not finished high school and who worked as a nursing assistant produced a grouping much like the one pictured below. She referred to the items in the lower left of the graph as "completely superfluous, that I put in the last place." The information access items in the lower middle were referred to as "things we can

live without, that are good to have but that you can live without." The items in the upper middle of the graph were identified as "fundamental things." And, the remainder of the items were referred to as "good for the house to have." Her pile sort appeared to order items from those at the top of the graph that were considered to be essential to a good life, to those that one would like to have, to those that are unimportant. Similarly, a 29-year old man, who had not finished high school and who worked as a technician simply made three groups: "1. What you need. 2. This you might want to have. 3. Things that are superfluous, that you don't need to live."

Fig. 2 shows a 2-dimensional representation of the similarities and differences among terms describing activities in one's free time (stress=.15). Again, one dimension of the array appears to represent qualitative differences among kinds of activities. For example, in the lower left there is a set of activities that can be done completely by oneself (resting, sleeping, listening to music, and watching TV). In the lower right of the graph are a set of activities that again are
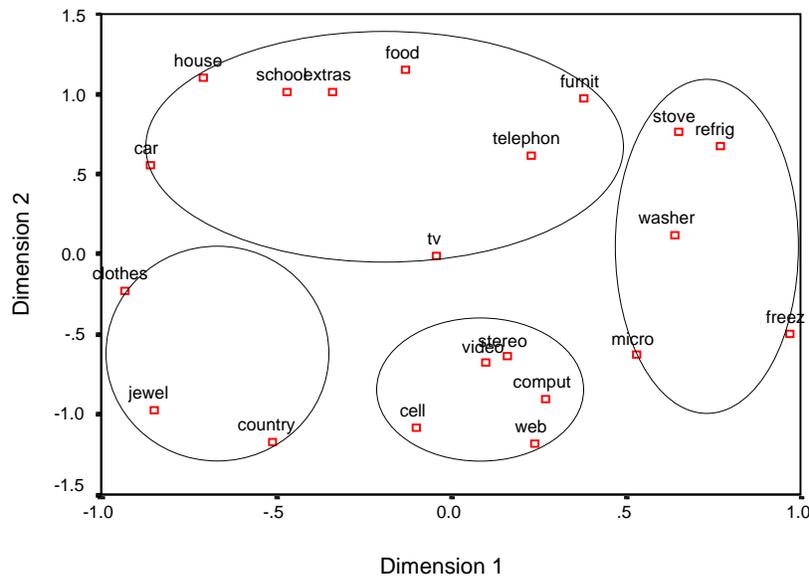
Fig. 1: MDS Representation of Pile Sorts: Consumer Goods

done alone, but that require a more active involvement of one's thinking (studying, reading and using the internet). In the middle of the graph are activities involving large, organized groups of people: going to the movies, the theater, to church, and practicing sports (something usually done in groups at clubs in Brazil). Finally, at the top of the graph is a group of items that involve being "out and about," usually with friends (going to bars, clubs, visiting, going to parties, traveling, going to the mall, and bingo). Walking is somewhat isolated at the left of the graph, while "conversing with friends" is practically in the middle of the graph.

In comments on the groupings, respondents tended to distinguish activities of an essentially social nature (e.g. going out to bars) from activates that resulted in self-improvement ("*formas de adquire cultura*"). Another common way of putting it was to refer to social activities in terms of "distractions" and the other activities as things one must, at times, do (e.g. studying and going to church). There were also, however, several respondents who referred to the social activities as essential to having a good life.

Fig. 2: MDS Representation of Pile Sorts: Leisure Activities

```
Fig. 3: HIERARCHICAL CLUSTERING OF FAMILY CHARACTERISTICS


                          D   E       H   T   A       R
           V   B I   I    E   X U     O T R R L     E   O
           C I V R N F R  S E P N A A N R A E E D C L F R
           R C I I F A R E R D L I J M E A B L G I O I I G
           I I O G E L E G E U O A U O S T A A R A M G R A
           T O L A D S S O S C R O D R T A L C E L P I M N

           1   1   2 1 2 1     2       1 1 1   1 1 2   1 2
  Level    4 6 1 2 2 2 1 6 4 9 3 1 8 5 0 5 8 3 7 9 0 7 3 4
  ------   - - - - - - - - - - - - - - - - - - - - - - - -
  1.0000   . . XXX XXX . . . . . XXX . . . . . . . . . . .
  0.9375   . . XXX XXX . . . . . XXX XXX . . XXX . . . . .
  0.9167   . . XXX XXX . . . . . XXXXXXX . . XXXXX . . . .
  0.9028   . . XXX XXX . . . . . XXXXXXXXX . XXXXX . . . .
  0.8917   . . XXX XXX . . . . . XXXXXXXXX . XXXXXXX . . .
  0.8750   . XXXXX XXX . . XXXXX XXXXXXXXX . XXXXXXX XXX .
  0.8438   . XXXXXXXXX . . XXXXX XXXXXXXXX . XXXXXXX XXX .
  0.8417   . XXXXXXXXX . XXXXXXX XXXXXXXXX . XXXXXXX XXX .
  0.8410   . XXXXXXXXX . XXXXXXX XXXXXXXXXXX XXXXXXX XXX .
  0.8358   . XXXXXXXXX XXXXXXXXX XXXXXXXXXXX XXXXXXX XXX .
  0.7917   . XXXXXXXXX XXXXXXXXX XXXXXXXXXXX XXXXXXX XXXXX
  0.7833   . XXXXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXX XXXXX
  0.7634   . XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXX XXXXX
  0.7064   . XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX
  0.5074   XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXX
  0.0396   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

Finally, respondents did pile sorts of family characteristics. This, however, turned out to be problematic in the sense that we had elicited good and bad characteristics. Respondents tended to attend only to those characteristics. The majority of respondents thus only formed two groups: good and bad. Those respondents who created more precise groupings were obscured by those who formed just two groups.

Cluster analysis is a bit more sensitive to the persons who create more complex groupings, however, and by examining how items are joined, it is possible to get a little better idea how respondents make choices about the grouping of items. Fig. 3 presents a graphical representation of the grouping of items from cluster analysis.

Again, it is clear at the bottom of this table that the overwhelming tendency is to create two groups. Still, there is a tendency, in the positive set of characteristics, to group affective items first (love, union, honesty) and to group relationship items (dialogue, good relationships, mutual understanding) separately. A separate cluster of family structure (confronting problems, organization, and, interestingly, religiosity) joins with these items later in the process.

With respect to negative aspects of the family, there is a clear tendency to group the more serious problematic behaviors (substance abuse, violence) separately from items that indicate a negative emotional climate (exploitation, egoism, disrespect), although again, these are ultimately joined in a large cluster of negative characteristics.

In comments during the pile sort, respondents linked items in a way similar to the cluster analysis. For example, some respondents said that if you have love in the family, then people will be honest with one another and feel more united. Or, dialogue and good relationships will lead to mutual understanding. This was also a tendency with the negative characteristics. For example, it was common for people to say that persons who were irresponsible would also tend to abuse substances, which in turn would lead to violence.

Phase 3 – Rankings, Constrained Pile Sorts, and Unconstrained Pile Sorts

In the next phase of the research, 34 respondents were interviewed. This phase was designed to do three things: (1) test specific hypotheses about the dimensions of meaning in the domains of material goods and leisure activities; (2) use a technique of constrained pile sorting with characteristics of the family in order to try to better understand the structure of that domain; and (3) use an unconstrained pile sort with Brazilian national characteristics in order to get a first look at the overall dimensions of meaning in that domain.

For material goods, as noted above, it appeared that the only significant dimension of meaning was the importance of the item for helping to create "a good life." Therefore, we asked respondents to rank the items in terms of the importance of the item "for living" (*para se viver*). Although the concept of "a good life" probably would have worked as well, there was concern within the group that even that was insufficiently neutral, so we opted for the more general concept. Respondents were asked first to sort the items into three groups of equal size: one group of items most important for living; one group of items more-or-less important for living; and, one group of items not important for living. Then, within each group, items are ranked individually from most-to-least important. This provides a complete ordering of the terms.

With the rank-order data, I could use the cultural consensus model (Romney, Weller and Batchelder 1988) to determine if there was enough similarity in the rankings in the group that we could: (a) make the inference that all of the respondents were drawing on a single cultural model; and (b) calculate a composite ranking to represent the group as a whole, and use that composite to predict placement of items on the MDS dimensions from the unconstrained pile sort.

The rankings reached consensus in the consensus analysis, with the ratio of the first to the second eigenvalue equal to 10.1, and an average competence of .79 (+/- .12). This justifies calculating a composite ranking. Next, this composite ranking can be use in a PROFIT (or profile fitting) analysis (Kruskal and Wish 1978; Handwerker and Borghatti, 1998). This analysis simply involves using the rankings as a dependent variable in a regression analysis, with the MDS coordinates from the pile sort as independent variables. This is both a straightforward and elegant way of determining if the distances in meaning between terms (assessed by the MDS coordinates) order the terms in the same way that the ranking does. If there is a high multiple correlation coefficient, then the differences and similarities in meaning among the terms is explained, at least in part, by the ranking of those terms along the dimension selected for study.

When the ranking of the lifestyle terms by their importance in having a life was regressed on the MDS coordinates from the unconstrained pile sort, the following result was obtained: multiple R = .93. In other words, the distances among the terms from the unconstrained pile sort almost perfectly account for the ranking of those items in terms of their importance in defining a good (or "decent" or "comfortable") life. Out of curiosity, I included the salience of each item from the free lists in this analysis. Salience is highly correlated with the consensus ranking of importance (r = -.78) and is predicted fairly well by the MDS coordinates (multiple R = .69). In other words, people mention things first that they associate with living a good life.

Next, the rankings associated with leisure activities were examined. It certainly would have been possible to also rank the leisure activity items by their importance in having a good life, since people used this criteria to describe their pile sorts; however, there was also the tendency for people to use, as noted above, the ideas of personal development and social life in describing the pile sorts. Therefore, at this fairly early point in the research, we used two sets of rankings. The first was in terms of leisure activities that contribute more or less to one's personal development. (Again, to obtain a complete ordering, informants first created groups of terms that could be ranked, and then ranked terms within the groups.) Consensus was achieved on this ranking (eigenvalue ratio = 4.58; mean competence = .66, +/- .20), although the consensus was not nearly as strong as the consensus for consumer goods. The association of the MDS coordinates and the ranking of personal development was fairly good, multiple R = .76, indicating that this is an important feature that people use to differentiate activities.

The next set of rankings for leisure activities was in terms of the contributions of those activities to social life. Given the stereotype of Brazil as, arguably, the most convivial society in the world, I fully anticipated there to be strong consensus on this ranking. In fact, there was not. This was one of the most surprising—and counter-intuitive—findings that I've ever come across in fieldwork. In order to try to unpack the meaning of this, I initially examined the consensus of the rankings within a couple of obvious subgroups (younger vs. older respondents, and people with more or less education), but these analyses were unilluminating. I then decided to cluster the respondents on the rankings, and then see if there was consensus within the clusters. The logic of this is a bit problematic, since cluster analysis, by definition, is going to create more homogenous groups. Finding consensus within those groups may be an artifact of the way they are formed. On the other hand, the homogeneity of clustered groups is a relative issue and will not automatically lead to consensus within those groups; that is still a separate question, even if you are tipping the scales in that direction. Most importantly, however, at this stage in data collection and analysis, such an exploratory approach is completely justified.

The cluster analysis of the social life rankings suggested two groups, one somewhat larger (Group 1, n=21) and one somewhat smaller (Group 2, n=13). And within each group there was consensus in the rankings (Group 1: Eigenvalue ratio = 6.74, mean competence = .73, +/- .11; Group 2: Eigenvlaue ratio = 5.0, mean competence = .65, +/- .16). When the consensus

rankings of the activities in terms of importance for social life were compared for each group to the consensus rankings for personal development, it became clear what was going on. The Group 1 rankings for social life are only modestly correlated with the overall sample rankings for personal development (r = .46). The Group 2 rankings for social life, on the other hand, are highly correlated with personal development rankings (r = .83).

It appears that Group 1 sees activities of personal development and social activities as two separate kinds of activities. Also, a PROFIT analysis of social life ranking regressed on MDS coordinates for leisure activates is fairly modest (multiple R = .50). For Group 2, personal development activities and social activities are not separate in this manner, and the social activities rankings are even less associated with the inter-term distances (multiple R = .42). In other words, personal development and social life are closely linked for this group. This is also apparent in respondent statements during the rankings task. For example, Group 1 ranks reading 12th in terms of social activities. Group 2, however, ranks reading 6th, with comments like: "Well, if I don't read and learn about things going on in the world, then I won't have anything to talk to anybody about." Or, "I must develop as a person in order to be socially involved."

Are these genuinely alternative models of leisure activities? These results by themselves are probably insufficient to draw that conclusion. Rather, it would probably be better to think of this as an interesting hypothesis. One methodological issue complicating any conclusion is that we did not vary the order of the rankings. All respondents ranked the items in terms of personal development first, and in terms of social activities second. The risk of contamination is, therefore, present. At the same time, if this occurred, it only occurred in a subset of respondents, which could mean that all we did was help to elicit this alternative model, but that the methods did not create it. Only additional work would unravel this point.
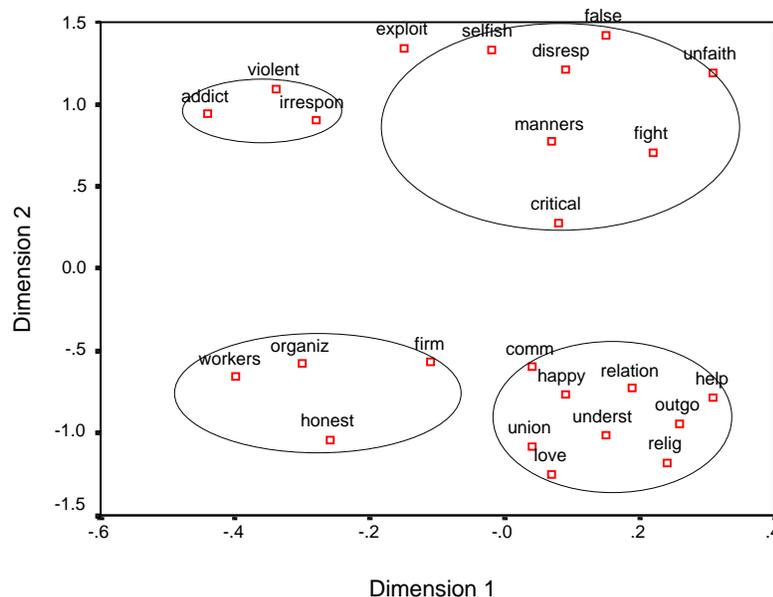

Fig. 4: MDS plot of constrained pile sort: family characteristics

The next task in this set of interviews was a set of constrained pile sorts for characteristics of families. Recall that the earlier unconstrained pile sort for family characteristics resulted in two undifferentiated groups of terms: good and bad characteristics. In the constrained pile sort, the

respondents were instructed to first group the characteristics into good and bad characteristics, and then within each of those groups to create at least two groups of characteristics (or more if they preferred). The MDS fit for this sorting task was quite good in two dimensions (stress=.04) and is presented in Fig. 4. The contrast between the negative characteristics at the top of the graph and the positive characteristics at the bottom is clear. The cluster analysis of the terms was, again, dominated by this contrast, although the order in which terms were joined in the clusters is instructive. The circled terms in Fig. 4 reflect this order in the joining of terms. Basically, the negative characteristics can be divided into those involving quite serious family problems, such as drug abuse and violence, versus characteristics that are still bad, but not quite so bad (e.g. disrespect or fighting—meaning arguing—within the family). The positive terms are divided into those reflecting the emotional climate and quality of relationships within the family (love, union, good relationships) and those describing the structure of the family (well organized, hard workers, confronts problems, and, interestingly, honesty).

Finally, Fig. 5 presents a 2-dimensional MDS model (stress=.05) of an unconstrained pile sort of characteristics of Brazilians. This was, by far, the favorite task among respondents, in two ways. Some of the respondents exclaimed (and enjoyed) how precisely these characteristics captured what it was to be a Brazilian. Others enjoyed being critical of the list, or at least parts of it, as mere stereotypes that were far from true. Either way, the respondents had a lot of fun with the task. As shown above, there are three clusters of descriptors. The cluster at the top of the representation are negative features, although, as the research assistants pointed out, negative features that can nevertheless be a part of daily life as a Brazilian. In the lower right are features that tend toward personality-type descriptors (e.g. hospitable, hard-working, peaceful). And, in the lower left are descriptors that are more like labels that are applied to Brazil as a culture, or perhaps more accurately, as a nation (e.g. happy, humorous, love football, samba and churrasco).

 At this point, as a team, we made several decisions on the basis of these results. First, with respect to the two dimensions of lifestyle, we decided that both could be subsumed under a single dimension of the degree to which the activities would contribute to having a good life. We did not obtain rankings of importance for the dimension of leisure activates, but it was apparent from the rankings that we did obtain that this would be a relevant dimension. The dimensions of personal development and social life, we suspect, combine to define the relative importance of a particular activity (something that we can test after obtaining ratings on a single dimension of value). This will enable us to obtain a single evaluation of material possessions and leisure activities under the rubric of style of life.

Second, with respect to characteristics of families, we decided that we needed to do a set of rankings, basically in terms of the importance of each characteristic in family life. For positive characteristics, this will be a ranking of the importance of these characteristics in having a family. For negative characteristics, this will be a ranking of the "gravity" of these problems in family life. Initially, I wanted to see if a consensus ranking of items can be obtained. If that were the case, then these rankings can be confirmed with a more conventional form of data collection in the consensus interviews.

Third, with respect to Brazilian characteristics, we decided to collect two sets of rankings. The first would be to determine the importance of the various characteristics in "really" defining what it is to be Brazilian. This task emerged from the dissatisfaction with the characteristics derived from the free list on the part of some team members (who felt that these were merely stereotypical descriptors, as opposed to "true" characteristics of Brazilians). These rankings will help to answer that question. The other set of rankings to be obtained consist of evaluations of characteristics on the part of respondents. This will help to answer the question of, for example,

the "*jeitinho.*" This could be both highly characteristic of Brazilian life and highly disvalued by people.

The analysis of these additional tasks will then be used, with all prior results, to construct the ultimate interview for assessing cultural consensus in these domains.
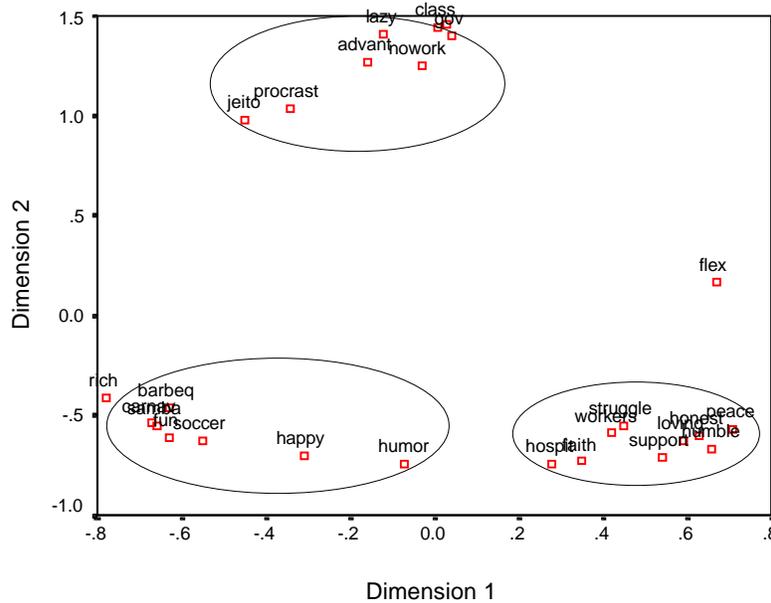

Fig. 5: MDS plot of unconstrained pile sorts: Brazilian characteristics

Phase 4 – Rankings

In the fourth round of interviews 22 people were interviewed. They were first asked to rank the family characteristics in two groups. For the positive characteristics, they were asked to rank them in terms of the importance of the characteristics for "having a family." For the negative characteristics, they were asked to rank them in terms of the seriousness of the threat to the family posed by the characteristics.

My aim here was to get an overall, single ranking of characteristics; however, we used the format we did because the negative characteristics are so overwhelmingly negative that we thought that the task would make no sense to the respondents without that initial division. To get an overall ranking of the characteristics, I assigned ranks 1-13 to the positive characteristics, and 14-24 to the negative characteristics. Technically, I think that this is inappropriate, but I nevertheless was curious about the results. When this set of ranks was analyzed using cultural consensus analysis, there was an overwhelming consensus (37.7:1, avg. competence = .91, +/- .03). This is, of course, artificially inflated by the two ranking tasks. When just the good characteristics were analyzed, the consensus was much more modest (3.5:1, avg. competence = .65, +/- .22). When just the bad characteristics were analyzed, there was no consensus.

These results are consistent again with the overwhelming polarity built into the juxtaposition of the positive and negative characteristics. During the task, respondents complained about how difficult it was to regard one or another positive characteristic as more important that the others. Similarly, aside from the separation between somewhat less serious (e.g. *infidelidade*) and

more serious (e.g. *vicios*) bad characteristics, respondents tended to think of the characteristics as just terrible.

Even though I don't think that the consensus among respondents when characteristics are lumped can be taken too seriously, I do think it useful to use the composite ranks from that analysis to estimate the overall ordering of the characteristics, at least at this stage of data collection and analysis. A PROFIT analysis shows that the ranking of importance/threat of the items is highly associated with the inter-term distances from the constrained pile sort (multiple R = .94). Again, this is probably somewhat inflated, due to the distance between positive and negative characteristics. At the same time, the rankings do differentiate somewhat among even the positive characteristics. For example, characteristics from each of the major clusters of good characteristics are combined in the orders, even though the greatest importance is accorded the characteristics of the emotional climate of the family. Also, a couple of the seemingly less grave characteristics are ranked with the more serious. So, this analysis suggests that the value attached to the characteristics can be ordered, and that this ordering of value explains a good bit of the overall differences in meaning among the terms.

In this interview, two sets of rankings were obtained for Brazilian characteristics. In the first, respondents ranked the characteristics in terms of how valid the characteristics are in defining the Brazilian people. In the second task, the respondents ranked the characteristics from positive to negative.

When the first set of rankings was analyzed using cultural consensus analysis, there was no consensus. I then clustered the cases on the rankings, and examined the consensus within the two largest subgroups. Within the larger subgroup (n=12) the rankings did not quite achieve the conventional consensus level (2.9:1, avg. competence = .57, +/- .15). Within the smaller subgroup (n=10), consensus was achieved (5.2:1, avg. competence = .60, +/- .22; the relatively low average competence and associated high standard deviation was due primarily to one respondent with very low competence (.14).

The meaning of these two results became much clearer with the analysis of the value attached to these characteristics. There was consensus on the value attached to the characteristics (13.74:1; avg. competence = .84, +/- .12). When these consensus ranks are compared to the ranks derived from the analysis of the validity of characteristics, for subgroup 1, the correlation of definition and value is r = .88. For subgroup 2, the correlation of definition and value is r = -.48. In other words, subgroup 1 ordered the characteristics as defining Brazilianess in virtually exactly the same way that they ordered the characteristics in terms of value (i.e. "What I value = true Brazilianess"). Subgroup 2 not only separated the two sets of rankings, they tended to assign lower value to the characteristics that they regarded as most important in defining Brazilianess. Put differently, subgroup 1 consists of cultural cheerleaders, and subgroup 2 consists of cultural critics.

In discussing these results with the research team, two main hypotheses were generated. First, the results did not surprise the interviewers. They had a sense that some respondents were either ignoring the instructions to rank the items in terms of their importance in defining Brazilians, or that they were incapable of understanding the distinction between characteristics that define and characteristics that are valued. Second, and, in reality this is not entirely orthogonal to the first hypothesis, there may simply be two models of what it is to be Brazilian. In one model, "*o país do carnaval*" and "*jeitinho*" may dominate, regardless of the fact that these characteristics are, at best, regarded as of dubious quality. In the second model, the "carnaval country" model may be rejected in favor of the kind of "Paulista, hard-working, God-fearing" view of Brazilians that some members of the society prefer.

For my purposes, at this point, it was more useful to accept the second set of rankings ("*o país do carnaval*") as the accurate reflection of the model. In order to evaluate the extent to which people use both the dimension of the definition of Brazilianess, and the value attached to those characteristics, in grouping the characteristics, two PROFIT analyses were run, one using definition as the criterion and one using value as the criterion. The ranking of the items as truly defining Brazilian national character were moderately associated with inter-term distances from the pile sorts (multiple R = .60). The ranking of the items in terms of value were strongly associated with the inter-terms distances (multiple R = .95). These results indicate that individuals, when sorting the terms, are taking both sets of criteria into account, but that the value attached to the term is the more important of the two.

Phase 5 – Constructing an Interview to Measure Cultural Consensus in these Domains

At this point in the analysis it is probably useful to re-group, re-evaluate what has been learned, and re-think what the direction of the research is. The following points summarize what has been learned about each domain thus far:

- With respect to social support, respondents free-listed items that can be used to create a matrix of common problems in relation to potential sources of support. The responses to the free list task seemed so straightforward that no additional exploration was necessary.

- The domain of lifestyle was broken into two conceptually distinct domains: material possessions and leisure activities. With respect to material possessions, there was evidence of a primary dimension ordering the terms that defines the necessity of the item for having a good life, with a good life defined in terms of domestic comfort. With respect to leisure activities, there was also clear evidence that these activities are ordered in terms of their relative contribution to having a good life. But there is some disagreement within the sample regarding just how the activities are defined in that contribution to a good life. For one group of respondents, the activities can be divided into those that contribute to personal development, both in an intellectual and physical sense, and those that contribute to social life. For another group of respondents, the importance or salience of personal development takes priority, the apparent reasoning being that one needs to develop personally before one can create a satisfactory social life. It is worth noting here that there is a significant difference between these two groups in level of education (x^2 = 9.0, df=2, p = .01). The respondents who separate the dimensions of social life and personal development tend to have higher educational levels than those who see personal development as the priority.

- The domain of family life was thoroughly dominated by the idea of positive and negative characteristics of families. Of course, the way in which these terms were originally elicited contributed to this salience of values. We asked people to distinguish between families that they admired, versus those they did not. Keep in mind, however, that respondents were not required to use value terms in that task. It is not difficult to imagine that respondents could have used other criteria (e.g. families that are economically successful versus those that are not, or families that are more conventional in their activities versus those that are less conventional) as the basis for their admiration. But overwhelmingly respondents chose characteristics that are highly valued or esteemed versus those that are not highly valued or esteemed. And there was overwhelming consensus on these values, to the extent that we could overcome the polarization in terms to examine consensus. Also, the positive terms were differentiated by reference to the emotional climate of the family versus family structure, and negative terms were differentiated by reference to interpersonal behaviors within the family versus criminal and addictive behaviors.

- The domain of national characteristics was the most contested cultural domain we studied. There was substantial agreement on the degree to which the characteristics of Brazilians

were valued, or not. There was, however, considerable disagreement on whether or not these characteristics truly represented Brazilians or not. One subgroup differentiated questions of value from questions of definition, while another subgroup equated value and definition. Unlike the contested nature of leisure activities, among the small group of background variables that we have on these respondents, there were none that distinguished between these disagreeing groups.

At this point it is important to re-evaluate the aims of this work. There are two basic aims that are linked. The first is to develop an additional interview that will help to examine more carefully the cultural consensus within these domains. The second is to use that information to develop a survey interview schedule that can be used to measure individual beliefs, values and behaviors in these domains. Ultimately, cultural consonance in each domain will be calculated for individuals, and that cultural consonance will be used as a predictor of health status.

The concept of cultural consonance does not require that there be a single, uncontested cultural model for a particular domain, although that certainly makes the calculation of cultural consonance simpler. If there is a domain in which models are contested, cultural consonance with different models can always be calculated. But the data for testing for cultural consensus must be up to the task; that is, there must be a sample of sufficient size that will enable us to detect cultural consensus where it exists, and that will enable us to examine intracultural diversity if that appears to exist. Also, while it is probably not essential that questions be asked in precisely the same way in the cultural consensus interview and in the survey instrument, doing so will make the link of cultural model and individual behavior operationalized by cultural consonance more straightforward. Therefore, at this stage, an interview has to be developed that will facilitate these two requirements of the overall research.

The instrument developed is reproduced in Appendix 1. The following brief points about sections of the interview are important:

- For assessing consensus on social support, a matrix of problems-by-supporters was formed, and respondents were asked to rank order the potential supporters in relation to the problem. Index cards with each potential supporter were used as aids in the ranking task, since seven possible categories of support were used. Also, because the potential problems tended to be quite grave, I added one additional problem—"needing to get a ride"—in order to balance the serious problems with one more mundane.

- To assess consensus on lifestyle, respondents were presented with the list of material possessions and leisure activities. They were then asked to rate each item on a 4-point scale according to the importance of having—or doing—the item in order to have a good life. While the material possessions and the leisure activities were linked, they were presented as separate lists so that cultural consensus analyses could be carried out with the sets of items combined and separately.

- With respect to family life, I decided to shorten the list of terms used. The main reasons for this were that there was a relatively large number of terms, and the extreme polarity (already noted) between those terms regarded as positive descriptors of family characteristics and those terms regarded as negative descriptors. Because the aim of this part of the research was to determine the terms important for describing families, and arrive at a relative importance of different kinds of family descriptors, in order to then write individual-level value or belief statements for inclusion in the survey schedule, I decided that about half the terms we had would be sufficient for the development of the size scale I needed for the survey. Also, the extreme polarity of the terms made it difficult to sort out the distribution of the terms in the middle; that is, in the preliminary consensus analyses, it appeared that consensus was driven primarily by respondents' agreement at the extremes. I wanted to be able to

determine if there was consensus using terms that were less extreme. Therefore, in the larger consensus interview, thirteen (13) terms were selected to represent the domain of family life. All of the most negative descriptors (e.g. addiction, violence) were deleted. Then, the remaining terms selected were those that were at the center of the clusters of terms shown in Fig. 4. Respondents were then asked to rank order those 13 terms from the most important to the least important in having a family. Index cards with each term were presented to the respondents for this task.

- Finally, for national characteristics, respondents were presented with a series of statements of the following kind: "Brazilians are…hard workers." Then they were asked if they agreed or disagreed with that statement. A 4-point Likert-response scale was used, and 18 statements were included. Some of the items that, ultimately, would be less useful for developing individual-level belief items were dropped [e.g. *futebol* (soccer)].

One of the most important considerations in this phase of the study was selecting the respondents. I have always been convinced by Handwerker's arguments (Handwerker, Hatcherson and Herbert 1997; Handwerker and Wozniak, 1997) regarding sampling and consensus analysis. According to Handwerker, random sampling is unnecessary for doing consensus analysis, because the very nature of the theory and methods assumes that the knowledge that individuals have is not independent of other individuals. It is assumed that knowledge is shared (hence lack of independence of cases), and then that assumption is tested. Therefore, the usual issues of representativeness recede in importance. This is not to say, however, that issues of sampling can be ignored. My perspective has always been that we need to sample the full range of potential cultural knowledge; the problem, of course, is that we don't necessarily know how to go about doing that. What are the relevant parameters of potential intracultural diversity along which we must sample?

The fallback position here is to seek diversity along the usual sociodemographic dimensions that are (nearly) universally regarded as important in the social sciences: age, sex, and socioeconomic status. I hasten to add that these are conventionally regarded as important dimensions of variation in any population, but that is purely by convention. Nevertheless, throughout this research I regarded it as essential that we obtain a reasonable range of variation in these characteristics, so that potential intracultural variability could be detected. And, in Brazil, socioeconomic status is particularly important. Because of this, the research team made a concerted effort to stratify the convenience samples selected for interviewing along the dimensions of age, sex and socioeconomic status, using education as a proxy for SES.

			Education		Total
		primary	second.	university	
Free list	N	17	12	14	43
	%	39.5%	27.9%	32.6%	100.0%
Interview Set — Pile sorts	N	3	6	7	16
	%	18.8%	37.5%	43.8%	100.0%
Ranking/sorts	N	9	16	9	34
	%	26.5%	47.1%	26.5%	100.0%
Ranking	N	4	10	8	22
	%	18.2%	45.5%	36.4%	100.0%
Total	N	33	44	38	115
	%	28.7%	38.3%	33.0%	100.0%

Table 1: Distribution of interview sets by education level of respondents

This meant interviewing roughly equal number of persons with a primary school education only, a secondary school education and a university education. Table 1 presents the distribution of education for the first four rounds of interviewing.

For all sets of interviews, the distribution of the interviews by educational level achieves a rough parity of one-third of the interviews within each education group; however, there does appear to be a general "creep" of interviews into the group with a secondary education. When we discussed this within the research team, the consensus was that it was often more difficult to schedule interviews with persons with a primary education, not because of any difficulty in comprehension by the respondents (my fear), but rather logistics. Much of the interviewing took place during working hours, hours in which workers with unskilled and semi-skilled occupations had less discretion over the use of their time. Based on this reflection on the research process, we decided on a firm rule for sampling for this next round of interviewing: equal numbers of people from each educational group; equal numbers of men and women; and, a wide age range. Based primarily on logistics (time, in this case), a target sample size of 60 was set.

In fact, interviews were completed with a sample of 66 persons. The median age of the sample is 35 (range 18-67); there are 22 respondents in each category of education; 34 women and 32 men; and, 33 persons currently married at the time of the interview.

Cultural consensus analysis (Romney, Weller and Batchelder 1986) does three things. First, it determines the level of sharing or consensus within a set of respondents. If that level of consensus reaches a critical level (as assessed by the ratio of the first-to-the-second eigenvalue in a matrix of correlations among the respondents), then it is reasonable to assume that all of the respondents are drawing on a single cultural model of that domain. Second, if there is a reasonable level of consensus, then the degree to which each respondent agrees with that consensus—termed "cultural competence" in the consensus model—can be calculated and the distribution of the sharing of knowledge can be examined. Third, using competence coefficients, a "culturally best estimate" of the responses to the questions can be calculated that gives higher weight to the most competent respondents. In the following discussion of what I will be calling "the consensus interview," I will address each of these issues in turn.

Overall Consensus in the Four Cultural Domains - Table 2 summarizes the results of consensus analyses for each of the cultural domains studied. Also, because in previous

Domain:	Eigenvalue ratio	Mean competence	S.D. competence	Competence range
--Social support	6.53	.67	.14	.25-.92
--Lifestyle	6.59	.71	.12	.43-.86
(Material goods)	(5.99)	(.76)	(.11)	(.44-.93)
(Leisure)	(4.64)	(.66)	(.21)	(.09-.89)
--Family life	7.42	.82	.09	.63-.93
--National char.	3.97	.57	.19	.22-.90 (1 negative)

Table 2: Summary of consensus analyses

analyses we had treated the two aspects of lifestyle separately, consensus was examined for lifestyle as a whole and for its constituent parts. Clearly, for each domain studied, the results of the consensus analysis are consistent with the assumption that there are shared cultural models for each domain. Also, sharing tends to be quite high, as indicated by the large ratios of the first to the second eigenvalue, and mean competence tends to be high.

The one exception to this generalization is the domain of national characteristics. The consensus in this domain easily achieves the standard cutoff point for the eigenvalue ratio (i.e. >3.0), but the mean competence is much lower than for other domains, and there is one respondent with a negative competence coefficient. These results are, however, very close to what Caulkins (2001) found in his study of Welsh national characteristics.

The Distribution of Shared Knowledge in the Four Domains - The second direction that can be taken in analyzing the data from the consensus interview is to examine intracultural diversity along sociodemographic dimensions. A number of people working with consensus analysis have recommended using the first two principal components of the similarity matrix of respondents to display intracultural diversity (Kempton, Boster and Hartley 1996; Romney, et al. 2000; Handwerker, in press). The first principal component captures consensus, while the second principal component captures disagreement with that consensus. By visually examining the distribution of cases relative to these principal components, and by using conventional tests of statistical significance, we can generate a picture of the range of variability in relation to conventional sociodemographic categories.

There is significant intracultural diversity in the cultural domains of lifestyle and family life, and there is some indication of variability in social support. The distribution of respondents in relation to the first two principal components of lifestyle ratings is shown in Fig. 6. Respondents with a primary school education are shown in red; respondents with a secondary school education are shown in green; and, respondents with a university education are shown in blue. Also, I have drawn correspondingly colored circles that can capture the range of variation among different respondents. Clearly, there is much higher variability among respondents with a higher education. Their mean competence (.63) is significantly lower than the mean competence of the other two groups (.77 for the lower educational group and .72 for the secondary school group; p<.01 overall and for post-hoc comparisons).

For family life, there is significant intracultural diversity by gender, as shown in Fig. 7. Women are depicted in red and men in green, and again circles representing the range of variability of the competence coefficients have been added. After adjusting for age, women have a mean competence (.91) significantly higher than men's (.85) in the domain of family life (p<.01).

There is some indication of intracultural diversity with respect to social support, although the results are not as strong as they are for lifestyle and family life. Respondents who are 35 years old or younger have higher cultural competence in the model of social support than do older respondents (.71 versus.63; p<.05); however, the correlation between age and cultural competence in this domain is not significant. Therefore, this finding must be viewed with some caution.

These analyses of intracultural diversity are interesting for a couple of reasons. First, cultural consensus analysis can be criticized for being too focused on consensus, and hence not taking into account well-enough the diversity within a society in shared knowledge. But this critique stems really from a mis-understanding of the model. Consensus analysis examines consensus, but in doing so it must take diversity into account because, obviously, consensus is a state relative to the degree of diversity in a society. Caulkins and Hyatt (2000), Kempton, et al. (1996) and Romney, et al. (2000) all describe in detail the way in which consensus analysis can be used to examine intracultural diversity.

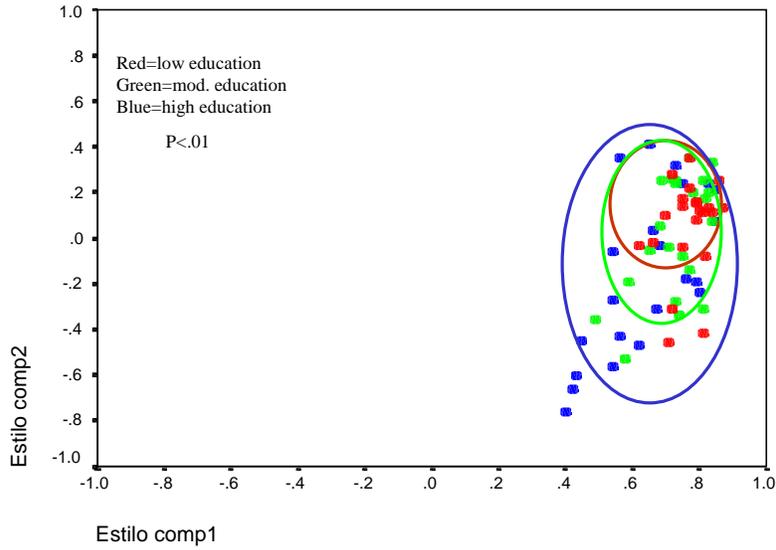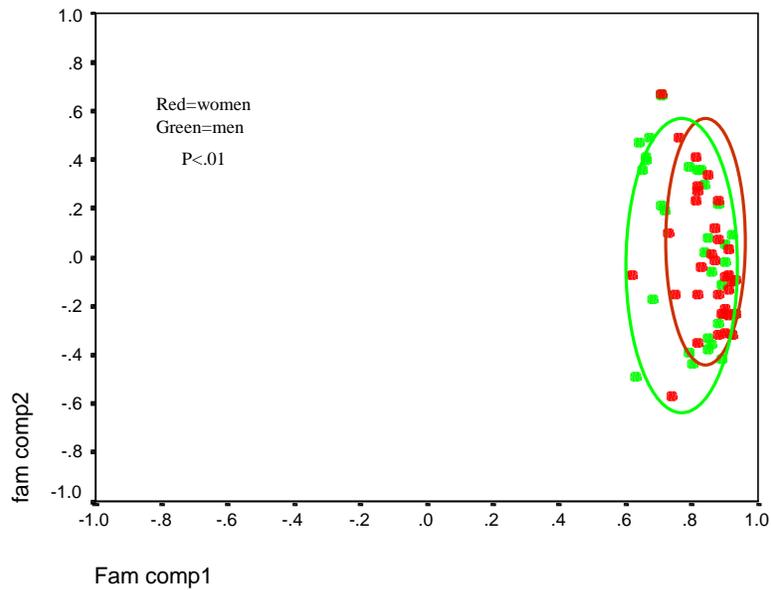Fig. 6: Differences in cultural competence by education: lifestyle

Fig. 7: Differences in mean competence by gender: family life

Second, these analyses of intracultural diversity are consistent with a general ethnographic understanding of Brazilian society. With respect to lifestyle, people with less education share a more definite idea of a desirable lifestyle. Probably this is because that lifestyle is problematic

for them to obtain. Not having the lifestyle makes the goals of lifestyle development more clear. The diversity among people with higher educations suggests that, having attained the lifestyle, it is easier to be somewhat critical, in the sense that the importance of particular items may not loom as large, since people most likely have those lifestyle items already.

With respect to family life, the higher cultural competence among women is consistent with the stronger emphasis on "kin work" for women in Brazil. Despite changes in Brazilian with respect to status and roles of women, as da Matta (1985) has pointed out, the house and the family remain the domain of women, while the street and the world outside the family are more the domain of men. Probably, women spend much more time talking about families—their own and others'—with each other than do men. This increased time spent in communication probably leads to a greater consistency between women in what are regarded as important and desirable family characteristics. This completely plausible distribution of knowledge is even more striking given the generally high competence of both men and women. In other words, cultural consensus analysis is a fairly precise tool for examining distributed cultural knowledge.

Consensus Responses – Social Support – As noted above, the thrid step in consensus analysis, and the step that will enable us ultimately to calculate cultural consonance, is to derive the "culturally best estimate" of the reponses to the quesitons. In consensus analysis, this is referred to as "the answer key," and is an aggregate of the respondents' answers, but giving higher weight to the more culturally competent respondents.

In the social support task, each respondent ranked seven possible sources of support in the order in which he or she thought they would typically be sought in the community. The following matrix summarizes theses results:

Problem:	Friends	Famíly	Health prof.	Church member	Colleague	Other specialist	Other
1. Unemployment	2.06 1	2.37 2	6.51 7	5.05 6	3.58 3	3.77 4	4.64 5
2. Need a ride	1.88 1	2.28 2	6.63 6	5.54 6	2.74 3	4.48 4	4.56 5
3. Problems at work	2.56 1	2.91 2	5.27 5	5.44 6	3.25 4	3.12 3	5.45 7
4. Psychological problem	2.93 2	2.48 1	4.57 4	5.20 5.5	5.20 5.5	3.57 3	6.31 7
5. Family problems	2.11 1	2.84 2	4.42 5	3.78 3	4.39 4	4.62 6	5.84 7
6. Illness	3.99 4	2.31 2	2.25 1	4.92 5	5.50 6	2.53 3	6.45 7
7. Relationship problems	2.07 1	2.54 2	4.44 5	4.63 6	4.37 4	3.98 3	5.97 7
8. Problems with children	3.04 2	1.69 1	3.37 3	4.46 5	5.05 6	3.81 4	6.21 7
9. Need money	2.20 2	1.49 1	6.46 7	5.39 6	3.63 4	3.59 3	5.28 5

In this matrix, the first number given is the weighted average of the rank of that source of support in response to that particular problem. The second number given is the integer rank (taking into account ties) of the source of support in response to that particular problem.

Clearly, friends and family are the most important sources of social support across all problems, regardless of type. Friends are actually favored over family in the sense that they are sought first in four of the nine problems, while family are sought first in three of the nine. Interestingly, the next most important source of support is "other specialist." This reflects respondents' use of, for example, "a banker" in response to needing money, or "a social worker" in response to relationship problems, or "a lawyer" in response to problems at work. As noted in the free list task, respondents are quick to move into the realm of institutional support, bypassing what are often thought of as the more intimate bonds of the church or the neighborhood ("neighbors" was the most frequent response for the generalized "other" category, despite the fact that it barely made it into the initial free list).

Consensus Responses – Lifestyle - The following are the consensus responses for the the lifestyle items. In this task, the respondents rated each item on a four-point scale according to the degree to which he or she thought that these were considered in the community as important "to live" (a phrase that sounds almost ironic in English but which makes perfect sense in Portuguese). For each item, the weighted average of the rating is given, along with the ranking of the weighted averages.

	ITEM	CONSENSUS RATING	RANK OF RATING
1	House	3.92	1.500
2	Stove	3.92	1.500
3	Study	3.86	3.000
4	Money for school	3.84	4.000
5	Refrigerator	3.81	5.000
6	Rest	3.79	6.000
7	Converse with friends	3.70	7.000
8	Telephone	3.69	8.000
9	Read	3.62	9.000
10	Play sports	3.61	10.000
11	Home furnishings	3.44	11.000
12	Go to church	3.32	13.000
13	Enough money for "extras"	3.36	12.000
14	Car	3.16	14.000
15	Television	2.98	15.500
16	Computer	2.98	15.500
17	Washing machine	2.90	17.000
18	Web access	2.75	18.000
19	Watch TV	2.66	20.500
20	Go to parties	2.66	20.500
21	Surf the web	2.69	19.000
22	Listen to music	2.63	22.000
23	Go to the theater	2.62	23.000
24	Sound system	2.44	25.000
25	Go to clubs	2.45	24.000
26	Cell phone	2.41	26.500
27	Go the the movies	2.41	26.500
28	Eat out	2.12	28.000
29	Go to the mall	2.11	29.000
30	Go to bars	1.97	30.000
31	VCR	1.94	31.000
32	Microwave oven	1.51	32.000

As noted earlier, there is consensus for the domain of lifestyle as a whole, as well as each component (i.e. material goods and leisure activities) of the domain. Each item was rated independently of each other item in two sets, but there is not a clear pattern of privileging either

subset of items in terms of importance. There is a clear mixture of the two sets of items. As noted in our earlier research (Dressler, Santos and Balieiro 1996), the material goods rated as most important do not include the more conspicuous of consumer items, but rather focus on what is necessary for a modicum of domestic comfort. And leisure activities are clearly mixed in with this material comfort, especially activities that can lead to self-improvement and to intimate activities with friends. The leisure activities that receive the lowest rating are, in a sense, the most conspicuous (going to bars and restaurants, or to the shopping mall).

It should be kept in mind that this is a model that is most highly shared among the least well-educated in the sample. It is, most likely, a model of the aspirations of the economically weak.

Consensus Responses – Family Life – In the consensus interview, I reduced drastically the number of items that describe the domain of family life in order to deal with the polarity problem discussed above. Respondents ranked thirteen items in terms of their important in "having a family" (again, a phrase the works better in Portuguese than in English). The following are the consensus ranks:

```
ITEM                        CONSENSUS RANK
1.  Love                         2.30
2.  Dialogue                     4.13
3.  Good relationship            4.87
4.  Comprehension                4.73
5.  Happiness                    5.26
6.  Workers                      5.55
7.  Organized                    5.98
8.  Help one another             6.23
9.  Confronts problems           6.59
10. Critical                     9.75
11. Fights                      11.58
12. Egoism                      12.04
13. Disrespect                  12.12
```

The consensus ranking of family characteristics gives highest weight to emotional dimensions of family life: love, understanding and the quality of relationships that go along with those emotional features. Items 6-9 have more to do with the structure and organization of the family. Finally, the negative features of fighting, egoism and disrespect come in last. It is worth noting that there is a kind of alternative model implicit in the data. In Fig. 7, there are a number of respondents who have high competence on the first factor (consensus), but who also have high positive loadings on the second factor. When examined closely, these respondents appear to reverse the ranks of items 1-5 and items 6-9. In other words, they tend to see the structure and organization of the family as more important than the emotional climate, and the low rankings given to items 11-13 maintain their high cultural competence overall. This is another example of how cultural consensus analysis can be used to detect intracultural diversity.

Consensus Responses – National Characteristics – As noted above, this is the most contested of all the cultural domains examined, as evidenced by the (relatively) low ratio of eigenvalues, the low mean competence, the high variability in competence coefficients, and the presence of one respondent with negative competence. In the consensus interview, respondents were read a statement that "Brazilians are _____," and then asked to agree or disagree with that statement on a four-point scale. The following list gives the weighted average rating of each item, along with the rank of that item.

	TERM	RATING	RANK
1	Love fun	3.75	1.000
2	Corrupt	3.71	2.000
3	Adore carnaval	3.58	3.500
4	Adore samba	3.58	3.500
5	Leave everyting to the last minute	3.57	5.000
6	Hard workers	3.52	6.000
7	Happy	3.51	7.500
8	Receive others	3.51	7.500
9	Dão um jeito	3.49	9.000
10	Faith	3.44	10.000
11	Stugglers	3.37	11.000
12	Supportive	3.26	12.000
13	Bad government	3.11	13.000
14	Take advantage	3.08	14.000
15	Ignore poor	2.97	15.000
16	Humble	2.86	16.000
17	Honest	2.69	17.000
18	Something for nothing	2.33	18.000
19	Lazy	1.80	19.000

The ratings and associated rankings of these characteristics reveal a very mixed portrait of Brazilians in terms of these national characteristics. On the one hand, they are fun loving and the country of carnaval and samba. On the other hand, they are corrupt and disorganized. They are hard-workers who treat others well, while they are always trying to get around the rules of society by employing the *jeitinho*. They are not thought of as being either honest or humble, but nor are they particularly lazy or constantly trying to get something for nothing. They are, nevertheless, seen as always being ready to take advantage.

Again, this is a contested domain. While there is no detectable systematic variation in the shared knowledge in this domain, there is considerable disagreement among individuals in just what constitutes a Brazilian.

Additional Analyses of Consensus Responses – The fact that we have here different kinds of data that can be used to examine cultural consensus means that we can compare the consensus obtained using different interview methods. For example, these data can be used to examine the consistency in the aggregate responses (or cultural answer keys) in this round of interviewing and previous rounds. This is a somewhat esoteric, although important, issue regarding the kinds of data that can be used in consensus analysis. The original derivation of the consensus model required input of dichotomous (or "yes-no") data (Romney, Weller and Batchelder 1986). Subsequent methodological work showed that rank-order data could also be used (Weller 1987). Some of us, however, have made use of rating or Likert-response format scales, due to the ease of use of these scales in the field, despite the objections by some regarding the degree to which responses of different individuals can truly be compared (Weller and Romney 1988). This is not an insignificant issue in this study, given the ultimate aim. The results obtained here will be used to construct a survey interview schedule that uses standard Likert-response format scales. To calculate cultural consonance, it is probably better (although not absolutely necessary) to have consensus data in a form very close to the form in which the individual-level data will be collected. Therefore, the degree to which consensus results might be altered by the form in which questions are asked is important.

The two domains in which this can be examined are national characteristics and lifestyle [the other domains cannot be examined, either because there was no earlier consensus analysis (in

the case of social support), or because the terms ranked in the consensus interview are a subset of terms from the previous ranking (as in the case of family characteristics)]. For national characteristics, the answer keys from the ranking tasks can be correlated with the answer key from the consensus interview. Remember, however, that there were two contesting groups when it came to the question of whether or not these characteristics truly define "Brazilianess:" one group, the cultural critics, ranked the terms differently from their evaluation of the terms in that task; the other group, the cultural cheerleaders, ranked the terms in essentially the same way as the evaluative ratings. The answer keys from the consensus interview and the value rankings were uncorrelated (r = .05). The correlation of the consensus interview key and the cultural critics' rankings of the terms was large, however (r = .80). Therefore, it appears that the consensus view of the items in the most recent interview is that, like it or not, these characteristics really do describe Brazilians (keeping in mind, however, that there is still substantial disagreement among the respondents). And, more importantly, the two ways of asking the same question arrive at the same results.

For style of life, in order to be comparable with the rankings from the earlier interview, I will use separate answer keys from the consensus interview for material possessions and for leisure activities. For material goods, the two sets of answer keys are highly correlated (r = .94). For leisure activities, recall that there was one subgroup of respondents who looked at the activities almost exclusively in terms their importance as means of personal development. The answer key for the ranking of the items in terms of personal development is highly correlated with the overall importance as rated in the consensus interview (r = .89). The overall importance of the items is uncorrelated with the contribution of the activities to social life (r = .04).

In the consensus interview, the lifestyle items can be treated as a single list of material possessions and of leisure activities. To try to get a comparable measure from the earlier ranking interviews, I used each item's rank (in the case of material goods) or an average rank combining the personal development rankings and the social life rankings (in the case of leisure activities). I then combined these lists, and re-ranked the ranks. This ordered all 32 items in a single rank-order that could be compared to the consensus interview ratings. The association of the two ranks is quite high (r = .88). This lends support to our view that material possessions and leisure activities combine to define a lifestyle that is viewed as the way in which one should live.

Phase 6 – The Domain of Food

As I noted at the outset, I'm trying to maintain a flavor for the temporal aspect of this research, not least because doing this kind of work involves iterations between data-collection and data-analysis (although in fact some of the more detailed analyses of intracultural diversity were conducted after the field season ended). The work described above (except for the analyses of intracultural diversity in the consensus interview) was completed in roughly two months. This left one month to employ these data in the development of a survey interview schedule for the collection of the data that would be used to calculate cultural consonance in these various domains.

At this point, the idea developed in the research team to collect some additional data regarding food. The primary impetus for this came from obtaining a pre-publication version of a paper written by Oths, Carolo and Santos (in press). Oths, et al. had carried out a pilot study on the social meaning of food in Ribeirão Preto, but focused on one specific dimension of meaning: prestige value. The hypothesis driving this study was that the motivation to consume particular foods stemmed from the way in which that consumption activity could communicate the prestige of the consumer. These investigators used free listing augmented by observation studies in markets, bars and restaurants, as well as content analyses of television commercials, to

generate a list of food items, some of which could be considered to be the basic foods that anyone could consume, and some of which could be considered elite foods. They then had a sample of 19 women rank the foods in terms of prestige. When consensus analysis was used to analyze the results, there was no consensus overall on the prestige of different foods. When the sample was broken down by social class, there appeared to be slightly different shared models within each group.

We decided to build on this work. Again, the Oths, et al. research was focused on examining prestige value. In our group, we decided to look at the meaning of food in from a somewhat more general angle first, and then to move on to more specific dimensions of meaning. We started with the list of foods from the Oths study (see the original paper for a detailed description of the derivation of the original list), and then augmented that list with some foods that had either become somewhat more widely available in the time period separating the two studies, or that were thought to balance out the list somewhat. The following terms were used:

1. pizza - pizza
2. churrasco - barbeque
3. peixe fresco – fresh fish
4. chips - chips
5. feijoada – bean stew
6. queijo fresco – fresh cheese
7. brocoli - broccoli
8. presumto - ham
9. coke - coke
10. chopp – draught beer
11. chocolate - chocolate
12. molho branco – white sauce
13. mamão papaya - papaya
14. palmito – heart of palm
15. margarina - margarine
16. suco – fruit juice
17. uva - grapes
18. iogurte - yoghurt
19. camarão - shrimp
20. laranja - oranges
21. pão frances – French bread
22. comidas congeladas – frozen foods
23. pão integral – whole-wheat bread
24. sanduiche mcdonalds – fast-food sandwiche
25. salada de maionese – potato salad
26. frango asado – roast chicken
27. macarronade - lasagne
28. adoçante – diet sweetener
29. molho de tomate em lata – canned tomato sauce
30. ervilhas em lata – canned green beans
31. doces de aniversário – party sweets

This list was then used in unconstrained pile sorts with a sample of 15 respondents, again chosen in order to provide a balance of men and women, younger and older persons, and persons with varying educations. A multidimensional scaling of the aggregate proximity matrix derived from the pile sort data is shown in Fig. 8.

As always, the respondents were interviewed carefully regarding their choices to lump foods together, or not. A fairly large number of criteria emerged from these interviews, and five of these appeared to be used by most of the respondents: health, prestige, "everydayness," practicality and desire. Health is just that, e.g. "these are things people eat to be healthy." There was a clear recognition of "foods that rich people eat," and interestingly, many of the foods that are eaten at breakfast (ham, cheese, papaya, whole grain bread) were referred to in this way. This turned out to be a result of the way in which wealthy people in Brazilian *telenovelas* are depicted eating breakfast, with great spreads of these kinds of foods. Also, going to a hotel is associated with these kinds of breakfasts, because a buffet-style breakfast is typically included in the price of a room, and going to a hotel is regarded as a luxurious thing to do. "Everydayness" is also very straightforward: "these are the foods that we eat every day," was a typical explanation for a pile. Practicality means that the foods are quickly and easily prepared. And desire refers to a person's love of that particular set of foods.

Overall Consensus on Each Dimension of Food - Even though it turned out to be a rather lengthy interview process, we decided to have the same 15 respondents rank order the set of foods on these five dimensions. This would enable us to test the relative importance of each using PROFIT analysis, and it would enable us to test the cultural consensus on these dimensions. Table 3 shows all these results. Clearly, there was substantial agreement among the respondents on the ranking of the foods along these five dimensions. The one exception to that is the dimension of desire. This had the lowest overall eigenvalue ratio, the widest range of competence coefficients, and there was one respondent with negative competence. The
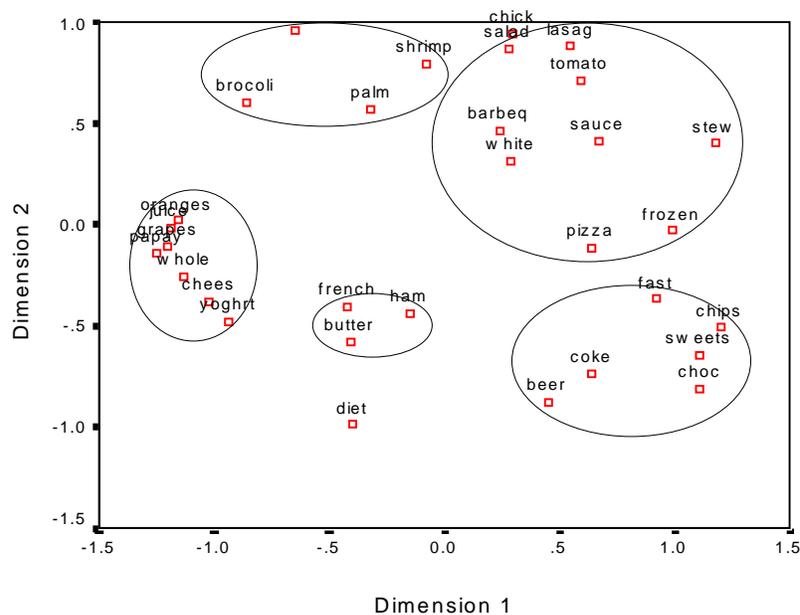

Fig. 8: Multidimensional scaling of pile sort data: food

multiple correlation coefficients from the PROFIT analysis indicate that when they were sorting the foods, the respondents clearly were thinking most about the healthfulness of different foods,

and secondarily about the practicality of preparing or obtaining the foods. The remaining dimensions proved to be of relatively minor importance, although it must be kept in mind that

Dimension	Eigenvalue ratio	Mean competence	Standard deviation	Range	PROFIT multiple R
Health	16.86	.83	.10	.50-.94	.93
Prestige	8.25	.73	.10	.49-.84	.31
Everydayness	9.82	.75	.08	.57-.87	.49
Practicality	10.47	.79	.08	.63-.90	.75
Desire	4.81	.55	.31	.15-.81 (1 negative)	.43

Table 3: Results of consensus analyses of food rankings, plus PROFIT analysis

this is being evaluated in relation to a single sorting task; in other words, these other dimensions may prove to be quite important in terms of other kinds of decisions about food.

The Distribution of Shared Knowledge in the Five Dimensions of Food – The relatively small sample of informants seriously hampers our ability to examine the intracultural distribution of shared knowledge about food; neverless, we can at least explore this question. Again, we can use the typical social scientific demographic categories (age, sex, marital status and education) to look for patterns. With food, there are virtually no differences. The only patterns that were at all striking were the relationship between age and cultural competence in the dimensions of health and prestige. Using the entire distribution of ages, there was a negative correlation between cultural competence in the dimension of health and informant age ($r = -.49$, $p<.06$) and between cultural competence in the dimension of prestige and informant age ($r = -.53$, $p<.05$).

Because there are only 15 informants, I dichotomized the sample at the median age (of 35) and looked at mean differences in cultural competence. These results are shown in Fig. 9. The red bars show mean competence in the dimension of health for younger and older persons, and the black bars show mean competence in the dimension of prestige for younger and older persons. For each dimension, younger informants have significantly higher cultural competence ($p<.10$). Of course, it must be kept in mind that we are dealing with a small sample of informants here, so the results must be viewed with caution. It is interesting, however, that even in the dimension of health, where overall agreement was highest, a pattern of intracultural differences can be detected. Part of this difference stems from the much lower diversity (or standard deviation) within the younger samples of informants. It may be that these differences stem from the greater exposure of younger persons to health messages in the media and perhaps in the school system. Persons under 35 years of age may have grown up their entire lives being exposed to messages regarding the health of foods, and hence their understanding of food in this regard may be more strongly influenced by this feature. Persons over 35 may have had their understanding of health fixed by less formal means of cultural transmission.

It is interesting also that younger informants have higher mean competence and a lower variance in competence on the dimension of the prestige value of food. This again may be due to a life-long exposure to media constructions of food and prestige. I noted earlier that some
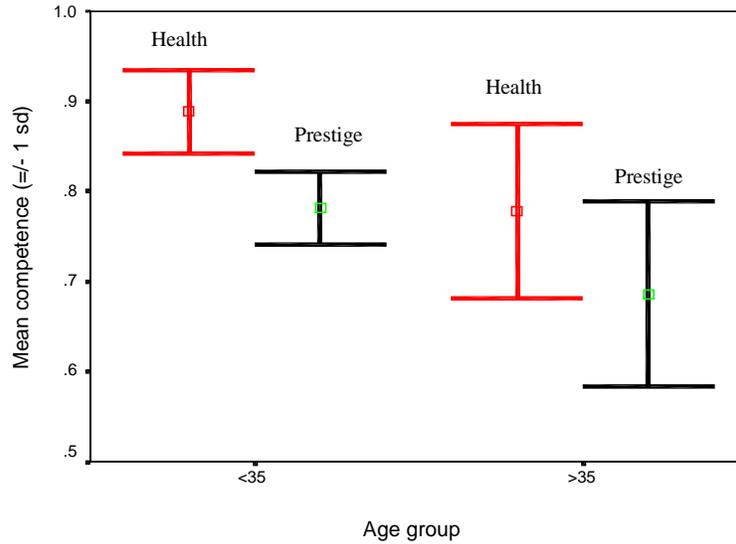
Fig. 9: Mean competence by age group in the dimensions of health and prestige

foods are regarded as prestigious because they are used as indicators of a wealthy and luxurious lifestyle in *telenovelas*. Oths et al. (in press) also note that the prestige value of food is reinforced in advertising. The greater agreement among younger informants may be a result of this kind of cultural socialization.

Consensus Responses – Dimensions of Food – The following is a listing of the aggregate ratings from consensus analysis. Again, these represent the "culturally best estimate" of how people rank the items in terms of the cultural model. The items have been listed in the order given by the ranking on the dimension of health, since that dimension had the highest cultural consensus, and, along with practicality, appears to be the most important dimension of meaning used in the unconstrained pile sort task.

	ITEM	Health	Practicality	Everydayness	Prestige	Desire
1	Oranges	3.11	13.09	5.48	25.41	16.15
2	Juice	3.94	18.49	8.50	12.99	12.02
3	Papaya	4.29	11.73	9.82	11.37	19.43
4	Grapes	5.58	11.80	19.25	10.06	21.54
5	Fish	5.95	25.51	17.86	8.80	17.92
6	Broccoli	6.10	21.35	14.26	13.38	23.22
7	Cheese	6.73	6.59	12.67	11.08	15.46
8	Yohgurt	7.98	6.38	11.07	11.40	14.24
9	Whole-grain bread	7.99	10.38	16.85	7.95	27.02
10	Roast chicken	12.58	22.52	16.95	19.77	8.96
11	Shrimp	13.23	28.40	29.19	1.34	17.52
12	Heart of palm	14.23	16.40	19.88	6.88	18.49
13	Bread	14.46	6.14	1.35	28.73	19.65
14	Pasta	16.19	19.28	14.26	24.54	10.66

15	White sauce	16.76	23.82	23.89	11.32	22.35
16	Diet food	17.62	6.52	12.30	17.15	28.07
17	Potato salad	17.83	25.49	17.67	18.40	15.80
18	Margarine	18.01	6.56	3.78	27.64	23.59
19	Ham	18.88	12.05	13.58	14.54	19.54
20	Chocolate	19.86	10.10	11.06	18.48	6.19
21	Frozen food	20.21	18.78	20.14	4.90	22.91
22	Green beans	21.68	13.05	13.06	20.95	25.47
23	Tomato sauce	21.73	13.90	10.03	24.96	22.06
24	Pizza	22.51	17.56	18.54	18.87	3.55
25	Barbeque	22.69	26.38	24.09	15.54	5.20
26	Sweets	23.70	26.28	27.34	18.34	11.86
27	Feijoada	24.76	30.67	27.42	15.17	10.41
28	Draft beer	26.03	15.23	25.71	15.06	7.11
29	Fast food	26.12	15.50	23.64	11.73	9.82
30	Coke	27.18	6.92	9.27	22.39	4.49
31	Chips	27.83	8.66	16.60	25.64	15.32

Given that we investigated five separate dimensions of meaning, it is also possible to examine the patterns of association among the different dimensions across the different foods. This will enable us to examine, for example, how the rankings of food in terms of health may (or may not) be systematically associated with other dimensions of food (e.g. practicality). These correlations are given in Table 4.

	Health	Practicality	Everydayness	Prestige	Desire
Health	-----				
Practicality	.075	-----			
Everydayness	.333*	.722***	-----		
Prestige	.357**	-.273	-.497***	-----	
Desire	-.370**	-.254	-.225	-.197	-----

*p<.10   *p<.05   ***p<.01

Table 4: Correlations among aggregate rankings of food

Foods that are ranked as healthy also tend to be ranked as prestigious and as foods used everyday (of course, the same foods are not ranked as prestigious and used everyday; rather, some foods that are used everyday are also healthy, and some foods that are prestigous are also ranked as healthy). But foods that are ranked as desirable are not ranked as healthy. The other major pattern concerns everyday foods. Overwhelmingly, they are both practical and low in prestige.

These results may help to explain why people tend to use the dimensions of health and practicality in the pile sort task. These various dimensions of food tend not to be independent of one another. Rather, ideas about health and ideas about practicality tend to incorporate ideas about everyday use, prestige and desire.

Phase 7: Constructing the Survey Interview Schedule

The final phase in this initial period of work was the development of the interview schedule to be used in the epidemiologic survey. To recapitulate the point of the research, the aim is to determine the degree to which individuals *in their own behaviors* approximate the shared cultural models in these domains of everyday life. This approximation is termed cultural consonance. It is hypothesized that the higher the degree of cultural consonance in each domain, the better the health status of the individual. Furthermore, it is hypothesized that cultural consonance will moderate the effects of individual-level psychological variables on health status.

In prior research, cultural consonance was measured in the domains of lifestyle and social support. Using previously developed inventories of lifestyle and items assessing social support, I first determined if there was consensus across different sociocultural contexts in the evaluation of those items. There was. I then assessed cultural consonance in each domain by comparing individual self-reports of lifestyle and access to social support with their respective consensus models.

For these two domains—lifestyle and social support—the measurement of cultural consonance turned out to be quite simple. The answer keys from cultural consensus analysis provided each item with a weight of its cultural importance. Cultural consonance could then be assessed very straightforwardly by determining which of the items that were deemed to be more important in the consensus analysis, whether it be ownership of material goods or reported behaviors as in social support, were indeed reported to be owned (or behaviors reported to be engaged in) by the individual respondent.

In the present study, the same strategy can be pursued with respect to lifestyle and social support, only with greater precision. The data-collection strategies used at the outset (free listing and pile sorts) enabled us to obtain culturally salient items for these domains. Later data collection (rankings and ratings) enabled us to determined the degree of sharing of evaluations of the items, and to derive a "culturally best estimate" of those evaluations. In the survey component of the research, we can collect self-reports of ownership of items and access to social supports from individual respondents, and cultural consonance can be measured in the same way as before.

The other domains selected present some special problems in this regard. For example, an individual can report without much difficulty if he or she owns a car, or if he or she visits a sports club with some regularity. Similarly, an individual can report with little hesitation the rank order in which he or she would seek out specific social supports were a problem of one kind or another to occur. But the domains of family life and national characteristics are different. We derived two kinds of evaluations of these domains. For family life, the cultural answer key from consensus analysis provides us with a ranking of the importance of these characteristics in having a family. For national characteristics, the cultural answer key provides an ordering of the importance of the characteristics as defining "Brazilianess."

What should we look for at the individual level that matches these consensus evaluations? Presumably one could ask about individual behaviors, but in the case of family life, that could translate into literally asking questions on the order of "How often a week do you beat your dog?" or "Do you really love your family?" It seems unlikely these would result in valid measures of behavior. Questions about behaviors that reflect national characteristics present similar, although not quite so graphic, difficulties.

Given these difficulties, we opted to develop, in the domains of family life and national characteristics, sets of items that measure individual attitudes or beliefs about features of the

domains. Instead of asking directly about family behaviors, we could ask about how the respondent perceives characteristics of his or her own family. Similarly, instead of asking about behaviors relative to national characteristics, we could ask about how the respondent values a characteristic in his or her own life. In essence, we will be determining how it is that the respondent locates him- or herself in a cultural space of values and beliefs.

In order to develop the individual-level items, as a team we took the items from the consensus analysis for that particular domain, which are really just words with a weight attached to them. At this point, the particular weighting of the items was unimportant (but it will become extremely important at the stage of measuring cultural consonance). We then wrote an attitude/belief item that used that item as the core concept. This process was facilitated in the domain of family life because there exist a number of scales of family attitudes in Portuguese on which we could model items.

The following are the items for family life in relation to the concepts from the consensus analysis. Due to the extreme polarity of the items for family life in the rankings, I had reduced the number of items to 13; therefore, in the item-writing stage, we generated a couple of items for each of the concepts.

<u>ITEM</u>	<u>CONCEPT</u>
1. Na minha família, nós nos sentimos próximos uns dos outros. (In my family, we feel close to one another.)	União (union)
2. Às vezes eu desejo que a minha família seja organizada. (At times I wish my family was more organized.)	Organizado (organized)
3. Às vezes, quando eu preciso, não tenho ajuda para resolver os problemas. (At times, when I need it, I don't have help to resolve my problems.)	Se ajudam (helpful)
4. As pessoas na minha família são trabalhadoras. (The people in my family are hard workers.)	Trabalhadores (workers)
5. Às vezes evitamos uns aos outros. (At times we avoid one another.)	Bom relacionamento (good relationship)
6. Às vezes, eu desejo que em minha família poderiamos sentir mais amor uns aos outros. (At times I wish that in my family we could feel more love for one another.)	Amor (love)
7. Nós somos tão bem ajustados como qualquer família poderia ser. (We are as well-adjusted as any family could be.)	Bom relacionamento (good relationship)
8. Quando eu faço alguma coisa, eu faço o que eu quero sem pensar na família. (When I do something, I do it without thinking about my family.)	Egoism (egoism)

9. Eu acho que a minha família faz críticas demais.　　　Fazem críticas (critical)
(I think that my family is too critical.)

10. Minha família enfrenta os problemas com firmeza.　　　Com firmeza (confront
(My family firmly confronts problems.)　　　　　　　　　　　problems)

11. Normalmente minha família é uma família alegre.　　　Alegre (happy)
(Normally mine is a happy family.)

12. Eu e minha família nos entendemos completamente.　　Compreensão
(In my family we understand each other completely.)　　　　(comprehension)

13. Nós nos ajudamos a lidar com os nossos problemas
        quando eles aparecem.　　　　　　　　　　　　　　Se ajudam (helpful)
(We help each other with our problems.)

14. Nós não temos tempo para ouvir uns aos outros.　　Compreensão
(We don't have time to listen to one another.)　　　　　　　(comprehension)

15. Às vezes parece que não temos respeito suficiente
        na minha família.　　　　　　　　　　　　　　　　Desrespeito (disrespect)
(At times if feels as though we don't have enough respect
in my family.)

16. Eu posso conversar de coisas importantes com
        a minha família.　　　　　　　　　　　　　　　　Diálogo (dialogue)
(I can talk about important things with my family.)

17. Nós nos sentimos amados na nossa família.　　　　Amor (love)
(We feel love for one another in my family.)

18. Às vezes eu desejo que minha família não brigue tanto.　Brigas (fights)
(At times I wish my family didn't fight so much.)

The response format for the items is a standard 4-point Likert-response, from "disagree totally" to "agree totally." We followed standard guidelines in writing the items, especially not including more than one question in a single item, keeping the language simple (a primary school comprehension level) and reversing the polarity on a number of them items. There was a lively discussion within the research group regarding one aspect of the simplicity of phrasing the items. For example, in item 18 regarding a family that fights, some of the research group would have preferred to have an item like "My family fights too much." It was believed that the qualifiers "at times" and " I wish" made the item indeterminate. As principal investigator, I overruled that objection in favor of what I regard as a less extreme item. I recognize that this makes the item somewhat less determinate. At the same time, the family is a cultural domain of considerable salience in Brazilian life. My perspective was that the qualifiers made it possible for respondents to endorse an item that would be otherwise too negative a statement for them to affirm, even if they actually have doubts about the quality of their family life. Those respondents who believe that their families do not fight are going to reject the statement regardless of how it is phrased. But, those respondents who have doubts about their families in this regard are, in essence, given the possibility to affirm that item, a possibility that I think would

be denied to them with a more blunt phrasing because the presentation of self created by endorsing the blunt item would be too opposed to the cultural ideal. For some items this was not a problem, but in several I insisted upon a qualified statement of the item.

We followed the same strategy in developing items for national characteristics. Again, we were interested in how an individual *in his or her own life* saw him- or herself projected into the cultural space of the model of Brazilianess. This could be done by asking about behaviors, but this too would necessitate asking questions virtually like "To what extent do you try to take advantage of other people?" Phrasing the items in terms of values or attitudes seemed a more prudent course. The following are the items chosen to measure values or attitudes consistent with the characteristics ascribed to Brazilian life, along with the concepts from the cultural model.

ITEM	CONCEPT
1. Eu tenho vergonha do governo do Brasil. (I am ashamed of the government of Brazil.)	Governo ruim (bad government)
2. Poucas vezes, eu deixo tudo para a última hora. (At times I leave everything to the last minute.)	Deixa tudo para à última hora (leave everything to the last minute)
3. É imposível viver a vida sem o jeitinho brasileiro. (It is impossible to live life without *jeitinho.*)	Dào um jeitinho
4. As vezes parece que eu não sou tão alegre quanto outras pessoas. (At times it seems that I'm not as happy as other persons.)	Alegre (happy)
5. Eu prefiro me divertir com os meus amigos mais do que fazer coisas sozinho. (I prefer to have fun with my friends more than doing things alone.)	Diversão (fun)
6. Na vida de hoje, é muito difícil receber apoio de outras pessoas. (In life today it is very difficult to receive the support of other persons.)	Solidaridade (solidarity)
7. Pare se viver hoje em dia, é necessário ser muito batalhador. (To life today it is necessary to struggle.)	Batalhador (stuggler)
8. É muito importante para mim que outras pessoas pensam que eu sou uma pessoa honesta. (It is very important to me that other persons think of me as an honest person.)	Honesto (honest)
9. Eu gosto de receber bem outras pessoas. (I enjoy receiving others well.)	Hospitaleiro (hospitable)
10. Todo tempo e dinheiro gasto para realizar o carnaval, vale a pena. (All the time and money spent on carnaval is worth it.)	Carnaval

11 Sempre que eu faço um negócio, me preocupo em levar vantagem. (I am always concerned with taking advantage in a deal.)

Levar vantagem (take advantage)

12. Eu não sou uma pessoa com muita fé.
(I am a person with much faith.)

Fé (faith)

13. Parece que é impossível para uma pessoa que
 é completamente honesta subir na vida. (It seems that
it is impossible for a person who is completely honest to
get ahead in life.)

Corrupção (corruption)

14. Muitas pessoas aqui são preguiçosas demais para subir
 na vida. (Many people are too lazy to get ahead in life.)

Preguiçosa (lazy)

15. Eu penso que para uma pessoa crescer na vida,
 precisa ser trabalhadora. (I think that for a person to get
ahead in life, he must be a worker.)

Trabalhador (worker)

16. Têm muitos pobres no Brasil porque muitas pessoas
 não querem trabalhar para mudar as suas vidas. (There are
many poor in Brazil because many people don't want to work
to change their lives.)

Os ricos não pensam dos pobres (the rich ignore the poor)

17. A melhor vida é uma vida em que você pode ganhar mais
 com o mínimo esforço. (The best life is one in which you profit
with the minimum effort.)

Folgado (leisured)

18. Quando eu alcanço um objetivo, é importante que todos
saibam. (When I reach an objective, it is important that
everybody knows.)

Humilde (hunble)

As in the case of attitudes about family life, these questions used a 4-point Likert-response format of "disagree completely" to "agree completely." The items employed here are somewhat more varied than the items used to assess family life, given the heterogeneity of the domain and the necessity of enabling the respondent to project his or her own personal values and beliefs into the space of cultural values and beliefs. So, for example, item 16, dealing with the issue of class prejudice in Brazilian life, we used a fairly straightforward statement of belief about the world. A person's response to this item would indicate that in their personal beliefs they agree or disagree with what is viewed as a prevailing sentiment in Brazilian life. Item 17 is another example of this. Other items, however, such as item 1 or item 9, require a direct self-evaluation by the respondent. In either case, the responses of individuals will enable us to see if their personal beliefs and attitudes have the same profile as the cultural consensus model of Brazilian national characteristics.

With the scale of personal attitudes regarding national characteristics, we took one additional step that was intended to enhance the cognitive orientation of the respondent. Prior to the items regarding personal attitudes, we are asking the respondent to rate the concepts describing Brazilianess in terms of how truly they do (or do not) define salient national characteristics. In other words, the survey respondents first respond to the same items that were used to test for cultural consensus regarding national characteristics. After that, they respond to the personal

attitude scale. This was done in order to try to insure that the respondent's own personal model of national characteristics was activated prior to his or her personal responses. This was done explicitly to try to situate respondents within that frame of reference.

These two scales represent the most dramatic departure from previous research in operationalizing cultural consonance. The departure involves both the cultural domains being studied and the way of asking about how those domains are realized in individual lives. As noted above, rather than asking about behaviors, and hence determining the extent to which individuals actually behave in the way defined by the cultural model, we are asking about values and attitudes, to determine how the individual is situated within the space of meanings defined by the cultural models.

The entire interview schedule is reproduced in Appendix II. In addition to the scales to be used to measure cultural consonance in several domains, we have included scales of: religiosity, locus of control, perceived stress, depressive symptomatology, and, of course, sociodemographic variables.

In addition to the scales developed above, we also developed new scales for the collection of data about behaviors in the domain of food. In the survey component of the research, we have four separate data-collection encounters with each respondent: the first is for the sociocultural interview, shown in Appendix II; the second and third encounters are to collect 24-hour dietary recalls to measure nutrient intake; and, the fourth is to collect data on body composition, blood pressure and a fasting blood sample.

We made the decision to collect additional data on food behaviors that would enable us to calculate cultural consonance in the domain of food, and to add these to the first dietary recall. The simplest way of collecting food behaviors in order to calculate cultural consonance with food is to obtain the frequency of consumption of the 31 foods used in the cultural consensus analysis. At the end of the first 24-hour recall, we ask the respondents to tell us how many times in the past two weeks they have consumed those items. These data can be used to calculate a measure of cultural consonance along each of the five dimensions of food and food use that were used in assessing cultural consensus. Oths and Dressler (2001) used this approach with the pilot study of the prestige value of food carried out by Oths, et al. (in press). More frequent consumption of foods that were regarded as more prestigious was associated with lower body mass index and lower percent body fat in the general population sample.

As with the sociocultural data, however, we decided to push the conceptual development of the cultural consonance model a little further. In the sociocultural data, we can calculate cultural consonance in terms of behavior, and we have new data collection procedures to calculate cultural consonance in terms of beliefs and values. In these approaches, we assume that the cultural model encapsulates the target behaviors or beliefs that the individual is trying to achieve.

In the food data, we did both. Using the list of 31 food items from the consensus analysis, we are asking each respondent to report the number of times that they have consumed each of the items in the two weeks prior to the interview. We can then calculate a measure of cultural consonance for each of the five dimensions of the domain of food for which we have cultural consensus results.

In addition, we developed a short scale of personal food values. The following items are presented to respondents, and they are asked to rate, on a 4-point Likert scale, the importance of each criterion in their decisions about eating.

1. Concern about the price of food
2. Eating healthy food
3. Eating something different (or out of the ordinary)
4. Eating something considered "chic"
5. Eating prepared foods
6. Eating something special (i.e. something you might get at a party)
7. Eating food that is already prepared
8. Eating food that you love
9. Eating food that you can prepared quickly
10. Eating food that gives you pleasure

Each item assesses, in a way designed to get at personal beliefs and attitudes about food, the same five dimensions that were included in the cultural consensus analysis. In this way, we can determine the degree to which individuals in their own behaviors (the food frequencies) correspond to the ranking of importance of those particular foods on each dimension (or cultural consonance in each dimension). At the same time, we can calculate the degree to which individual beliefs or attitudes about these criteria correspond to the cultural consensus (or cultural consonance in beliefs). We can then compare the strength of association between cultural consonance in food behaviors and cultural consonance in food beliefs in relation to a variety of outcome variables.

Discussion

The aim of this report has been to provide the reader with a concrete sense of how I have tried to integrate the methods and analytic techniques of cognitive anthropology with a biocultural epidemiology in order to improve and expand the measurement of cultural stresses that may be associated with individual psychobiological adaptation. To be sure, this research is theory driven. The conceptualization of the research design is dependent on the way in which the concept of culture is theorized and in the way that the relationship between aggregate cultural models and individual behavior is understood.

The research design is not particularly dependent on studying biocultural processes, however. For example, Chavez, et al. (2001) have recently used this same approach to examine participation in cervical cancer screening among Latina women in Southern California. They found that the more that a Latina expresses beliefs about cancer causation that are culturally consonant with an Anglo lay model (but not a biomedical model), the greater the likelihood that she will have had a recent Pap smear. This study is based on the same theoretical orientation as mine, but is focused on a very different outcome. In other words, as long as one is interested in the effects of variation in cultural consonance with widespread cultural models within a social group, then these methods can be profitably employed.

At this point, the research team is in the field collecting the survey or epidemiologic data. With respect to testing the principal hypotheses about the relationship between cultural consonance in various domains and individual adaptation, we must wait (probably another two years). There are, however, intermediate analyses that can be carried out as the data are collected. Primarily these intermediate analyses will consist of conventional psychometric analyses of the scales developed specifically for this project (the scale of family attitudes; values regarding national

characteristics; and food values). Even though these scales are not designed to be treated as conventional value or attitude scales, psychometric analyses of internal consistency and factor structure should be illuminating. These analyses will be the subject of future reports in this series.

References

Caulkins, D. Douglas (2001) Consensus, clines and edges in Celtic cultures. Cross-Cultural Research 35: 109-126.

Caulkins, D. Douglas and Susan B. Hyatt. (1999) Using culturl consensus analysis to measure cultural diversity in organizations and social movements. Field Methods 11: 5-26.

Cassel, John C., Ralph Patrick and C. David Jenkins. (1960) Epidemiological analysis of the health implications of culture change. Annals of the New York Academy of Science 84: 107-123.

Chavez, Leo R., Juliet M. McMullin, Shiraz I Mishra and F. Allan Hubbell. (2001) Beliefs matter: cultural beliefs and the use of cervical cancer-screening tests. American Anthropologist 103: 1114-1129.

DaMatta, Roberto. 1985. A Casa e a Rua: Espaço, Cidadania, Mulher e Morte no Brasil. Sao Paulo, Brasil: Eitora Brasiliense.

Dressler, William W. (1995) Modelling biocultural interactions in anthropological research: an example from research on stress and cardiovascular disease. Yearbook of Physical Anthropology 38: 27-56.

Dressler, William W. and James R. Bindon. (2000) The health consequences of cultural consonance: cultural dimensions of lifestyle, social support and arterial blood pressure in an African American community. American Anthropologist 102: 244-260.

Dressler, William W., Jose Ernesto Dos Santos, and Mauro Campos Balieiro. (1996) Studying diversity and sharing in culture: An example of lifestyle in Brazil. Journal of Anthropological Research 52: 331-353.

Dressler, William W. and José Ernesto dos Santos. (2000) Social and cultural dimensions of hypertension in Brazil: A review. Cadernos de Saúde Pública 16: 303-315.

McCubbin, HI, EA Thompson, AI Thompson and JE Fromer, Eds. (1998) Stress, Coping and Health in Families. Thousand Oaks, CA: Sage.

Handwerker, W. Penn, Julie Harris and Jeanne Hutcherson. (1997) Sampling guidelines for cultural data. Cultural Anthropology Methods 8: 7-9.

Handwerker, W. Penn and D. F. Wozniak. 1997. Sampling strategies for the collection of cultural data. Current Anthropology 38: 869-875.

Handwerker, W. Penn and Stephen P. Borgatti. (1998) Reasoning with numbers, pp. 549-592 in Handbook of Methods in Cultural Anthropology. H. Russell Bernard, Ed. Walnut Creek, CA: AltaMira Press.

Henry, James P. and John C. Cassel (1969) Psychosocial factors in essential hypertension. <u>American Journal of Epidemiology</u> 90: 171-200.

Hess, David J. and Roberto DaMatta. (1995) <u>The Brazilian Puzzle</u>. New York: Columbia University Press.

Kempton, Willett, James S. Boster and Jennifer A. Hartley. (1996) <u>Environmental Values in American Culture.</u> Cambridge, MA: MIT Press.

Kruskal, J.B. and M. Wish (1978) <u>Multidimensional Scaling</u>. Quantitative Applications in the Social Sciences Vol. 11. Beverly Hills, CA: Sage Publications.

Nuckolls, Charles W. (1998) <u>Culture: A Problem That Cannot Be Solved</u>. Madison, WI: University of Wisconsin Press.

Oths, Kathryn S., Adriana Carolo and José Ernesto Dos Santos. (n.d.) Social status and food preference in southeast Brazil. <u>Ecology of Food and Nutrition.</u> In press.

Oths, Kathryn S. and William W. Dressler (2001) Social processes and adult body size in Brazil. <u>Abstracts of the 100th Annual Meeting of the American Anthropological Association,</u> Washington, D.C., November 28-December 2.

Romney, A. Kimball, Susan C. Weller, and William H. Batchelder. 1986. Culture as consensus: A theory of culture and informant accuracy. <u>American Anthropologist</u> 88: 313-338.

Romney, A. Kimball, Carmella C. Moore, William H. Batchelder and Ti-Lien Hsia. (2000) Statistical methods for characterizing similarities and differences between semantic structures. <u>Proceedings of the National Academy of Sciences</u> 97: 518-523.

Weller, Susan C. and A. Kimball Romney. 1988. <u>Systematic Data Collection</u>. Vol. 10 Qualitative Research Methods Series. Newbury Park, CA: Sage.

Weller, Susan C. (1987) Shared knowledge, intracultural variation and knowledge aggregation. <u>American Behavioral Scientist</u> 31: 178-193.

APPENDIX I: Entrevista de Consenso Cultural

Iniciais: _____   Entrevistador: _____

Idade: _____   Data: _____

Estado civil: _____   Duração: _____

Escolaridade: _____   Sexo: masculino_____ feminino _____

Profissão: _____

1. Suporte social

Vou ler a você alguns problemas que a gente pode encontrar na vida. Aqui tem uma lista de tipos diferentes de pessoas que podem ajudar com estes problemas. Quero saber quem você pensa que seria a pessoa mais importante para ajudar com uma problema. Depois, quero saber quem você pensa que seria a segunda pessoa que poderia ajudar com este problema, e a terceira pessoa, etc. É muito importante lembrar que não estou perguntando apenas sobre a sua vida. Em vez disso, queremos entender o que você, em sua experiênica de vida, pensa sobre o que as pessoas em geral fazem.

Problema:	Amigos	Família	Um médico ou psicólogo	Uma pessoa religiosa	Um (a) colega	Um especialista na área	Uma outra pessoa (Quem?)
1. Problema de desemprego							
2. Precisa de uma carona							
3. Problemas no seu trabalho							
4. Depressão (ou problema similar)							
5. Problemas na família							
6. Problema de doença							
7. Problemas de relacionamentos							
8. Problemas com filhos							
9. Falta de dinheiro							

2. Estilo de vida

Agora quero perguntar sobre estilo de vida. Estilo de vida pode significar muitas coisas, mas aqui estamos usando a frase para referir a coisas materiais que pessoas gostam de ter para se viver e as atividades que pessoas gostam de fazer no tempo livre. Vou ler a você algumas coisas materiais e atividades, e quero saber se você pensa que estas coisas e atividades são importantes para se viver. Outra vez, é muito importante lembrar que eu não estou perguntando sobre as coisas que você tem ou não tem,mas estou perguntando sobre o que você pensa sobre a comunidade. Vou ler a você um item, e depois vou perguntar "Você pensa que aqui na comunidade este item é importante ou não para se viver?" [Nota: Depois de uma resposta, pergunte se este item é muito importante ou só importante, ou, se o item não é nada importante ou talvez um pouco importante.]

	Nada importante	Um pouco importante	Importante	Muito importante
a. máquina de lavar roupas	_____	_____	_____	_____
b. carro	_____	_____	_____	_____
c. microondas	_____	_____	_____	_____
d. acesso à internet	_____	_____	_____	_____
e. fogão	_____	_____	_____	_____
f. celular	_____	_____	_____	_____
g. móveis	_____	_____	_____	_____
h. uma casa própria	_____	_____	_____	_____
i. vídeo	_____	_____	_____	_____
j. computador	_____	_____	_____	_____
k. geladeira	_____	_____	_____	_____
l. telefone	_____	_____	_____	_____
m. TV	_____	_____	_____	_____
n. aparelho de som	_____	_____	_____	_____
o. dinheiro para gastos extras	_____	_____	_____	_____
p. dinheiro para escola	_____	_____	_____	_____

Agora quero perguntar sobre atividades de tempo livre. O quanto são importantes para se viver?

	Nada importante	Um pouco importante	Importante	Muito importante
a. ir ao clube	_____	_____	_____	_____
b. ouvir som	_____	_____	_____	_____
c. ir ao shopping	_____	_____	_____	_____
d. ir à igreja	_____	_____	_____	_____
e. ir a barzinhos	_____	_____	_____	_____
f. estudar	_____	_____	_____	_____
g. almoçar fora de casa	_____	_____	_____	_____
h. descansar	_____	_____	_____	_____
i. usar a internet	_____	_____	_____	_____
j. praticar esportes	_____	_____	_____	_____
k. ir a festas	_____	_____	_____	_____
l. assistir TV	_____	_____	_____	_____
m. ir ao cinema	_____	_____	_____	_____
n. conversar com amigos	_____	_____	_____	_____
o. ler	_____	_____	_____	_____
p. ir ao teatro	_____	_____	_____	_____

3. Características das famílias

Aqui temos cartões com características que podemos encontrar nas famílias. Por favor, coloque em ordem as características, começando com a característica mais importante para se ter na família, e acabando com a característica menos importante para se ter na família.

a. _____   f. _____   k. _____

b. _____   g. _____   l. _____

c. _____   h. _____   m. _____

d. _____   i. _____

e. _____   j. _____

4. Características brasileiras

Nessa última parte da entrevista, quero perguntar sobre características do povo brasileiro. Outra vez, temos falado com pessoas diferentes em Ribeirão sobre características brasileiras, e temos coletado algumas idéias sobre quais são as características dos brasileiros. Agora, estamos interessados no que você pensa sobre estas características. Então, vou ler a você uma característica, e por favor, me diga se você concorda, ou não, que esta é uma característica dos brasileiros. *[Depois que o sujeito responder, pergunte: "Você concorda totalmente ou só um pouco?" Ou, "Você descorda totalmente ou só um pouco?"]*

Os brasileiros:	Desconcorda totalmente	Desconcorda	Concorda	Concorda totalmente
a. são batalhadores	_____	_____	_____	_____
b. são humildes	_____	_____	_____	_____
c. são trabalhadores	_____	_____	_____	_____
d. têm fé	_____	_____	_____	_____
e. gostam de levar vantagem	_____	_____	_____	_____
f. adoram samba e carnaval	_____	_____	_____	_____
g. aceitam um governo ruim	_____	_____	_____	_____

	Descorda totalmente	Descorda	Concorda	Concorda totalmente
h. deixam tudo para a última hora	_____	_____	_____	_____
i. são hospitaleiros	_____	_____	_____	_____
j. os ricos não pensam nos pobres	_____	_____	_____	_____
k. são um povo alegre	_____	_____	_____	_____
l. são folgados	_____	_____	_____	_____
m. têm solidariedade	_____	_____	_____	_____
n. gostam de diversão	_____	_____	_____	_____
o. sempre querem dar um jeitinho	_____	_____	_____	_____
p. têm bastante corrupção	_____	_____	_____	_____
q. são honestos	_____	_____	_____	_____
r. são preguiçosos	_____	_____	_____	_____

5. Final

Muito obrigado pela ajuda com esta pesquisa. Você gostaria de fazer alguma pergunta sobre a entrevista? Se tem, eu posso tentar responder. Se não tem, obrigado outra vez.

A. Composição da casa

1. Sítio _____   2. Família _____   3. Pessoa_____

4. Sexo: masc. _____ fem. _____ 5. Estado civil_____

Pessoa (iniciais)	Idade	Parentesco	Ocupação	TA	A	E
		Chefe de casa				
		Dona de casa				

TA = trabalhando agora? (sim ou não)
A = número de meses em que trabalhou nos últimos 12 meses
E = Entrevistado? (sim ou não)

6.   De onde você é? _____

7. [Se não é de Ribeirão] : Há quanto tempo mora aqui? _____

8. Tem família aqui na cidade? _____ Quais:
    a. Pais _____
    b. Irmãos _____
    c. Irmãs _____
    d. Tios/tias _____
    e. Primos/primas _____
    f. Outras _____

9.   Até que ano você frequentou a escola? (Nota: Marque o grau no parênteses e faça um círculo no número que corresponde a última série frequentada.)

    a. (   ) Nunca frequentou

    b. (   ) Educação de jovens e adultos/mobral

    c. (   ) Ensino fundamental   1 2 3 4 5 6 7 8

    d. (   ) Ensino medio   1 2 3

    e. (   ) Ensino superior   1   2   3   4   5   6 [Completa? _____]

10. Até que ano seu esposo/sua esposa frequentou escola?

    a. (   ) Nunca frequentou

    b. (   ) Educação de jovens e adultos/mobral

    c. (   ) Ensino fundamental   1 2 3 4 5 6 7 8

    d. (   ) Ensino medio   1 2 3

    e. (   ) Ensino superior   1   2   3   4   5   6 [Completa? _____]

B. Religião

1. Qual é a sua religião? _____

Agora gostaria de perguntar algumas questões sobre pensamentos religiosos e atividades na igreja.

	Nunca	Raramente	Com alguma frequência	A maior parte do tempo
Com que frequência você:				
2. vai aos cultos religiosos?	0_____	1_____	2_____	3_____

	Nunca	Raramente	Com alguma frequência	A maior parte do tempo
3. sente que a sua fé o ajuda a subir na vida?	0_____	1_____	2_____	3_____
4. sente que a sua fé o ajuda a entender a sua vida?	0_____	1_____	2_____	3_____
5. participa de atividades na sua religião?	0_____	1_____	2_____	3_____
6. sente que a sua fé o ajuda no seu casamento (ou outros relacionamentos)?	0_____	1_____	2_____	3_____
7. tem o hábito de rezar?	0_____	1_____	2_____	3_____

C. Estilo de vida

Agora, eu gostaria de perguntar sobre aspetos do seu estilo de vida. Dos seguintes objetos, quais você possui?

1. máquina de lavar roupas_____

2. carro_____

3. microondas_____

4. acesso à internet_____

5. fogão_____

6. celular_____

7. sofá e poltronas_____

8. mesa e cadeiras_____

9. uma casa própria_____

10. video_____

11. computador_____

12. geladeira_____

13. telefone fixo_____

14. TV_____

15. aparelho de som_____

■■

16. Tem dinheiro suficiente para gastos extras?

Não_____   Sim, mas só um pouco_____   Sim, suficiente_____

17. Tem dinheiro suficiente para a escola dos seus filhos (ou para você mesmo)?

Não_____   Sim_____

Agora quero perguntar sobre atividades de tempo livre. Quantas vezes por mês você pode fazer estes atividades?

	Nunca	Uma a duas vezes/mês	Uma vez por semana	Mais do que uma vez/semana
1. ir ao clube	0_____	1_____	2_____	3_____
2. ouvir música	0_____	1_____	2_____	3_____
3. ir ao shopping	0_____	1_____	2_____	3_____
4. ir à igreja	0_____	1_____	2_____	3_____
5. ir a barzinhos	0_____	1_____	2_____	3_____
6. estudar para se desenvolver pessoalmente	0_____	1_____	2_____	3_____
7. almoçar fora de casa só pelo prazer	0_____	1_____	2_____	3_____
8. passar um tempo só descansando	0_____	1_____	2_____	3_____
9. usar a internet	0_____	1_____	2_____	3_____
10. praticar esportes	0_____	1_____	2_____	3_____
11. ir a festas	0_____	1_____	2_____	3_____
12. assistir TV	0_____	1_____	2_____	3_____
13. ir ao cinema	0_____	1_____	2_____	3_____
14. conversar com amigos só pelo prazer	0_____	1_____	2_____	3_____
15. ler só pelo prazer	0_____	1_____	2_____	3_____
16. ir ao teatro	0_____	1_____	2_____	3_____

D. Suporte social

Vou ler a você alguns problemas que a gente pode encontrar na vida. Aqui tem uma lista de tipos diferentes de pessoas que podem ajudar com estes problemas. Quero saber quem você pensa que seria a pessoa mais importante para ajudar com um problema. Depois, quero saber quem você pensa que seria a Segunda pessoa que poderia ajudar com este problema, e a terceira pessoa. [Depois da terceira]: Me diga agora se você procuraria ou não algumas dessas pessoas. [Ler as opções até agora não selecionadas pelo o sujeito.]

Problema:	Amigos	Família	Um médico ou psicólogo	Uma pessoa religiosa	Um (a) colega de trabalho	Um especialista na área	Uma outra pessoa
1. Problema de desemprego							
2. Precisa de uma carona							
3. Problemas no seu trabalho							
4. Depressão (ou problema similar)							
5. Problemas na família							
6. Problema de doença							
7. Problemas de relacionamentos							
8. Problemas com filhos							
9. Falta de dinheiro							

E. Locus de controle

Agora, gostaria de perguntar sobre as suas opiniões sobre doenças e outras coisas. Por favor, me diga se você concorda ou discorda das seguintes afirmações.

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
1. Pensando em doenças, o que tiver que acontecer, acontecerá.	0_____	1_____	2_____	3_____
2. Algumas vezes eu sinto que estou sendo "empurrado" na vida.	0_____	1_____	2_____	3_____
3. Nada posso fazer para mudar algumas coisas importantes na minha vida.	0_____	1_____	2_____	3_____

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
4. A maior parte das doenças melhora, não importa qual tratamento foi usado.	0_____	1_____	2_____	3_____
5. Quando as pessoas ficam doentes, geralmente é por azar.	0_____	1_____	2_____	3_____
6. Para alguns dos problemas que eu tenho, não têm soluções.	0_____	1_____	2_____	3_____
7. Quando as pessoas ficam doentes, devem pedir ajuda a Deus, ou não melhoram.	0_____	1_____	2_____	3_____
8. Se Deus quer enviar uma doença para você, não há nada que você possa fazer.	0_____	1_____	2_____	3_____
9. Não há nada que eu possa fazer sobre as coisas que me acontecem.	0_____	1_____	2_____	3_____
10. Quando alguém fica doente, nada se pode fazer por ele.	0_____	1_____	2_____	3_____
11. Se você fica doente, é porque você vive sob uma pressão muito grande.	0_____	1_____	2_____	3_____
12. Quando eu tenho um problema, faço coisas para não pensar nele.	0_____	1_____	2_____	3_____
13. Eu sempre me sinto desamparado ao lidar com meus problemas.	0_____	1_____	2_____	3_____
14. As pessoas que têm boa saúde são as pessoas de sorte.	0_____	1_____	2_____	3_____

F. Estresse percebido:

Agora eu tenho um novo grupo de questões sobre algumas coisas que pode acontecer na vida de uma pessoa. Por favor, fale-me sobre quantas vezes você sentiu isso durante o mês passado.

Durante o mês passado, com que frequência:

	Nunca	Uma vez por semana	Dua/três vez. por semana	Quase todo dia
1. Você se sentiu sem controle sobre importantes acontecimentos de sua vida?	0_____	1_____	2_____	3_____

	Nunca	Uma vez por semana	Dua/três vez. por semana	Quase todo dia
2. Você sentiu que estava realmente conseguindo importantes mudançasem sua vida?	0_____	1_____	2_____	3_____
3. Você sentiu com capacidade de controlar sua vida?	0_____	1_____	2_____	3_____
4. Você sentiu confiança em lidar com seus problemas?	0_____	1_____	2_____	3_____
5. Você sentiu que as coisas tomaram o rumo que você pretendia para elas?	0_____	1_____	2_____	3_____
6. Você foi capaz de resolver as coisas que te preocuparam ?	0_____	1_____	2_____	3_____
7. Você sentiu que havia muitos problemas, que você não podia resolver?	0_____	1_____	2_____	3_____
8. Você foi capaz de controlar o modo como você usou seu tempo?	0_____	1_____	2_____	3_____
9. Você se sentiu nervoso, com estafa (cansado, irritado)?	0_____	1_____	2_____	3_____
10. Você se sentiu zangado porque aconteceram coisas que você não pode controlar?	0_____	1_____	2_____	3_____

G. CES-D

Agora eu quero perguntar algumas questões muito similar às outras, mas agora eu vou perguntar mais sobre como você tem se sentido, e quero perguntar só sobre a última semana.

	Raramente (< de 1 dia)	Pouco tempo (1-2 dias)	Um tempo moderado (3-4 dias)	A maior parte do tempo (5-7 dias)
Durante a última semana:				
1. Senti-me incomodado com coisas que habitualmente não me incomodam.	0_____	1_____	2_____	3_____
2. Não tive vontade de comer, tive pouco apetite.	0_____	1_____	2_____	3_____

	Raramente (< de 1 dia)	Pouco tempo (1-2 dias)	Um tempo moderado (3-4 dias)	A maior parte do tempo (5-7 dias)
3. Senti não conseguir melhorar meu estado de ânimo mesmo com a ajuda de familiares e amigos.	0_____	1_____	2_____	3_____
4. Senti-me, comparando-me às outras pessoas, tendo tanto valor quanto a maioria delas.	0_____	1_____	2_____	3_____
5. Senti dificuldade em me concentrar no que estava fazendo.	0_____	1_____	2_____	3_____
6. Senti-me deprimido.	0_____	1_____	2_____	3_____
7. Senti que tive que fazer esforço para dar conta das minhas tarefas habituais.	0_____	1_____	2_____	3_____
8. Senti-me otimista com relação ao futuro.	0_____	1_____	2_____	3_____
9. Considerei que minha vida tinha sido um fracasso.	0_____	1_____	2_____	3_____
10. Senti-me amedrontado.	0_____	1_____	2_____	3_____
11. Meu sono não foi repousante.	0_____	1_____	2_____	3_____
12. Estive feliz.	0_____	1_____	2_____	3_____
13. Falei menos que habitual.	0_____	1_____	2_____	3_____
14. Senti-me sozinho.	0_____	1_____	2_____	3_____
15. As pessoas não foram amistosas comigo.	0_____	1_____	2_____	3_____
16. Aproveitei minha vida.	0_____	1_____	2_____	3_____
17. Tive crises de choro.	0_____	1_____	2_____	3_____
18. Senti-me triste.	0_____	1_____	2_____	3_____
19. Senti que as pessoas não gostavam de mim.	0_____	1_____	2_____	3_____
20. Não consegui levar adiante minhas coisas.	0_____	1_____	2_____	3_____

H. <u>A vida familiar</u>

Agora, gostaria de falar sobre as suas opinões sobre a sua família. Vou ler a você uma afirmação, e só quero saber se você concorda ou discorda com esta afirmação.

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
1. Na minha família, nós nos sentimos próximos uns dos outros.	0_____	1_____	2_____	3_____
2. Às vezes eu desejo que a minha família seja organizada.	0_____	1_____	2_____	3_____
3. Às vezes, quando eu preciso, não tenho ajuda para resolver os problemas.	0_____	1_____	2_____	3_____
4. As pessoas na minha família são trabalhadoras.	0_____	1_____	2_____	3_____
5. Às vezes evitamos uns aos outros.	0_____	1_____	2_____	3_____
6. Às vezes, eu desejo que em minha família poderiamos sentir mais amor uns aos outros.	0_____	1_____	2_____	3_____
7. Nós somos tão bem ajustados como qualquer família poderia ser.	0_____	1_____	2_____	3_____
8. Quando eu faço alguma coisa, eu faço o que eu quero sem pensar na família.	0_____	1_____	2_____	3_____
9. Eu acho que a minha família faz críticas demais.	0_____	1_____	2_____	3_____
10. Minha família enfrenta os problemas com firmeza.	0_____	1_____	2_____	3_____
11. Normalmente minha família é uma família alegre.	0_____	1_____	2_____	3_____
12. Eu e minha família nos entendemos completamente.	0_____	1_____	2_____	3_____
13. Nós nos ajudamos a lidar com os nossos problemas quando eles aparecem.	0_____	1_____	2_____	3_____
14. Nós não temos tempo para ouvir uns aos outros.	0_____	1_____	2_____	3_____

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
15. Às vezes parece que não temos respeito suficiente na minha família.	0_____	1_____	2_____	3_____
16. Eu posso conversar de coisas importantes com a minha família.	0_____	1_____	2_____	3_____
17. Nós nos sentimos amados na nossa família.	0_____	1_____	2_____	3_____
18. Às vezes eu desejo que minha família não brigue tanto.	0_____	1_____	2_____	3_____

I. Características nacionais

Estamos quase acabando com a entrevista. Aqui, eu quero perguntar sobre características que algumas pessoas pensam que podem descrever o povo brasileiro. Eu quero saber se você concorda ou discorda com estas afirmações.

Os brasileiros:	Discorda totalmente	Discorda	Concorda	Concorda totalmente
1. são batalhadores	0_____	1_____	2_____	3_____
2. são humildes	0_____	1_____	2_____	3_____
3. são trabalhadores	0_____	1_____	2_____	3_____
4. têm fé	0_____	1_____	2_____	3_____
5. gostam de levar vantagem	0_____	1_____	2_____	3_____
6. adoram samba e carnaval	0_____	1_____	2_____	3_____
7. aceitam um governo ruim	0_____	1_____	2_____	3_____
8. deixam tudo para a última hora	0_____	1_____	2_____	3_____
9. são hospitaleiros	0_____	1_____	2_____	3_____
10. os ricos não pensam nos pobres	0_____	1_____	2_____	3_____
11. são um povo alegre	0_____	1_____	2_____	3_____
12. são folgados	0_____	1_____	2_____	3_____
13. têm solidariedade	0_____	1_____	2_____	3_____

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
14. gostam de diversão	0_____	1_____	2_____	3_____
15. sempre querem dar um jeitinho	0_____	1_____	2_____	3_____
16. têm bastante corrupção	0_____	1_____	2_____	3_____
17. são honestos	0_____	1_____	2_____	3_____
18. são preguiçosos	0_____	1_____	2_____	3_____

J. Atitudes e opinões

E agora nós alcançamos o fim da entrevista. Eu só quero perguntar mais um jogo de questões. Tenho um jogo de afirmações aqui sobre aspectos diversos da vida, e quero saber se você concorda ou discorda com estas afirmações.

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
1. Eu tenho vergonha do governo do Brasil.	0_____	1_____	2_____	3_____
2. Poucas vezes, eu deixo tudo para a última hora.	0_____	1_____	2_____	3_____
3. É imposível viver a vida sem o jeitinho brasileiro.	0_____	1_____	2_____	3_____
4. As vezes parece que eu não sou tão alegre quanto outras pessoas.	0_____	1_____	2_____	3_____
5. Eu prefiro me divertir com os meus amigos mais do que fazer coisas sozinho.	0_____	1_____	2_____	3_____
6. Na vida de hoje, é muito difícil receber apoio de outras pessoas.	0_____	1_____	2_____	3_____
7. Pare se viver hoje em dia, é necessário ser muito batalhador.	0_____	1_____	2_____	3_____
8. É muito importante para mim que outras pessoas pensam que eu sou uma pessoa honesta.	0_____	1_____	2_____	3_____
9. Eu gosto de receber bem outras pessoas.	0_____	1_____	2_____	3_____

	Discorda totalmente	Discorda	Concorda	Concorda totalmente
10 Eu gosto muito de estudar só pelo prazer de aprender.	0_____	1_____	2_____	3_____
11. Todo tempo e dinheiro gasto para realizar o carnaval, vale a pena.	0_____	1_____	2_____	3_____
12 Sempre que eu faço um negócio, me preocupo em levar vantagem.	0_____	1_____	2_____	3_____
13. Eu não sou uma pessoa com muita fé.	0_____	1_____	2_____	3_____
14. É muito importante para mim ler os jornais e revistas nacionais para entender o que está acontencendo no mundo.	0_____	1_____	2_____	3_____
15. Parece que é impossível para uma pessoa que é completamente honesta subir na vida.	0_____	1_____	2_____	3_____
16. Muitas pessoas aqui são preguiçosas demais para subir na vida.	0_____	1_____	2_____	3_____
17. Eu penso que para uma pessoa crescer na vida, precisa ser trabalhadora.	0_____	1_____	2_____	3_____
18. Têm muitos pobres no Brasil porque muitas pessoas não querem trabalhar para mudar as suas vidas.	0_____	1_____	2_____	3_____
19. A melhor vida é uma vida em que você pode ganhar mais com o mínimo esforço.	0_____	1_____	2_____	3_____
20. Quando eu alcanço um objetivo, é importante que todos saibam.	0_____	1_____	2_____	3_____

[Se lembra continuar na próxima página.]

K. Renda familiar

1. Renda mensal aproximada do chefe de casa:

    0 a 1 salários mínimos (   )   5 a 6 salários mínimos (   )

    1 a 2 salários mínimos (   )   6 a 7 salários mínimos (   )

    2 a 3 salários mínimos (   )   7 a 8 salários mínimos (   )

    3 a 4 salários mínimos (   )   8 a 9 salários mínimos (   )

    4 a 5 salários mínimos (   )   mais de 10 salários mínimos (   )

2. Renda mensal aproximada da família:

    0 a 1 salários mínimos (   )   5 a 6 salários mínimos (   )

    1 a 2 salários mínimos (   )   6 a 7 salários mínimos (   )

    2 a 3 salários mínimos (   )   7 a 8 salários mínimos (   )

    3 a 4 salários mínimos (   )   8 a 9 salários mínimos (   )

    4 a 5 salários mínimos (   )   mais de 10 salários mínimos (   )

MUITO OBRIGADA! Nós agradacemos muito a sua participação. Posso responder a algumas questões que você tenha? Bom. Na próxima etapa do projeto virá uma nutricionista da equipe que entrará em contato para marcar uma entrevista sobre a sua alimentação. Umas das duas nutricionistas da equipe—Mislene ou Daniela—vai contatar em breve. Outra vez—muito obrigada.