CHAPTER 2. PREFIELD PREPARATION AND NON-LINGUISTIC CONSIDERATIONS FOR FIELDWORK

2.1. Prefield preparation

You are going to the 'field' to study aspects of some language. You probably have a general idea of what you plan to study. But it is always useful to bring your research questions into ever sharper focus as your journey into the unknown takes shape. So, before you apply for a research grant, before you buy your ticket, ask yourself this: Am I clear on what I want to study? Can I explain it to others without being too wordy or abstruse? Can I explain it convincingly to the mirror? 'What is the exact object of my investigation?'

Part of getting an answer to these questions is to consider whether the object is to study something directly observable or something only inferable. An example of the former would be the measurements of formant frequencies of consonants and vowels across all speakers in a single village. An example of the latter would be, e.g. constraint rankings proposed to account for the morphological structure of the verb of language 'x'. This type of object clarification will affect your preparation, including your budget, your need for skills (e.g. in sound analysis software or constraint ranking evaluation, etc.), etc.

Another issue to consider in this regard is whether you are ultimately more interested in the explanation of similarities between languages or in the documentation of their differences. (Contrary to some opinions, the former is not necessarily a better goal than the latter!) Are you interested in corpus-based studies or speaker intuitions? Are you interested more in qualitative studies or quantitative studies, or a combination thereof? Is your principal objective connected in any way to ethnography of communication? And so forth.

A less obvious, but perhaps equally important, way to clarify your research objectives, once you have decided on your main question, is to carefully consider the ancillary questions implied by your 'big' research question(s). For example, if you read Cowart (), you may decide that your big theoretical research objective could benefit from some statistical analysis. How much time should you therefore give to the study of statistics? Or to learning about questionnaire preparation?

It is common for PhD students (in particular) to specialize, to deliberately focus on a narrower range of questions, to the exclusion of many other interesting, but not directly relevant issues. This is quite reasonable in most contexts. But it can be unreasonable and counter-productive in fieldwork, at least in an extreme form. A fieldworker not only needs to know more, because they will be faced with more information that requires knowledge to sort through, but they need more reflection because they cannot leave the field to get additional training if ancillary issues require it. This limitation has the corollary that very careful and detailed thought needs to go into the formulation of research questions to be asked in the field and that these questions and related issues should influence prefield training.

I suggest the following as a potential method of prefield research preparation. First, develop a list of the research questions you want to ask. The first versions of this list should be done hastily, just jotting down questions as they occur to you, things you *might* be interested in researching in the field. These questions should be formulated before, during, and after reading all you can about the field language and theoretical issues you expect to research. Second, narrow this list down to those questions that are most vital to your research and career objectives. Third, organize the questions (e.g. what are the main vs. ancillary questions? Which ancillary questions accompany which

main questions? And so forth). Fourth, *operationalize* each question – how can it be made 'behavioural', i.e. into something you need to *do* in order to investigate it? Never stray from the empirical core of your research at any stage of planning or execution. Refine and add to this list as you feel necessary. Next, build an initial plan. How might you ask and answer these questions in the field? (By the end of this book, I hope that operationalizing your questions will be easier.)

Let's move now to another prefield question of importance, namely, selecting a location for your field research. Here is a partial list of selection criteria you might find useful:

(2.1) a. Language endangerment
b. Family history
c. Typological interest
d. Good things to eat
e. Geography
f. Funding agency priorities
g. Suggestion of advisor

For what follows, I suggest that each heading be thought of as a type of constraint. The individual field worker can then use them to guide her decision as to where to work by ranking them and trying to satisfy as many of them as possible, from most highly ranked down.

Language endangerment

If you are interested in the documentation and description of endangered languages, this will somewhat narrow down the range of language communities you have to choose from. You won't, for example, work in monolingual communities of tens of thousands of speakers undergoing no external pressure to switch languages or any obvious health or other external threat. Your concern will lead you most naturally to communities where there is a threat either to the physical survival of the people or economic or social pressure on them to switch to another language. To determine whether a given language is endangered, you will have to read on the socioeconomic conditions of the region, sociolinguistic relationships between languages in the area, speakers' attitudes towards themselves and their language, government policies on minority languages, likelihood of other linguistic studies of the language in question, and so on.

This is quite a worthy criterion. After all, if you study an endangered language, you could be contributing not 'merely' to linguistics but to history and the naturalistic record of Homo sapiens. Still, it is likely that the fieldworker will need more than these altruistic intellectual goals to see him or her through the long, lonely spells of frustration and ignorance that mark all initial periods of field research. So let's consider some other possible motivations.

Family history

Alex Haley's () *Roots* alerted and excited many people about the possibility of knowing about their family history. Haley's attention was initially caught by *linguistic* evidence of the similarity between words he heard from his grandmother and those of contemporary African languages overheard by him from fellow university students. If

he had been a linguist, he might have very legitimately chosen to conduct research on one of his identifiable ancestral languages from present-day Gambia.

The desire to research your family's linguistic history is quite a legitimate motivation for selecting a field language and location. This can further have the side benefit of creating family interest and support for your research and career choice, something lacking in most linguistic research projects, where family members, like the general public, often fail to appreciate linguistics.

Typological interest

If your goal is to advance our understanding of the linguistic possibilities of Homo sapiens, then a powerful motivation for field research could be the desire to advance typological knowledge, i.e. statistically valid clusterings of linguistic properties and their explanation. So, for example, you might go to Northern Brazil to study object-initial languages, which apparently only exist there. Or you might choose to work in Africa if you are interested in properties clustering in the phonologies of so-called 'click languages'. This selection criterion has the benefit of inserting your project from the outset into the current concerns of linguistic theory. And this is a very important advantage for the field researcher. As has been stated earlier, field research is a risky enterprise professionally. Your career options will be maximally enhanced if you can use your research results to challenge, refine, or advance current theorizing about grammar or methodology.

How then might one use typological considerations to select a field location? First, you should read widely in the typological literature. What are the main issues that stand out to you? Which ones are you most interested in? Discuss these with a typologist on your faculty or in another institution to make sure that you understand them and that they are indeed issues of current debate. Next, select an area of typology for concentrated learning. You need to master this area, reading, ideally, everything on the subject. Next, investigate regionally-focused journals and surveys (e.g. *International Journal of American Linguistics*, *Oceanic Linguistics*, *Journal of African Languages,* etc.). In this part of your preparation, you are looking for information discussed directly or simply mentioned and illustrated in some other context, that might bear on your research interests. What you would like to find, again ideally, is a region that you are attracted to and that seems to have languages in which the typological issue you wish to investigate is potentially quite relevant and widespread. Finally, and this advice goes for ALL field workers, *read grammars* from the linguistic/geographical area where you hope to work. Reading grammars is a vital component of the field researcher's healthy diet. Without knowledge of the intricacies of languages in the area, you enter that area under-prepared. This doesn't mean, of course, that you must agree with those grammars. But you must know them well. Form opinions, even become opinionated, but know the material and the analyses proposed by your predecessors in the area well.

Good things to eat

Some time ago, I attended a lecture by Professor Steven Anderson of Yale University where he suggested that an important criterion in selecting a field location would be 'where there are good things to eat'. I had never thought of that before. But it strikes me now as great advice. And it extends to more than gustatory attraction. Insofar as is possible, choose a place where there are things you enjoying seeing, eating, and doing in general. Feel free to choose a climate you enjoy. There is just no reason for

anyone to avoid their own comfort and pleasure in selecting a field location. It isn't always possible, of course, to satisfy these additional constraints, but it often may be and yet I suspect that many field linguists, if I am any measure, do not think about their own comfort, as though this were somehow 'wimping out' or anti-scientific.

In my own case, although I didn't use the 'pleasure criteria' in selecting my field location, I was fortunate nonetheless. Although the Pirahãs do not eat much I consider tasty, the surrounding Brazilian culture certainly does. The weather, scenery, rivers, beaches, music, people, and culture of Brazil have often inspired me to continue on with my work on Amazonian languages, even when I was linguistically discouraged, undergoing malaria treatment, or otherwise feeling tired of Amazonian field research. We all need such inspiration. This can come if we choose a place to work where, even if the research hits snags, we will still be able to enjoy where we are.

Funding agency priorities

Another important selection criterion for deciding where to work is the set of research priorities of the funding agencies most likely to support your research. Chapin (2004) is a useful and nearly comprehensive guide to research funding, based on Chapin's many years as Director of the Linguistics Program of the National Science Foundation of the USA. His book should be read by all younger scholars looking for funds to support their research. A vital part of field research is money. Know where to get it – and in large enough quantities to do your research well. Find out which funding agencies or programs within larger agencies fund research for the area of the world you propose to work in. Your university may have 'seed funds' to help newer scholars or students conduct pilot studies. Agencies like the NSF often have subprograms that set aside special funds for types of research, e.g. social sciences in specific regions of the world. In the United Kingdom funding agencies such as the Economics and Social Research Council and the Arts and Humanities Research Council have 'ring-fenced awards' that give special priority to specific types of research (e.g. studies in Modern European languages – great if you want to do field research on Basque or Northern Italian languages, for example). The success rate for most grant proposals hovers around 20-30%, depending on the size of the award, the research area, the funding agency, etc. A younger scholar will usually have to learn the hard way by competing for funds directly against senior scholars with plenty of fund-getting experience. So the newer scholar must invest time researching funding possibilities and agencies. Contact the relevant administrative staff at the agencies you are interested in. Most of them prefer to discuss potential proposals in advance, rather than merely getting them without prior discussion. Discussing the proposal in advance will usually make it more competitive (or help you discover that this agency is inappropriate for the project you have in mind).

A good programme officer at a major funding agency can be of inestimable benefit in helping the researcher prepare a successful research proposal. One of my earlier proposals to the National Science Foundation was rejected, though the comments from the reviewers were not so negative, mainly saying that my project was too ambitious. The Director of the Linguistics Program at the NSF in those days was Paul Chapin. He recommended that I bring the referee comments and my proposal to his office hours at the next Linguistic Society of America meeting. I did. He suggested that I keep the research objectives but triple the time and the budget (well, he did not suggest the latter, but that was entailed in the time suggestion). I did. I resubmitted. I got the

money. If it hadn't been for Chapin, I might have given up. He encouraged and helped me and thus is responsible for much of the research I have gone on to do over the past 25 years, almost all of it funded by the NSF, as I learned to become a more successful grant-writer.

Suggestion of advisor

For many linguistics graduate students, the choice of a language for fieldwork will be largely made for them by their advisor. However, even if the advisor is the driving force behind the selection of the language for study, the student should give some consideration to the factors mentioned here to better evaluate their chances of success before entering the project.

Self-Evaluation

In the movie, *Unforgiven*, Clint Eastwood reminds us that 'A man's got to know his limitations'. Fieldwork may sound like a great idea in the air-conditioned, bug-free library at Hometown University, but it may produce a different reaction when little children are pressing their hands against private body parts to determine your gender (or, as I sometimes suspect, your species), even as you are exhausted from a long trip and surprised by the smells and sounds of your new work environment. So be hard on yourself before you travel. A very important part of prefield preparation is self-evaluation: Do you have what it takes? Some of the components of the successful fieldworker include the following question, arguably the most important of all: do you have the talent and training for the job? And I suggest that the former outweighs the latter (as Boas himself emphasized to his students (Darnell ()). This talent and training will most clearly manifest themselves in the linguist's five senses (mental/physical data input devices) and her ability to interpret the results she gathers (mental data-processing). Do they think and read regularly about other languages? Do they have a well-developed ability to distinguish segments and prosodies? A talent for language-learning? An enjoyment of the exotic? A strong constitution? Ability to learn and teach with patience and clarity? Can they make friends easily and defuse tense situations? Can they tolerate lots of noise, successfully concentrate in a 'busy' environment; accept criticism for his or her government's politics, his or her skin colour (and many other things they can't change); tolerate lack of privacy and being laughed at every day?These are by far the most important toolkit the fieldlinguist will possess.

With regard to training, did the potential fieldworker's training include work with native speakers (ideally in their own environment)? Did they have teachers with field experience? Do they have cross-cultural experience of any kind?

There is a picture of me somewhere, where my back is covered with wasps and I am holding a microphone in one hand and a metal plate in the other, the latter in the futile attempt to ward the wasps away. I was stung about four times a day that summer. My right elbow was swollen to at least double size. My problem is that I sweat a lot in the tropics and the wasps apparently love the salt in my sweat (my theory). Anyway, I uttered many a foul word that summer. My sweat would trickle down my arm to my elbow, attracting wasps. Then I would rest my elbow on the table, without thinking, and that would anger the wasps and they would sting me angrily.

Another time I was working just under a low thatched roof near the river's edge. River frogs would get into the thatch and croak. That is bad enough, because it affects the quality of your data recording. But what was worse was that snakes, some of them poisonous, would then come up into the thatch to eat the yummy frogs. This became so

common that I kept a foot-long, hardwood club by my feet. I would hear a rustling in the thatch. Then a frog would jump out. Then a snake would come slithering out behind it, often right above my desk. WHOMP! I killed many a reptile that field session. I even enjoyed it. In fact, if I could not figure out a particular construction, morpheme, etc. I looked forward to killing the next snake. WHOMP, indeed.

Now, if someone had told me these two stories before I went to the field I would probably have had two reactions. First, this is unlikely to happen to me. Second, I would freak out if it did. I was wrong on both accounts. But as I think about my background, growing up in a rural area of Southern California, spending a lot of time on my grandparents' farm, with chickens, cattle, pigs, and all the smells, sights, and accompanying creatures and bugs that go along with cow dung, chicken entrails, and pig blood (we ate these creatures, you see, and even while alive, they were unsanitary), I can see that this was all good preparation for field linguistics.

If you come from such a background, some aspects of field research will be less difficult for you. However, most academic researchers probably are not raised on farms. Most come from cities I would think. If you are from a city and intending to spend a serious period of time doing field research away from a major city, then you will face similar things. What you face in this regard will, of course, vary by climate.

Exercise is important, though not always because fieldwork is so physically demanding. There is no question, of course, that if a linguist moves from an urban university environment to a rural field environment, that daily routine will differ and will almost certainly require more lifting, walking, climbing, and general labor, as well as more direct exposure to the elements. Exercise will help prepare anyone for such a change. But exercise is valuable too because it can give the fieldworker a break from the mental strain of both prefield preparation and fieldwork itself. Doing linguistics in the field involves all of the work and pressure of doing linguistics in the city but adds to this the straing of responsibility, novelty, culture shock, and change in diet, comfort, and physical labor, etc. unique to the field. Trying to exercise or work in novel, less comfortable surroundings, altering one's diet for a while, etc. are useful training for the field, for relatively little personal cost.

2.2. Specific knowledge and skills preparation

In this section, I want to discuss the various general ways in which you can prepare yourself for a more successful field experience, where the latter includes scientific objectives as well as personal well-being, and contributions to the local community.

Preparation of research questions

Consider again the list of research questions suggested in the previous section. You need to learn as much as you can about each of those areas before you leave for the field. Some additional suggestions to prepare for linguistic research in the field are the following:

(2.2) Identify an advisor or mentor

You need an advisor or a mentor – a professor or a colleague whom you trust to ask you useful questions and offer useful suggestions. The exact role of this person will depend on your career stage. For graduate and undergraduate students, of course, an advisor is vital. You need someone who is willing to answer your formal, informal, and personal questions, including what we in the United Kingdom know as 'pastoral care' –

personal counseling along the lines clearly expected from Boas by Mead in the quote from her letter above. There may not be such a person at your home institution. It could well be the case that your mentor is across the hall. But it is equally possible that he or she is in another country, especially if your advisor and your mentor are different people (the former playing a formal, institutional role, the latter a more personal, intellectual role). With the internet and ever cheaper rates for international phone calls (especially with voice-over IP technology), there is no overwhelming reason why the latter couldn't be the case.

Ideally, you want someone with field experience, preferably in the geographical and linguistic area where you will be working. You want someone successful in getting data and publishing. You want someone who can put you in contact with local community of scholars where you'll be doing research and give you the perspective of the wider community of scholars who will be 'consumers' of your research. You should have someone who can advise you on the bureaucratic, mundane aspects of fieldwork (e.g. how to fill out forms in another language and culture, whether to buy a pressure cooker, how many kilos of books are worth taking, when the best time to be in a particular field location is, what the best local transport is, how to stay in touch with the 'outside world', etc. You also want someone who can read your work in progress and tell you how to get data, ask questions, and read more to make that work better. In fact, it is not inconceivable that you could benefit from multiple mentors. And these need not, again, correspond to an actual academic advisor if your research is for a thesis. But keep the number to less than three. Even with two, you will find opinions and advice will grow exponentially.

Prefield Literature Review

Read on the country and world region you'll be going to. Find out about its politics (especially its relations with and its populace's attitude towards both your home country and the minority group whose language you will be studying), history, geography, foods, language, culture, and laws, especially those governing foreign researchers (e.g. the constraints on research authorizations and visas).

Next, read all the linguistics you can find on the region you plan to visit. Even if the specific language you hope to work on is an isolate or part of an unstudied family, read all you can on languages of that region. Areal characteristics of languages are likely to be relevant and useful for you. As you read – THINK. How could this study have been improved? What kind of data is necessary to write a paper like this? How much time did the author spend with the people to collect the data upon which his or her studies are based (unfortunately, grammars and papers often omit this information or are imprecise in their description of it. For example, if an author says merely that 'I have worked on this language for twenty years, what does that mean? Is the twenty years in question eight hours a day in the field collecting data or three months in the field every two years, followed by writing and reflection)? What has been written already about the structure of the language you plan to study? How much has been written about the ways in which that structure is put to use or acquired? How much on the history of the language?

Take time to compile an exhaustive bibliography on the language, the family, and the area. Then do your best to read it all (this is relative – for some languages there will be very little, hence this assignment is easy, for others you won't be able to read it all or even list it all, but will need to be selective, exhaustive reading and compiling for some categories, very little for others). Your own research questions will have to guide

you in your efforts. Classify the works you have read. Know which are most useful. Often, you will want to take these with you to the field.

Three websites I recommend that supply tools for field research are the sites of the Max Planck Institute for Evolutionary Anthropology in Leipzig (http://lingweb.eva.mpg.de/fieldtools/tools.htm), The Electronic Metadata for Endangered Languages Data (EMELD, http://emeld.org), and that of the Max Planck Institute for Psycholinguistics in Nijmegen (http://www.mpi.nl/tools/).

Anthropology

Early in the history of North American linguistics, linguistic studies were seen as a branch of anthropology. Today, however, most linguists would likely not think of themselves as anthropologists, nor would most anthropologists identify even descriptive linguists as a subfield of anthropology. Nevertheless, because doing field linguistics is doing linguistics in a natural cultural setting, the field linguist cannot avoid culture. They can approach the cross-cultural linguistic experience ignorantly or informed – that is the only choice. Read a general text, e.g. Foley () or Duranti (), and then do follow-up reading on topics of personal interest via the references to these texts. Or, if you already have a background in anthropological linguistics, you can read in the major journals, eg. the **Journal of Linguistic Anthropology**, **Journal of Anthropological Linguistics**, and 'four-discipline' anthropology journals, e.g. **Current Anthropology**. I also recommend that all field linguists read Sapir (1921) and work by Lucy () and others on the neo-Whorfian approach to the language-culture interface.

I also recommend corresponding with anthropologists who have studied the people whose language you plan to study or with anthropologists who have worked nearby.

Other books looking at the connection between culture and grammar (language structure) should also be read and carefully considered (e.g. Enfield's 2003, Ethnosyntax). In chapter ___ below I give a series of examples of the interaction between language and culture. That chapter reinforces the importance of anthropological knowledge for the average field linguist.

Computers

Every researcher must use information technology in their research. It simply is no longer acceptable to go to the field without good technological support for collecting, recording, and analysing data. Residual Luddites that do attempt to do so, however, should at least recognize that they cannot document a language nearly as well without modern technological aids as they can with this technology.

Documenting a language involves creation of a multimedia record of the language in use by native speakers. Describing/analysing a language also benefits tremendously from and often requires technological support. Software and hardware for sound analysis, video-editing, transcription, and preparation of data for long-term storage is essential to field research.[11]

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[11] Several researchers have suggested that it is important to keep old versions of software for processing field data because there can be incompatibilities with newer versions and the old versions may be necessary, so long as one still has hardware that will run them, to access the data properly. But care should be given to data-storage and the software used for this purpose. Proprietary software such as Microsoft Word should be avoided and, instead, use of XML software should be the standard.

Time must therefore be invested to acquire at least an intermediate level of technological skills prior to departure for the field. You should familiarize yourself with your computer and its operating system and all relevant programs. Understand how and where application files and documents are stored. Design an effective (for you) filing system on your computer for your work. Treat it as a portable office. Make *sure* you have hardware to back up all your files and programs (fast transfer portable hard disks are very convenient for this).

Have calendars with alarms to keep you to your time schedule and goals.

Documentation

In the development of linguistic fieldwork, notions of *documentation* and *description* have perhaps not been as carefully distinguished as they ought to be. In earlier years of my career, they seemed to be used nearly interchangeably. To write a grammar of a language, for example, was to document a part of the language. Likewise a dictionary was a form of documentation. More recently, technological advances allow us to create interactive databases for long-term storage and usage of *primary* data on languages, i.e. audio and video files. Such data bases refine our concept of documentation (though of course in the selection of data for such data bases the researcher intrudes and obscures). In my opinion, 'primary documentation' is the recording of audio and visual data. Secondary, and perhaps tertiary, documentation may be thought of as data in increasingly interpretative matrices (e.g. grammars, theoretical articles, and so on). The more interpretative the documents produced, the farther removed from primary documentation in the view advanced here. Again, in times past, description doubled for documentation as primary sources were not made available to general linguists and all that we have/had on many languages were data as selected and interpreted by linguists, explorers, anthropologists, missionaries, and others.

So now let us consider documentation a bit more (though audio documentation is discussed in chapter __ , section __ on phonetics).

If you want to share the pleasure of your birthday party with your friends, you could simply tell them about the party. Or you could show them photos and videos of the party. Your friends may not want to see all your photos, but at least they can judge for themselves whether Sally's dress was divine or the cake was lovely, etc. Still photos can isolate moments. It is very important, therefore, that a fieldworker be familiar with photography or at least that someone on the team have such knowledge. The quality of your equipment (see ___ below as well for general considerations on equipment) will depend on the knowledge available to you to use it, your budget, your goals, etc. But at least a five pixel digital camera with an array of focus options should be part of your toolkit. Read an introductory text to Visual Anthropology, e.g. those listed at http://www.visualanthropology.net/. This is not absolutely crucial for field research in linguistics but it can be very important for documenting certain kinds of claims on meaning where facial expressions, gestures, and other visual cues can be crucial to understanding the pragmatics of the utterances in question.

Medical/first-aid training

Fieldworkers should have basic training in first-aid, treatment of diseases common to their chosen area of fieldwork. Ideally, if they are going to be working in extremely isolated situations, they consider some training in suturing and bone-setting.

They should have access to some basic bibliographic sources (e.g. **Where there is no doctor** and **Where there is no dentist**) and have emergency numbers to call locally and internationally (by satellite) for consultant help if necessary.

One afternoon among the Pirahãs, I was pursuing my never-ending quest to understand the structure of the Pirahã verb. Suddenly, I heard yelling at the river. When I looked, the Pirahãs were running towards the river, talking loudly. Someone came to tell me that a man from the village, **ʔabagi** 'Toucan', was hurt. Sure enough. As they brought him up into our house, his left arm was beet red, amazingly swollen, and oozing pus. He had had an accident in his canoe and an arrow had entered his forearm just above the wrist and emerged on the opposite side, below the elbow. He had a fever and was in obvious pain, something the Pirahãs only admit to in extreme circumstances. He freely admitted that the pain was nearly unbearable.

What was I supposed to do about this? It was clear that every Pirahã there expected me, the outsider, to have some western medicine and to know what to do. So I did what any courageous, knowledgeable, and resourceful field researcher might do – I called my wife, Keren.

Keren was able to treat Toucan and he fully recovered. How? Well, before we ever set foot in the Pirahã village we both took courses in first-aid. We also asked various people – doctors, nurses, missionaries, and others – what kinds of health problems we were most likely to encounter. We then purchased medicines accordingly. In Brazil, as in many countries, a much wider and more potent range of medicines can be purchased over the counter than in the USA. So we purchased several hundreds of dollars worth (this in 1978) malarial medicines, analgesics, snake anti-venom (antiophidic serum), local anaesthetics, syringes, sutures, and so forth. During our first couple of days among the Pirahãs, we organized our medical equipment and supplies on shelves, with our most useful medical manual, **Where there is no doctor**, by David Werner, in the front.[12]

There are many field locations where the fieldworkers would not be expected to provide health care. There are many places where unlicensed people dispensing medicines would be in violation of local laws. But in many isolated communities, a linguist or anthropologist may be the only hope for health care. Certainly the linguist may need to care for his or her own health, or their partner's or children's, depending on where they are. Therefore, training, reading, equipment, and medicines are all crucial components of any fieldworker's kit.

Survey

Finally, if there is no extant sociolinguistic survey of dialects, language attitudes, demographics, geographical distribution of the language, etc., this should be undertaken at some point during the first field research trip. There are books that offer crash courses in this kind of survey work. One such is Blair (1991).

2.3. Non-Linguistic Considerations For Time in the Field

2.3.1. *Paperwork and bureaucracy*

[12] All fieldworkers should have a copy of this book. It can be ordered via the internet: http://www.hesperian.org This website also contains a wealth of information and material on health care in rural environments, etc.

Going to 'the field' means crossing political boundaries. And this almost always entails getting two broad types of authorization: authorization to enter the country and authorization to do research. These permissions usually require the fieldworker to apply for special visas, to get medical exams, criminal checks, official translations of diplomas, etc. It will take time. And *nobody* enjoys the process. This book would be less honest or helpful than it should be if it ignored this unpleasant aspect of fieldwork, so I will try to highlight some of the bureaucratic processes involved and suggest ways to help the process run more smoothly.

Most countries will not allow fieldwork on a tourist visa. And in some countries tourist visas restrict the tourist so that they cannot visit minority communities outside of major cities. I know some linguists who have done fieldwork on a three-six month tourist visa, some even multiple times. Many an important linguistic study has been done without proper authorization. But not only is this failure to secure the proper visa unethical and illegal; if discovered it could bar the linguist from current or future funding for the research (most funding agencies require evidence, in advance, that the researcher has secured or will secure the proper legal documents for his or her research from the local government).

So you will need to get a visa. But you are likely also to need permission from a government department, ministry, etc. responsible for minority affairs. And your scientific project is likely to need authorization from the national research or science foundation. The latter may require that you have a national partner, i.e. a linguist or other appropriate specialist who is personally supportive of your research and is willing to be your academic sponsor. Often these various permissions seem to produce 'ordering paradoxes', 'infinite regresses', or 'Catch 22' situations, e.g. one source tells you that need government authorization before you can get scientific authorization, while another source tells you that you need scientific authorization before government authorization. I have seen foreign researchers spend a year or more getting authorizations in some countries.

In most countries these processes are all made easier and faster if you know the people responsible for the authorizations. It is almost never possible for you to simply handle this all with a phone call or over the internet. So how do you get to know the right people? You will need money, time, and a willingness to bite your tongue and keep silent at times.

First, where bureaucracy is especially labyrinthine, the prospective fieldworker should attempt to find 'seed money' for a trip, on a tourist visa, to the country where they would like to work. Before leaving, they should find out who the local linguists doing field research are. They are quite likely to be the people who will be asked, eventually, to evaluate the research proposal proper. If the linguist is lucky, they might be able to establish initial contact with someone who could help, a graduate student or a professor from the target country would could tell him/her who they need to see, where to go, etc. This person might even be able to make the initial contacts for the fieldworker, provide him/her with a letter of introduction, etc.

It would be useful if the fieldworker could speak the national language before venturing to the target country, but this is not necessary. Academic contacts will speak English and if all goes well they may be willing to help, advise, and even speak to the authorities on behalf of the fieldworker. There is, to be sure, occasionally some distrust of Western Europeans or North Americans, but by and large the international scientific community is interested in promoting high-quality research and the fieldworker is likely to be received warmly and make life-long good friends. So, although these initial

contacts can be tense and humbling, they often end up pleasant and rewarding, both professionally and personally. One should look at these initial steps as part of the fieldwork. They are.

On this first visit, enjoy the food, the nightlife, and the people of the country. Make the most of the experience. Life is short and you only go around once (so far as any one can prove). So make the most of it and have a good time. That would be neither unscientific nor unprofessional.

Expect the entire process of authorizations, once again, to take from 3-18 months and expect to travel at least once at the beginning of the process (and perhaps again after the process is well underway) to the target country to get help in speeding the process along. Plan ahead! Also, keep careful written records of your contacts, their expressions of support, and their willingness to help, etc. Get letters from them whenever possible. Funding agencies will want to know that you are aware of the need for authorization, etc. and that you have it well in hand.

Now I want to consider some additional nonlinguistic factors for time in the field.

2.3.2. *Entertainment*

When I took my first anthropology class, at Grossmont Junior College in El Cajon, California, in 1970, the teacher (who influenced me tremendously, but whose name I cannot remember), mentioned that what you read in the isolation of the field will affect you more than it would in your home community. That is, it will reach your emotions and mind more deeply. I have found that to be correct in my experience. General suggestions I have found useful in my own field experience include the following:

(2.3) Have a time for yourself: you need a time away from the language teachers, away from as much of the hustle and bustle of the language community as possible (if it is appropriate – it will not always be). Some time where you can simply reflect, relax, eat one of the chocolate bars you brought from the city, write letters to friends, etc. Time to just 'chill'.

(2.4) Read: take books to read in the evening or whenever the best time turns out to be in your field situation. I take a mix of novels, history, philosophy, and biographies. I find it necessary for myself to mix light and heavy reading. I can't take too much of either without a break.

(2.5) Movies: Taking movies to the field is easy these days. Take DVDs that you are willing to watch with members of the community. It will be possible at times to watch DVDs alone, with no one around, but assume that someone will want to watch DVDs with you. Choose programming that will entertain and relax you, but not offend the community's sensitivities. Also, it is important to remember that movies and other programs can be great educational tools for the community. So take a selection of DVDs just for showing the community. The Pirahãs, for example, tremendously enjoy material about other indigenous communities and their daily lives, as well as about animals of all kinds. National Geographic movies are very useful. On the other hand, the most popular movie among the Pirahãs is the old John Wayne movie, *Hatari*, about capturing wild animals in Africa.

(2.6) If your community is accessible to mobile phones, I am sure that you will take one. If the community is not accessible to mobile phones, then I suggest that you save up to purchase a satellite phone. There are several options on the market and most of them, though quite expensive with high per minute charges, can allow you to maintain

contact with friends, colleagues, and others in the most remote locations. Some people find this very useful. For example, with a satellite phone you can call for linguistic help, phoning your home institution, etc. to get expert advice on how to analyse or collect data on a particular subject (not to mention emergency help). Some satellite phones (e.g. the Nera World Phone that connects to Inmarsat) also can enable you to send and receive email, which can also be useful for getting advice or sending examples of constructions you have collected, along with your ideas on them, to another member of the research team, or a colleague or mentor, to ask for help, advice, etc. On the other hand, satellite phone communication is expensive so will not be a way to chat freely with your friends on the weekends.

2.3.3. *Journaling*

For the past three decades, I have, off and on at least, kept diaries, some of which have evolved into journals. I have to admit that my journals have by and large had no 'theory of journaling' behind them. They are unsystematic records of my emotions and activities for the most part. But they could be more useful to me in my research in my ability to perform well in fieldwork. I want to offer some advice that I wish someone had given me on how to keep a journal.

Journals

The first thing to get clear on is that a journal is not a diary. A journal is not simply a chronological record of what you have done during the day, though it might include that. So what is a journal for? What are the advantages of keeping one? Here is a partial list of ideas:

(2.7) Reasons to keep a journal

a. To maintain a personal record of your time in the community, e.g. what has been hard for you, what has provided new insights on language, life, culture, etc. what you are thinking about on a given day, thoughts about family and friends from your field site vantage point, etc.

b. To develop a record of your scientific findings, your incipient ideas about analysis, suggestions to yourself about what to collect the next day or week, ideas that did not work and ways that they might be retested, etc.

c. To have someone to talk to. The field gets very lonely. There are times when no one around speaks your native language. You need to talk to someone in your native language. Talk to your journal. I find that this is very useful. I can rant to my heart's content about something and get it out of my system. I do not write these parts of my journal for any present or future audience except myself, and would never want anyone else to see some of my 'rants'. But it is good therapy for me nonetheless and I highly recommend it. In fact, days or weeks later you may return to read your 'rant' and learn how wrong you were about the matter that so exercised you at the time, building up a valuable store of lessons on your growing understanding of the culture and yourself. Also record what pleases you about the community, the location, the research. Record positive observations too!

d. To have a place to focus and organize. Journals can provide you a space for focusing your thoughts and organizing your thoughts and future course of action in research, relationships, etc. A journal can be where you set and revise your goals, redefine success (as the saying goes 'If at first you don't succeed, redefine success'), and make notes of new things to read, new methods to try, etc.

e. To track your intellectual and linguistic development. Writing down what you think you know and what your attitudes are towards the work, the community, the general aspects of field research can, as you read your own entries over the months of fieldwork, provide an excellent source of data for you to study yourself and your own development as a fieldworker. This can be useful for setting further goals, but it can also be useful as an encouragement that you are not as bad as you thought you were at this job (or alternatively, this can be a source of humility if you had too high an opinion of yourself).

f. To record memories for post-field write ups of your experiences, your developing analyses, etc. Journals also and naturally provide a historical record of the linguist's time, but also of the community. If you are careful to record observations daily about the people (see below) then your journal, as a document that scientists (including you) might look at years hence can provide a record of cultural and historical change of the community under study and of the role and relationship of the fieldworker in these changes.

g. To develop your writing style and ability. Journals provide an excellent opportunity to become a better writer. Let yourself go. Be flowery. Try new ways of writing. Develop your writing style so that you can express your observations in such a way that your own personality comes through. This makes for better field writing.

Approaches to journal keeping

One approach, which I learned from Peter Ladefoged, is where the journal takes the form of a scrapbook, with photos, small bits of memorabilia (such as a feather, a flower, a fish hook, etc. – small things that are evidence of important or memorable events in the experience), as well as annotations. Keeping pictures of your language teachers can be very useful and provide a personal link with your field research for years to come.

Another approach is less interesting, perhaps, but it is my own, perhaps lazy, approach. I simply write in my journal, nothing else. My journals are simply written records that include the information suggested above and below.

Things to include in a journal

Here are some suggestions for what to include in a journal that I believe are useful for a scientific journal. (i) the date and time of the entry; (ii) the location where the entry is being recorded; (iii) the weather at the time the entry is recorded; (iv) your mental and physical health (i.e. how are you feeling?); (v) the village activities going on at the time of the journal entry and others planned for that day, i.e. before the next journal entry. An analysis of observed activities should also be included; (vi) track an individual, a family, or other cohesive group during the day and record their activities (gists of conversations, who did what during the day, where they went, how far it was from the community center, etc.); (vii) village health – is anyone ill as you record your entry? What is the illness? Is it contagious? etc; (viii) your ideas on the language, culture, nature, etc. (Theoretical, descriptive, musings, etc.)

Additional suggestions journal writing

Write freely. Allow yourself opportunities to release a 'stream of consciousness', without worrying about form or even much about content.

Describe scenes and events that catch your attention, rich in details. These details can help you write up your field experience later. Clifford Geertz () talks about 'thick' versus 'thin' descriptions. By this he means that:

"Cultural analysis is intrinsically incomplete. And, worse than that, the more deeply it goes the less complete it is… There are a number of ways of escaping this—turning culture into folklore and collecting it, turning it into traits and counting it, turning it into institutions and classifying it, turning it into structures and toying with it. But they are escapes. The fact is that to commit oneself to a semiotic concept of culture and an interpretive approach to the study of it is to commit oneself to a view of ethnographic assertion as… 'essentially contestable.' Anthropology, or at least interpretive anthropology, is a science whose progress is marked less by a perfection of the consensus than by a refinement of debate. What gets better is the precision with which we vex each other." (29)[13]

In Geertz's understanding, ethnography is by definition "thick description"—"an elaborate venture in." Using the action of "winking," Geertz examines how—in order to distinguish the winking from a social gesture, a twitch, etc.)—we must move beyond the action to both the particular social understanding of the "winking" as a gesture, the mens reaction, the state of mind of the winkers, their audience, and how they construe the meaning of the winking action itself. "Thin description" is the winking. "Thick" is the meaning behind it and its symbolic import in society or between communicators. The fieldworker should attempt to develop this kind of descriptive style in their journal. Among the cultural values that should be included are: community recipes, aphorisms, folk wisdom, myths, etc. It is also useful to provide pictures and samples of plants, insects, etc. whether you are interested in studying ethnobiology, or simply generally interested in these topics.

The form of the journal

First, you will need material to write with. You will need to decide whether you want to keep your journal on your computer or in hard copy. If the latter, are you going to keep your journal in a notebook or a hardbound book? I suggest that you use indelible, water-proof and acid-free ink and paper for your journal, and that the pen-paper combination you use doesn't result in the ink being absorbed in the paper over the years in such a way as to obscure what you have written. Let me close this section by a consideration of an alternative type of journal, the blog.

Blogs (Weblog)

Blogs are different from journals primarily in that they are written for an potentially large audience and located on a public or semi-public space on the internet. They can be useful for that very reason, by letting others see, in real time (as you post to the internet, perhaps from a satellite phone), what you are going through. They can enlist help and advice, they can later serve as journal records, and are otherwise every bit as useful as a journal. Therefore, what I have to say about journals also applies to blogs. In fact, there is no reason why a journal could not also serve as a source of blogs, leaving the private kinds of observations out.

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[13] This comes from: http://academic.csuohio.edu/as227/spring2003/geertz.htm

2.3.4. EQUIPMENT AND SUPPLIES

2.3.4.1. General issues

Any discussion of equipment or technology will date a study quickly. So I do not intend to spend much time on this. However, there are a couple of things to say in this regard that will be somewhat impervious to time.

First, technology is vital in field research. Even though I believe that I have very good 'ears', in my experience machines have been invaluable in helping me to notice sounds and patterns which my unaided ears had missed. And technology provides a record for the future, however outdated it eventually becomes. Consider, for example, the significance of the portable cassette tape-recorder for the history of field research. It is true, trivially, that early fieldworkers got by without this, now outdated, device, just as everyone gets by without inventions yet to come. But wouldn't it now be priceless to listen to audio tapes or watch video tapes made by Sapir, Boas, Newman, and others, checking their facts and interpretations more carefully, or possessing a more complete record of the languages they studied? As we recognize the need to study, for example, endangered languages, technology capable of accurately preserving and measuring the sights and sounds of these languages becomes ever more important.

Some questions to ask with regard to field-equipment are:

(i) Who will be able to use the output of your equipment now and in the future?
(ii) Is the equipment portable?
(iii) Does the equipment provide state-of-the-art accuracy, or as close to it as the fieldworker can afford?
(iv) Will the equipment help record both the grammar and its cultural matrix?
(v) Does the equipment use a practical power source for the location in which it will be used (such as solar power)?
(vi) Does the fieldworker's equipment include satellite capability, for email and phone contact from the field site to any part of the world?
(vii) Do you have backup equipment for crucial items, e.g. extra microphones, computer(s), recorders, etc.?

Point (iv) may seem strange, but it can be taken as a reason for using, in today's terms, high-quality camcorders in the field, rather than relying exclusively on audio recordings. It is also a reason to use portable computers in the field which have state-of-the-art video and audio editing capabilities (e.g. the Mac G4 laptop in 2003). In purchasing and planning, remember that quality is not something to be overly economical with – pay top prices if necessary to get top equipment. There are other areas to be frugal in, if that is necessary (and of course it always is).

2.3.4.2. Portable power systems

There are a number of small, relatively inexpensive (but fossil-fuel consuming) generators available in most countries. These are extremely useful and convenient tools. In fact, I have a lightweight generator (approximately 20 pounds) that will supply all my energy needs in the field (lights, battery charging, etc. – it will even power a refrigerator). But generators have severe disadvantages, e.g. (i) they are environmentally harsh (use of fossil fuels); (ii) they require significant weight for fuel; (iii) they require maintenance and careful storage and they break down. Therefore, I suggest that the field linguist use a small solar-powered system when practical.

A solar power system would not have to be large if used only for charging a camcorder, computer, and audio recorder, and for small light bulbs. I recommend two 32-watt solar panels (roll-up rather than rigid, for easier transport). These are then

connected by cables to a 12 volt, deep-cycle battery (e.g. the kind used on many small boats in the US. Deep-cycle batteries charge better and have a wider voltage tolerance). This type of battery can be quite heavy, however, and needs to be replaced every one-two years. Smaller batteries (e.g. a motorcycle battery) can be used, but these are unable to provide as much power. You will then need a voltage converter to change the power coming out of the battery to 110 (or 220) from 12 volt. A voltage regulator would be useful because it can keep your batteries from overcharging or running while undercharged. It will shut off the relevant input or output to protect the battery. If you choose not to purchase and connect a voltage regulator, you should get a voltage meter to check the power in the battery. It should never go about 13-14 volts and never below 11 or you will be without it soon.

Finally, wherever possible, native speakers should be trained in the use of the equipment. This is important training for them and can be very helpful for the linguist, even avoiding the need for the linguist to return to the community for small samples of data that can now be collected by the native speakers.

2.3.4.4. Consummable study supplies

You will also need to take pens, papers, and other office supplies, even though you should rely more on the computer than on paper. Consummable study supplies I take to the field include:

(2.8) Consummables that might be useful:

a. Flashlight batteries and AA-size batteries. I only take alkaline batteries. You can buy fewer of these than would be necessary for non-alkaline batteries since they last so much longer. Therefore, they require less space.

b. Blank DVDs are important for backing up data or making copies of lab sessions, songs, etc.

c. Indelible, acid-free, waterproof ink pens. Buy enough for one a week, minimum.

d. Other pens: take various colors of pens for color-coding data and a range of other uses.

e. At least 500 sheets of paper for a six-week stay, with side holes for including in notebooks (or take a paper-punch).

f. Separate notebooks (appropriate for the paper just mentioned). You will need one notebook for every major division you want to make (e.g. 'Verbs', 'Nouns', 'Transitive clauses', 'Subordinate clauses', and so on).

g. Paper clips, staples, stapler, clear adhesive tape, and plastic bags, e.g. rubbish bags of different sizes, sandwich bags, etc. The plastic bags will be vital, especially in rainy and humid areas, in preserving your notes and many other supplies (e.g. matches) from the effects of humidity and leaky roofs.

h. Rice for dessicant and tupperware.

i. Back-up computer battery: computer batteries do fail. I always take an extra computer battery to the field.

j. Cottonettes and rubbing alcohol – these are useful for for cleaning playing heads (on older model cassette recorders. But if possible avoid these and purchase a solid-state recorder). These are useful for personal hygiene as well, to help cut down on orifice fungus. (I recommend that you put alcohol mixed with vinegar (1:3 ratio) in your ears after every swim in the river, or hydrogen peroxide) .

k. Recording tapes or memory cards (for solid state recorders).

l. Plastic binders/covers for loose papers. Papers which are not yet in particular notebooks should also be carefully stored and plastic binders or some other way to render your notes water-resistant are extremely useful.

2.3.5. Tools

Take a multiuse knife or two. I use both a Leatherman and a Swiss Army knife (since the two types have different tools). A hammer is also useful. The tools you choose will depend, obviously, on your particular field situation. If you use a boat motor, you will need to know how to repair it, at least basic maintenance and simple repairs, and you will need tools for that. I also recommend that if you use a boat, that you have replacement parts, especially ignition modules, waterpump, fuelpump, and spark plugs.

No fieldworker should travel without two essential aids: duct tape and durepox. The former can fix most broken things. Durepox (which comes in two clay-like sections, to be mixed together) forms a chemical bond which is strong enough to repair holes in boats and cars. It is very valuable in the field. A flashlight, e.g. one that can be attached to your head for hands-free lighting when trying to read or repair something is also useful. The list can always be added to, of course, but each item is more to carry, more to lose, more to potentially come between you and the community.

2.3.6. Care of equipment

The field is usually rough on equipment. Whatever you take with you is likely to be exposed to some combination of the following: high humidity, sand and dust, bugs, rain, and temperature extremes. As you travel and pack and repack, heavy bags and other objects are likely to be put on top of delicate equipment, your equipment will be dropped, perhaps even in a river, and will otherwise be treated very differently than it might, say, at your home institution.

There are special carrying cases with adjustable foam linings and quality rubber seals for laptops and other sensitive electronic equipment. These cases, when maximally useful, are of metal or hardened plastic (yet relatively lightweight), waterproof, and able to hold equipment tightly in place and secure, without rattling around inside. There must be room in the equipment case for a dessicant of some sort if you will be in a wet or humid environment. One popular dessicant is silicon gel. Cheaper alternatives are available, as discussed in ___.

We now turn to consider the last, but certainly not least, issue in non-linguistic fieldwork issues, having your partner and/or family accompany you to the field.

2.4. FAMILY IN THE FIELD[14]

2.4.1. Your partner

If you have a partner who enjoys the field experience, you are most fortunate. My former partner was raised in the Amazon by missionary parents. Living among Amazonian peoples turned out to be the most enjoyable activity in the world for her. She can tolerate the bugs, heat, and other hardships much better than most people can. And she is extremely organized, (which I am not), which helped tremendously in many

[14] In 2005 I was interviewed on the BBC 4's Excess Baggage programme about raising children in the Amazon. This is available at: http://www.bbc.co.uk/radio4/excessbaggage/index_20050917.shtml

ways, from shopping and packing, to organizing each day in the village. Her presence always enhanced my own ability to work and thrive in the field. When both you and your partner enjoy the field, this is a tremendous personal and professional help.[15]

I only went to tribal areas a couple of times without my family. In each case my productivity fell by more than half and I swore I would never do it again. People are very different. Whereas some linguists might relish the solitude of individual fieldwork, I have never found it easy to be alone in the field, though when my family has gone with me, i.e. most of the time, it was usually an enjoyable experience.

Even with the family it can be hard. My first visit to the Pirahãs, my oldest daughter and my wife got very severely infected with falciparum malaria. There were rarely any field visits where one of the family didn't get very ill.[16]

The first time that my family went with me to visit the Pirahã, 1979, was only the second time I had ever gone to the Pirahã area. Things were apparently going very well. One day I was lying in my hammock, swaying in the breeze off the river and memorizing Pirahã words. I remarked to my wife that 'this life is really rough', with lots of sarcasm. But I spoke too soon. It *can* be rough. Within 24 hours she and my oldest daughter, Shannon (8 years old at the time) had fevers of 104 degrees and severe headaches and backaches. I had taken introductory health classes during my SIL training, and I had several medical resource books. Since neither Keren nor Shannon were suffering from chills, I assumed that they could not be suffering from malaria. Also, I didn't think (why I have no idea) that malaria would begin in two people simultaneously, like any other infectious disease. (They both had falciparum malaria, the most virulent South American form.) So since their symptoms matched something I had suffered from on fieldwork in Mexico, typhoid fever, I began antibiotic treatments. They got worse by the day. I had no radio to call for help or advice because these were then prohibited for foreigners in tribal areas, and this was before the invention of satellite phones. A plane was due to arrive in a week, but Keren had now drifted into a coma, after being delerious for about 36 hours. Shannon was drifting in and out of consciousness. Neither one had eaten or had more than a liter to drink in four days. I had to do something or they might both die. And I was exhausted, taking care of them and watching my 5 year old daughter and 2 year old son. The Pirahãs seemed to me uncaring and cold during this time, though later I came to realize that this was part of their stoic philosophy of life, not a reflection of how much they cared for someone, nor a lack of concern. But I only had an old 9 horsepower motor, with very little gasoline, and no knowledge of the way out to the nearest doctor. I had done no geographical research, just assuming I would fly in and out of the village, as though I were going to a US regional airport. I am not sure what I would have done, but a Catholic lay missionary, an Italian man named Vicenzo, now deceased, came up to visit the Pirahãs

[15] However, it is important, especially if you are both linguists, that you are not overly competitive with one another and that you are not defensive about your language-learning, linguistics, ability to cope with the environment, etc.

[16] However, this is not standard for all fieldworkers! Desmond Derbyshire, a pioneering Amazonianist, told me that he had an excellent language teacher within his first thirty minutes among the Hixkaryana, who worked with him regularly for the next couple of decades, and that he could never recall having been sick in the village.

on behalf of a priest he knew. Seeing our plight he told me to take his boat, a small aluminum canoe, barely big enough for my family of five, with a 6.5 HP outboard motor. He told me how to get out. However, because he gave me all the place names in Italian and because I didn't yet speak Portuguese well, no one I encountered farther down the river knew what I was asking about. We left the village with Keren and Shannon lying down in the middle of the canoe and Kris and Caleb sitting near the back with me. The water was nearly up to the edge of the canoe. We were moving about 8 miles an hour and I had only 20 litres of gasoline, with no idea, in spite of Vicenzo's help, of how long it would take us to get to the next river, the huge Madeira, where boats could be hailed to take us to the nearest town. After several false stops and turns, almost out of gasoline, we arrived at a small settlement and several men hung hammocks on poles and carried Shannon and Keren through a jungle path to the Madeira river, about a one-hour hike. I followed along with supplies, carrying Caleb and Kris. A local family, Godofredo and Cesaria Monteiro, poor as all the others, took us in and fed us (I had taken no money – we were a complete liability for that family). After waiting for three days, with Keren ever nearer death, a boat came. Men from the community carried Keren and Shannon down the steep banks of the Madeira, at 3AM, to catch the big boat to the nearest town. Loaded on the boat, I was impatient to get to the hospital. The next day, I offered to pay the boat owner any price he wanted to take us in the motorboat he was towing to the nearest town, which would have saved us some 12 hours. He said 'Comrade, if it is your wife's time to die, she will die. Rushing will not save her.' Then he stopped the boat and his crew played the men of a local settlement a two-hour game of soccer, with me beside myself with rage and fear. Keren and Shannon were both losing weight and had terrible cases of diarrhea. My two year old and five year old were running about the boat and I kept trying to keep them still. Finally we reached the town of Porto Velho. The doctor examined the two and said that Shannon might live but that Keren would die that night and that I should call her family, which I did. She weighed 76 pounds and had lost a lot of blood (malaria causes you to lose blood through urine). But she lived. And we have been back many times. That was more excitement than I had bargained for. But it is, for better or worse, part of what fieldwork can be like if you are unprepared. Don't be. I have had malaria many times since then, as all of the family, except our son, Caleb, have. But being prepared has meant that none of the subsequent cases were all that serious (except for the time that I came down with malaria after just arriving from Brazil, while on a trip to Disneyland with my family. I came close to dying. But that is another story).

2.4.2. Children and fieldwork

Your children's mental, physical, and social health will be of utmost concern to you in the field. There are some dangers and things to worry about, but overall, the field experience can contribute to raising aware, resourceful, and independent children, respectful of other cultures and races. I highly recommend taking your family to the field, in spite of occasional danger and adversity.

In 1977 my family went to Chiapas, Mexico for 'jungle training' with the then Summer Institute of Linguistics. During our first few weeks in Chiapas, my six-week old son, Caleb, came down with meningitis. We gave him six adult does of antibiotics per day for days (I forget the exact treatment). He was very, very ill. And his first set of teeth were all weakened and bad because of the antibiotics. And, as related above, in Brazil, my daughter Shannon nearly died with malaria. Another daughter, Kristene, came down with hepatitis. Health concerns should not be taken lightly. On the other hand,

they should not be overly dramatized. Kids are tough. And cuts, scrapes, sickness, and environments demanding adaptation are good for them. But it is important that their parents react well to and enjoy the same environments. If your children sense fear or guilt on your part for taking them, they will respond with fear and a sense that your guilt is well-deserved. I noticed early on that whenever something unusual or potentially unpleasant occurred, my children would immediately look at my wife or me to see our facial expression. If we showed fear, then they did too. If we seemed unperturbed, then so did they. You must be well-adjusted to the environment, secure, and confident in your ability to cope with most things that come your way before you take your children to the field. But if those conditions are met, they should thrive.[17]

Act like they are fortunate to have these experiences and you all will have a great time too! That is the secret.

Part of well-being for your children is to ensure that they have an adequate social life. This cannot be based around you and/or your partner. They need people their age. Therefore it is essential that they make friends in the community under study.

My daughters, Shannon and Kristene, went with me to the live among the Tzeltal people when they were 6 and 3, respectively. They went with me to the Pirahãs when they were just a year older. I remember among the Tzeltales, waking up about 630AM on most days. That was late for the Tzeltales. Our 'door' was a set of poles placed upright in the doorway. Most mornings, a few poles were moved out of the way because, Kris, three years old, had left the house. I would find her in front of a Tzeltal's home, a huge cup of sweet coffee in one hand and a fistful of corn tortillas in the other hand. Shannon, then 6, would often spend the day visiting different Tzeltal villages with Tzeltal girls. Sometimes the girls would dress Caleb up in Tzeltal baby clothes (he was about 2 months old) and take him around with them to other villages (though not far because he was still nursing). Among the Pirahãs, Shannon and Kris would often disappear in a canoe with Pirahã girls in the morning and return in the afternoon, after a day of fishing, picking berries, and giggling. They seemed to enjoy themselves and tell me that they have good memories (they are now both in their 30s). On the other hand, the Pirahãs (like many peoples in the world) are sexually active very early and the entire culture sees sex at most ages as a natural and innocuous pastime. So my daughters were receiving sexual advances early on. But this need not be any big deal so long as all are prepared and they know that they can say no. This could be a problem in some societies, but the Pirahãs never expected us to go along with everything they did, because we were obviously different from them.

Children also need physical exercise and conditioning. In the normal course of events, fieldwork toughens them up physically, emotionally, and mentally. Let them do the normal village chores (gathering firewood, hauling water, collecting fruits, etc.) and they will almost certainly grow up fit. And they will be far from fastfoods and other 'junk' food. They will often mainly eat fish, wild fruits, and drink water. Not a bad died for them, as a matter of fact.

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[17] I remember my first LaMaze (childbirth preparation) class, for my second child, Kristene, when I was 21. The instructor said, "Folks, there is no secret to raising children. If you show them love and respect, they will grow up healthy even if you raise them on the dark eating raw meat." Pretty close.

Of course, children's education in the field must be good enough to ensure that when they return to their home country they will be able to fit in (academically at least) with no serious problems. Both formal and informal education of children in the field will take fieldworker's time. Nevertheless, it is such a rich experience for all involved that it is, in my opinion, easily worth the time involved. Formal education of children in the field can be carried out as part of an accredited correspondence school, e.g. the University of Nebraska's course (http://eeohawk.unl.edu/ishs/) or the Calvert School (http://www.calvertschool.org/engine/content.do). These were great experiences for my children and they generally found normal US schools easy, and always were placed in the most advanced sections. Of course, children in the field can also learn about culture, linguistics, environment, nature, and a host of other things that are very hard for other children to learn as well by first-hand experience. Discussing cultural values of the Pirahãs, linguistic issues of the Tzeltal language, Banawa puberty rites, etc. with my children was enriching for all of us. And my children often asked better questions about culture than I did, helping me refine and improve my research in various ways. Buying a celestial map and showing your children constellations, stars, and other celestial objects is very enjoyable. (In the Pirahã village, we have even seen man-made satellites.) Your children can learn about local flora and fauna, about nature preservation and so on. There are limitless educational opportunities for children in fieldwork.

Children can also contribute to the work by noticing things that the linguist fails to notice, by learning the language quickly and better in many cases than the linguist, and by learning cultural values more directly than the linguist. They really can be an integral part of the research team. And I have found that having my children with me helps me fit into the community better and that the community trusts me much more if it sees me as a 'family man' than as a lone researcher.

When we first went to the Pirahãs' village, my children were upset. They thought that the Pirahãs were ugly, dirty, and weird. I tried to teach them about valuing differences, but my words were ineffectual. After nearly 8 months in the village at one stay, however, my children seemed to be making good friends. We were then visited by a Brazilian army major who had come to check out rumors of a gringo in the jungle exploiting Indians. The major said that the Pirahãs were the ugliest people he had ever seen. My children were angered immediately and opened up on the major, telling him that he didn't know what he was talking about, that the Pirahãs were beautiful, kind, and fun and that anyone who thought they were ugly needed to have their head examined. Not only did my children react in fluent Portuguese (because of their time on the field), but they showed that they had learned a beautiful cultural lesson, something no other situation could have taught them so well.

But there is no question that taking one's children to the field will have a huge logistic impact on your fieldwork, quadrupling perhaps the amount of equipment, books, and supplies you might otherwise take. You will need school books, candy, toys, presents, and so on. I have carried sets of encyclopedia through the jungle on my pack, for miles, so that my children could have reference works for their correspondence courses.