Chapter 2 Definition and Goals of Descriptive Linguistic Fieldwork

2.1 The Definition of Descriptive Linguistic Fieldwork

We define descriptive linguistic fieldwork as the investigation of the structure of a language through the collection of primary language data gathered through interaction with native-speaking consultants. Many other definitions emphasize the notion that the fieldworker must live like and with the native speakers of the language to be studied. For example, Everett (2001:168) defines linguistic fieldwork as:

...the activity of a researcher systematically analyzing parts of a language other than one's native language (usually one the researcher did not speak prior to beginning fieldwork) within a community of speakers of that language, prototypically in their native land, living out their existence in the milieu and mental currency of their native culture.

A similar emphasis is also in Foley's discussion (2002:131):

The ideal way to study the language of a traditional community is in situ, living with the village, learning as much of the social customs of the people as possible.

The same emphasis is present in Aikhenvald's (2007:5) definition as well:

Linguistic fieldwork ideally involves observing the language as it is used, becoming a member of the community, and often being adopted into the kinship system.

Aikhenvald (2007:5–6) goes somewhat further than Everett and Foley, in that she distinguishes between "immersion fieldwork", which corresponds to her definition above, and "interview fieldwork", where the relationship between fieldworker and speaker is superficial and perhaps shorter, in that it is limited to interactions during fieldwork sessions. We hold that the success of the fieldwork endeavor is not based on whether fieldwork is of the "immersion" or "interview" style, but on whether it is intelligently or poorly conducted. In most fieldwork there is an "immersion" dimension, as the fieldworker tries to immerse her/himself in the community, as well as an "interview" dimension, when the fieldworker sits down with a consultant and asks questions. To be sure, no fieldworker has ever conducted fieldwork without asking questions. Equally true is the fact that "interview fieldwork" can be done with disastrous results, but then again, the same thing can be said of "immersion fieldwork", which can yield little analyzable data.

Everett, Foley and Aikhenvald are purists in this precise but romantic conception of fieldwork, much in the sense that the "participant observer" in the area of sociocultural anthropology would consider himself or herself a purist in his/her field.

Other fieldworkers, such as Hyman (2001) and Samarin (1967:1–2), would consider the above definitions appropriate for prototypical fieldwork, but would agree that bringing the native speaker out of his/her milieu to another location, or working in an office is still considered fieldwork. While Crowley (2007:14–16) also holds that ideal fieldwork is in the community, he also accepts the possibility of fieldwork "at home".

Concerning the issue of prototypical versus less-prototypical fieldwork, Table 2.1 from Hyman (2001:21) provides a useful overview:

The prototype and the least fieldwork-like types described in this chart are sometimes caricatured by terms such as "dirty feet" linguistics (Crowley 2007:11–13) and "armchair" linguistics, respectively (Aikhenvald 2007:4, Crowley 2007: 11–13).

In this book, fieldwork is conceived of as having a slightly wider scope than what Everett, Foley, Aikhenvald, Samarin, Crowley, and Hyman have in mind. We define fieldwork both in terms of what it is and what it is not.

Descriptive linguistic fieldwork is:

- 1. Data collection for the purpose of the documentation and description of a language
- 2. Data collection through interaction with speakers
- 3. Data collection in situations where speakers are expected to use the language naturally

Descriptive linguistic fieldwork is *not*:

- 1. Data collection only through introspection
- 2. Data collection only through examination of written documents or written corpora
- 3. Data collection only through controlled lab experiments

Table 2.1 Prototypical versus less prototypical fieldwork (Reproduced from Table 1.1 in Hyman 2001)

	Fieldwork prototype	Fieldwork countertype	Least fieldwork-like
Elicitee	Other	Self	Introspection
Elicitor/observer	Self	Other	Secondary data
Distance	Far	Near	One's domicile
Setting	Small	Large	City, university
Duration	Long	Short	Brief stopover
Language	Exotic	Well-known	One's own
Subject matter	A language in its natural/ cultural context	Language in general as a formal system	Abstract syntax
Data	Naturalistic	Controlled	Synthetic speech
Motivation	Languages-driven	Theory-driven	

We also argue that archiving, corpus-building and large lexicographic projects are not the concern of descriptive fieldwork. (See Section 9.3 for further comments on lexicography and fieldwork.)

Introspection, i.e. in some sense using oneself as a native-speaking consultant (discussed at length in Chapter 12), is not considered fieldwork in any discussion. However, in linguistic descriptions resulting from fieldwork, insights from fieldwork and from introspection are not always distinguished. Many descriptions by native-speaking linguists have been written using both introspection and speaker interaction; this interaction includes fieldwork with one's relatives, and fieldwork with others within their own communities. Some grammars of unwritten Flemish dialects were written this way by scholars who considered themselves dialectologists first and foremost. They were native speakers of the dialects they described, but nevertheless were superb descriptivist fieldworkers. Examples are Colinet (1896) on the phonetics and morphology of the Aalst dialect, Vanacker (1948) on the syntax of the Aalst dialect, and Pauwels (1958) on the Aarschot dialect. These descriptions, although quite conservative in that they are pre-phonemic, are nevertheless quite accurate and detailed.

There has been some debate on whether description based solely on the introspection of a native speaker can be considered fieldwork. For some, introspection is regarded as not only an efficient, but also the most reliable method for accessing a language's structure (See Chomsky 1957). The goal of the Chomskyan program is to build a model of linguistic competence. Since the structure of a language is present in each individual speaker, investigation into the competency of one fluent speaker should be a valid way to uncover the structure of that language, and a speaker could thus uncover his or her competency through introspection. There are some well-known examples of how a native speaker's introspective comments have been used for language description: see, for example, Sapir's (1933) work on the psychological reality of the phoneme, where a native speaker was encouraged to think about the distribution of sounds in his own language. In this way, fieldworkers often ask the native speaker to be introspective. See also Hale (1972) who has argued for the role of native speaker introspection in fieldwork.

There even exists a tradition within dialectology implying that introspection by speakers of an exotic or unwritten language counts as fieldwork. An example of this view is Basset (1951), who carried out fieldwork with Berber varieties in North Africa, and relied to some extent on introspection by natives.

There are other interactions with native speakers that we consider to be fieldwork. Sociolinguistic and dialectological pursuits – if involving interviews with native speakers – are considered fieldwork, following Lounsbury (1953:413–414) and Mosel (2001), and pace Munro (2003:130–131). Philological work – if carried out in consultation with native speakers – is also considered fieldwork. Several excellent descriptions have been written which combine fieldwork with research on earlier written sources, i.e. philology and epigraphy, as shown in Bowern (2008:4) and in Section 5.2 in this book.

Finally, we agree with Munro (2003:130–131) that the controlled lab experiments used by psycholinguists and language acquisition researchers are not fieldwork, but

at the same time it needs to be acknowledged that controlled experimentation has a place, if a minor one, in fieldwork. Controlled experimentation has been particularly useful in phonetic fieldwork, as we will see in Chapter 10.

2.2 The Goals of Descriptive Linguistic Fieldwork

We consider that the goals of fieldwork depend on what sort of documents the fieldworker wants to produce. Not all fieldworkers state goals of fieldwork in terms of documents produced. For example, for Lounsbury (1953:414), fieldwork is a method "oriented toward a complete structural analysis of a language." For Vaux and Cooper (1999:17) the goal of fieldwork is to "elicit the maximum possible amount of reliable data in the minimum amount of time". Both goals are uniquely ambitious and uncomfortably vague. What indeed, is a "complete structural analysis?" What indeed, is the satisfactory "maximum amount of reliable data in the minimum amount of time"?

These are the sorts of questions we will attempt to answer in this book. In this chapter, we will also clarify what we mean by descriptive linguistic fieldwork. In the following sections we will distinguish three sorts of goals of linguistic fieldwork: primary goals (Section 2.2.1), secondary goals (Section 2.2.2), and ancillary goals (Section 2.2.3). The primary goals constitute what we will call descriptive linguistic fieldwork.

2.2.1 Primary Goals of Fieldwork

A European conception of descriptive linguistics distinguishes two methods of gathering data: (1) collecting a corpus of texts, which is part of what philologists traditionally do in their study of ancient written languages, and (2) interaction with a native speaker (Mosel 1987:10). Since for us fieldwork must involve interaction with a native speaker, only the second counts as real fieldwork.

In the American Boas–Sapir–Bloomfield tradition (Section 3.1), text collection and interaction with native speakers were not distinguished, since work was carried out on unwritten languages, and therefore all descriptive linguistics, including text gathering, originated in fieldwork, i.e. was based on interaction with native speakers. As a result, the European conception of descriptive linguistics as a cover term for two methods of data gathering can be discarded as too exclusive.

One can now distinguish (1) corpus collection of written documents, (2) corpus collection based on interaction with native speakers, (3) other activities based on interaction with native speakers. Activity (1) is part of the field of corpus linguistics, as well as of the field of philology. Activities (2) and (3) have given rise to the new field called "documentary linguistics", which can briefly be defined as the collection or gathering of linguistic data through a variety of methods and techniques, with a

focus on reliability, representativity, and archivability. The field of "descriptive linguistics" is now conceived of as the analysis of language data gathered through activities (1) though (3). For some scholars, the goal of fieldwork should be documentation, whereas for other scholars the goal of fieldwork should not stop there, but should include descriptive linguistics as well. We will first discuss documentary linguistics as a goal, then descriptive linguistics as a goal, and then we will discuss the relationship between these two goals.

2.2.1.1 Documentary Linguistics

Documentation as a goal of fieldwork is, of course nothing new, since that was, after all, one of the goals of the Boas–Sapir–Bloomfield tradition (Woodbury 2003; Himmelmann 2006:14). At the time of this writing, documentary work is frequently being discussed because of the current attention to language endangerment issues (see Section 2.2.2.2).

Himmelmann (1998) is the foundational article arguing for a separation of documentary and descriptive fieldwork, within a broader field of descriptive linguistics (as originally defined in Section 2.2.1). We will argue in this chapter, and throughout this book, that a separation between documentary and descriptive fieldwork is not tenable, but first we will present in some detail the arguments for such a separation.

While Himmelmann (1998:163) recognizes that there is necessarily overlap in the area of the transcription of data in documentation and description, he argues that collection (i.e., documentary fieldwork) and analysis (i.e., descriptive fieldwork) are different activities in terms of result, procedure, and methodology. From a practical point of view, if collection and analysis are not distinguished, researchers will not pay sufficient attention to the activity of collecting. Secondly, when the documentary data are made available, they should be useful not only to people writing a descriptive grammar, but also to scholars in other disciplines such as anthropology, oral history, sociolinguistics, and discourse analysis. A grammatical description, on the other hand, is primarily useful only to grammarians and comparativists. Finally, description is different from documentation because there is no automatic procedure for deriving description from data, since depending on the underlying theoretical framework, different descriptions can and will result.

Lehmann (1999:1–2), holds a similar view of the distinction, and adds that since languages are dying faster than linguists can describe them, the only really urgent task is documentation. Lehmann distinguishes primary documentation, (i.e. a text corpus), from secondary documentation, (i.e. the description), and emphasizes that both must be accessible digitally. The documentation could be an "edited version of the field notes", and more ambitiously, what he calls a "radically expanded text collection", i.e. an annotated text collection, which should be a "record of the linguistic practices and traditions of a speech community" (Himmelmann 1998:165–166).

Further refinement of the definition of documentary linguistics is in Woodbury (2003). Woodbury's conception of documentary linguistics goes beyond a radically expanded text collection to include the full gamut of data obtained during fieldwork, from controlled or informal elicitations, commentary and grammaticality judgments by native speakers, to naturally-occurring speech recorded for its own sake. Woodbury (2007) further makes a convincing argument of the need for "thick translation", i.e. multiple levels and types of translations of one text.

Another account of what documentary linguistics is and what it should do is in Himmelmann (2006). This chapter recapitulates Himmelmann's (1998) views in a useful format, clarifies some terminology, and adds more historical context to the topic. It is, therefore, essential reading for the descriptive linguistic fieldworker. We do take exception to one idea in this important paper, which we quote here.

It is a well-known fact that it is possible to base elaborate descriptive analyses exclusively on a corpus of texts (either texts written by native speakers or transcripts of communicative events) – and most good descriptive grammars are based to a large degree on a corpus of mostly narrative texts).

(Himmelmann 2006:22)

We do not find this to be a well-known fact. While it is possible to produce a decent grammatical sketch of a language in this way, we argue in Chapter 12 and 13 that the dialogue between elicitation and texts is crucial to the writing of a good descriptive grammar.

On the whole, the above are convincing arguments for the existence of a separate field of documentary fieldwork. A question one can raise is whether field linguists can be collectors of corpora first and foremost. Traditionally, field linguists have not thought of themselves as collectors of corpora, even though they gather fieldnotes, texts and lexical material in a body that could be called a corpus. Most field linguists do not collect the sort of corpus that would be considered adequate for computational study of the sort done by corpus linguistics. Indeed, corpus linguistics, i.e. the analysis of previously collected corpora, is typically carried out with large world languages, such as English, French, or Hindi, with many speakers and extensive dialectal and stylistic variation, considerable written and recorded literature, and adequate funding and time devoted to their study. In the best pedagogical literature on these languages, there is a heavy reliance on data gathered from corpora. Corpus linguistics does not typically result from the activities of fieldworkers, since corpora typically consist of written data easily studied by computational methods, although they are increasingly transcripts from spoken data. Useful references on corpora are Johnson (2004), Meijs (1987), Oostdijk (1988), and Sampson (2002). Recent introductions to corpus linguistics include Kennedy (1998), McEnery and Wilson (1996), Teubert and Cermáková (2007), and Wynne (2005).

Documentary fieldwork is quite different, since interaction with speakers is assumed, there is always a certain urgency in gathering the data, and there is less concern over whether the data are statistically representative, properly sampled, and easily studied computationally. Documentary linguistics is a sort of emergency

butterfly collecting, whereas corpus collecting would be a comprehensive butterfly collecting.¹

There is no doubt that field linguists should increase efforts toward more representative corpus collecting when carrying out documentary fieldwork. Ultimately, when extensive corpora of all languages of the world have been gathered, the difference between corpus collecting adequate for corpus linguistics and documentary linguistics would become less important, but that goal is pie in the sky. We will probably never reach it.

Corpus collecting and documentary fieldwork are also different from the point of view of archiving. Archiving involves the procedures ensuring the preservation and continued availability of linguistic data. When collecting materials for a corpus, sampling techniques are important, and of course only what is sampled can be archived. One example of an archived linguistic corpus is the *Archivo de Lenguas Indígenas de México*, e.g. MacKay and Trechsel (2005) for Misantla Totonac.² When collecting materials in documentary fieldwork, the linguist is less selective, especially in the case of endangered languages where anything that can be collected is preserved archivally.³ Examples of archives which contain the results of documentary fieldwork are the Archive of Indigenous Languages of Latin America (AILLA, University of Texas at Austin), the archive of the Alaska Native Language Center, (ANLC, University of Alaska, Fairbanks), the DOBES endangered languages archive (Max Planck Institute, Nijmegen, The Netherlands), and the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC, Australia).⁴

We have pointed out that archiving implies preservation techniques. Lehmann (1999:10) points out that in other sciences such as archeology (artifacts) or zoology (preserved specimens), highly specialized techniques have been developed to preserve artifacts or specimens, and he laments the fact that such techniques do not yet exist in linguistics. He states: "We need to develop a culture of the linguistic datum and its processing." However, this point raises the question of whether a language can usefully be preserved like an archeological specimen, and the related ethical question of whether this is what native speakers or native speaker communities really want for their languages. Ethical questions relating to language description, documentation, archiving, and preservation are discussed in Chapter 6.

¹ As pointed out in Everett (2004), under the influence of Chomsky, field linguistics has disparagingly been compared to aimless "butterfly collecting". We urge field linguists to reclaim "butterfly collecting" as a positive term, and a particularly useful one if one wants to find out all about butterflies

²The first 11 volumes of this archive, dealing with one Mexican indigenous language each, are now available on-line at http://www.colmex.mx/alim/.

³As the term "documentary" becomes more widespread in linguistics, so is the term "archival", used in new collocations such as: "archival phonetics" (Tuttle 2003), meaning using older sound recordings to carry out instrumental phonetics with them, and even "archival speakers" to designate the oldest, most conservative speakers of the Ainu language (DeChicchis 1995).

⁴All of these, and other archives less relevant to fieldwork, participate in the Open Language Archives Community (OLAC), (www.language-archives.org).

2.2.1.2 Descriptive Linguistics

According to the perceptive introduction to the edited volume on grammar writing by Evans and Dench (2006:3):

The job of descriptive linguistics is to describe individual languages as perceptively and rigorously as possible, with maximal accountability to a naturalistic corpus of data ideally collected within a broad program of language documentation [...] to ensure that the full spectrum of language structures are represented.

We think that this definition also covers what descriptive fieldworkers should be doing, with the reservation, perhaps, that they should be doing this even if there is no "broad program of language documentation" in place yet. So, the goals of descriptive fieldwork are the writing of a comprehensive grammar, a collection of texts, and a dictionary, the so-called Boasian trilogy (Evans and Dench 2006:10–16). This trilogy was indeed an explicit goal of the Boas–Sapir–Bloomfield tradition, and is further discussed in Sections 3.1 and 9.1.

Lehmann's (1999:10) definition of description as a fieldwork goal is:

Description of a language is an activity (and derivatively, its result), that formulates, in the most general way possible, the patterns underlying the linguistic data. Its purpose is to make the user of the description understand the way the language works.

According to Lehmann (1999:4–5), descriptions should aim at three things: (1) essential completeness, (2) intelligibility, and (3) adequacy.

"Essential completeness" does not mean that every detail is covered, but rather that all the main features of phonology, morphology, and syntax are covered, and that there is a dictionary and texts as well. Again, this was a goal explicitly stated by the Boas–Sapir–Bloomfield tradition. It fell by the wayside as post-Bloomfieldian structuralists tended to restrict themselves to phonology and morphology, and as their Chomskyan successors, in reaction, tended to restrict themselves to syntax.

"Intelligibility" implies that the description must be comprehensible to anyone with training in linguistics. Lehmann (1999:4–5) points out that tagmemic or transformational generative grammars written in the sixties are not good models, because they are no longer intelligible. In fact, the situation varies; the transformational account of Hidatsa (Siouan) syntax by Matthews (1965) is very hard to follow, but Lindenfeld's (1973) transformational syntax of Yaqui (Uto-Aztecan, northern Mexico) is still easy to read. The same argument can be made for some tagmemic accounts. Very readable tagmemic accounts, because they are commonsensical in presentation, are Bunn's (1974) grammar of Golin (Papua New Guinea), and De Wolf's (1997) grammar of Sonoran Mayo (Uto-Aztecan, northern Mexico).

Another matter of intelligibility is the avoidance of idiosyncratic terminology (Lehmann 1999:5, Mosel 2006:51). Idiosyncratic terminology became quite unwieldy in formal linguistics, particularly in later transformational-generative, minimalist, and optimality frameworks. In descriptivist milieus the situation is no better. For example, in the relatively small field of native North American language description, there are specialized terminologies for Algonquianists, Athabascanists, Eskimoanists, Iroquoianists, Muskogeanists, Salishists, Siouanists, and Uto-Aztecanists.

A well-established typological terminology is a strong desideratum, as further discussed in Section 10.5. A step towards terminology normalization has been taken by the E-MELD project's General Ontology for Linguistic Description (GOLD), available on-line at http://emeld.org/ontology-tree.cfm. It should still be a matter of discussion whether this terminology should be developed a priori, or a posteriori, i.e. departing from the specific usages of descriptivists.

"Adequacy" of course would include what Chomsky (1964) has called observational adequacy and descriptive adequacy, but for Lehmann (1999:5) it also means that the grammar should be written in such a general way as to be typologically comparable (Zaefferer 2006), but at the same time it should be specific enough "so that the uniqueness of the language is brought out".

2.2.1.3 On the Relationship Between Documentary and Descriptive Goals of Fieldwork

Informally, the relationship between documentary and descriptive goals (in terms of final products) can be set up as in Table 2.2.

Regarding the theoretical relationship between documentary and descriptive goals of fieldwork, there are three different points of view.

- 1. Himmelmann (1998, 2006) and Lehmann (1999, 2004) consider documentation and description to be theoretically independent, and consider that documentation should have priority as the goal of the fieldwork activity.
- 2. Woodbury (2003) also considers documentation and description to be theoretically independent, but considers documentation and description to have equal priority as the goal of the fieldwork activity.
- 3. Dixon (2007), republished in a slightly revised form in Dixon (2010:309–330), and Michael Krauss (p.c.) consider documentation and description to be theoretically dependent, and that description should have priority as the goal of the fieldwork activity. Dixon and Krauss disagree on the priorities within description, however. Dixon considers a reference grammar to be the priority, whereas Krauss considers a dictionary and text collections to be the priority.

Each of these points of view corresponds with different activities, and corresponds with different attitudes toward computerized data. Each of them have considerable merit, and the advantages and disadvantages of each will be briefly reviewed here.

 Table 2.2
 The relationship between documentary and descriptive goals

Type of data	Documentary	Descriptive
Word data	Word recordings	Dictionaries
Sentence data	Sentence recordings	Analyzed sentence examples
Discourse data	Text recordings	Analyzed texts
Integration of the above		Reference grammars

Himmelmann (1998) was the first proponent of a theoretical divide between the activities of documentation versus description, even though he admits that the dividing line is not always sharp in practice. Lehmann builds on this framework by further emphasizing the priority of documentation, as is clear from quotes such as:

One should document a language in such a way that future linguists can derive a description from it.

(Lehmann 1999:10)

(...) let us call a sufficient documentation one on whose basis one can elaborate a description of the language. Now it is possible to come up with a sufficient documentation of a language within a few years. If the language then becomes extinct, it will still be possible to elaborate its description at leisure.

(Lehmann 2004:63)

For Lehmann (2004:62, 63) the documentation contains the interface for the grammar, and the grammatical description is on a meta-level with respect to the documentation. In other words, fieldwork is primarily documentation, and description is a step beyond fieldwork. However, as reflected in our comments on Himmelmann's view (2006:22) quoted in Section 2.2.1.1, we do not believe that a comprehensive description can result from a study of documentary material without native speaker input.

The advantage of Lehmann's approach is that fieldworkers can concentrate on documentation, and can save the description for later. The disadvantage of this approach is that it is too optimistic in that it makes it seem like grammars and dictionaries can be computationally generated out of an annotated corpus. The processes would not be simple, but technological advances might make it possible to some extent. We have no way at present, however, to generate a comprehensive reference grammar out of a corpus. Good (2006a) has been studying reference grammars to determine to what extent they are similar to electronically generated (meta) databases. It is still too soon to know if investigations such as these will lead to computational grammar generation. In a paper about the ecology of documentary and descriptive linguistics (also worth reading for its candid assessment of relationships between computer programmers and descriptive linguists), Good (2006b) sees the ecology as a relationship between three individuals, the Archivist, the Collector and the User. If we assume that Good considers the Collector to be the Documentor, and the User to be the Describer or the heritage speaker, among others, then we have another view of the separation of description and documentation.

Woodbury (2003) shares Himmelmann and Lehmann's concern for the documentation of endangered languages, and a concern that documentation is under-theorized. Unlike Himmelmann and Lehmann, Woodbury does not view grammars as an endpoint of documentation, but rather as "part of the apparatus – the descriptive and explanatory material – that annotates the documentary corpus." Thus there is a dialectical relationship between the apparatus (or grammar) and the documentary corpus itself.

An influential voice for a distinction between documentation and description which has been instrumental in clarifying and expanding on Himmelman's and

Woodbury's points of view has been that of Peter K. Austin from the School of Oriental and African Studies, University of London. Austin is the editor of an impressive set of working papers entitled *Language Documentation and Description* (Austin 2003, 2004, 2005, 2007, 2008, 2009, 2010a). Austin has rightfully emphasized the complementarity of documentation and description in a series of survey articles (Austin and Grenoble 2007, Austin 2010b).

Against these points of view segregating description from documentary work, Dixon (2007) argues that it is neither possible nor advisable to consider documentary and descriptive fieldwork as distinct activities. Documenting is simply not enough, and the final product of fieldwork must be a reference grammar, a difficult and intellectually challenging task which can only be completed through the inductive generalizations of the fieldworker. Further support of this point of view is that when documentation and description are carried out in concert by the same linguist, the linguist gains a good overview of how the language works as a whole and both documentation and description benefit from this (Aikhenvald 2007 and Comrie 1988:5).

It is certainly significant that the two most recent accounts of grammar-writing, i.e. Ameka et al. (2006), and Payne and Weber (2007), largely contain contributions by fieldworkers, and that the recent manual of documentation, i.e., Gippert et al. (2006), also contains contributions by fieldworkers, and that the names of contributors to the descriptive and the documentation volumes broadly overlap. It is also significant that the collections of working papers mentioned earlier (Austin 2003, 2004, 2005, 2007, 2008, 2009, 2010a) also largely contain contributions by fieldworkers.

While we agree that documentation and description are theoretically distinct and complementary endeavors, our preference is with the approach that does not try to make too clear a segregation between the business of documentary linguistics and descriptive linguists. Keeping in mind the pressures of working against time to document a truly endangered language, we advocate fieldwork which leads to a comprehensive reference grammar and corpus of texts that can be used by linguists and speakers for a variety of purposes.

2.2.2 Secondary Goals of Descriptive Linguistic Fieldwork

Descriptive linguistic fieldwork also has secondary goals, which are instructional. One goal to impart native language Christian instruction (Section 2.2.2.1); another is to teach endangered languages to the next generation (Section 2.2.2.2). Neither of these goals follow from either documentary or descriptive goals. Both are to some extent controversial and involve a different set of researchers and team structure than do language documentation and description. Furthermore, we make no claim that both endeavors are equally valid from a humanist, moral, or ethical point of view; we just emphasize the fact that historically they have both been extremely important secondary goals.

2.2.2.1 Religious Instructional Goals

The goal of religious organizations such as the Summer Institute of Linguistics (SIL, nowadays called SIL International) and its missionary arm, the Wycliffe Bible Translators (WBT), is ultimately Bible translation. However, these organizations also encourage literacy among indigenous people who do not have a written language (Pittman 1948; Gudschinsky 1957). The reason for this is obviously that if the Bible is translated into an indigenous language, the indigenous people themselves have to be able to read it. Furthermore, literacy is conceived of as a valuable educational goal for the integration of indigenous peoples into the larger society. The relationship between literacy, literacy development, and fieldwork is somewhat controversial, since some indigenous communities might want to keep their language oral and are therefore opposed to literacy.

The issue of the need for Bible translation is much more controversial, of course, as discussed further in Section 3.2. In any event, SIL fieldwork has been praised by prominent non-SIL fieldworkers such as Comrie (1988) and Dixon and Aikhenvald (1999:2–3).

Table 2.3 below is a partial expansion of Table 2.1, showing the relationship between documentary, descriptive, and religious instructional goals. We hasten to point out that Table 2.3 is provided here for philological and historical purposes, since very few missionaries compile catechisms these days, and no one compiles confessionals⁵ anymore.

The design of catechisms and confessionals was an important fieldwork activity carried out by missionaries in Spanish America. Examples of "confesionarios" are García (1760) for Coahuilteco of South Texas, discussed in Troike (1996:644–45), Beeler (1967) for Ventureño Chumash of California; and Ruz and Birrichaga (1997:289–299) for Zoque of Chiapas, Mexico. Examples of question and answer catechisms are Bausani (1974) for Chono of Chile; Beeler (1971:40–50) for a Yokuts variety of California; and Machoni (1877:215–221) for Lule of northern Argentina.⁶

Table 2.3 A comparison of documentary, descriptive and instructional rengious goals				
Type	Documentary	Descriptive	Instructional religious	
Word data	Word recordings	Dictionaries	Dictionaries (including religious terminology)	
Sentence data	Sentence recordings	Analysed sentence examples	Confessionals, and question-and-answer catechisms	
Discourse data	Text recordings	Analysed texts	Doctrinal texts, Bibles	
Integration of the above	-	_	Religious instructional texts in the target language	

Table 2.3 A comparison of documentary, descriptive and instructional religious goals

⁵Confessionals (Spanish "confesionarios") were bilingual phrasebook-like lists of set questions and answers, used by Spanish speaking Catholic missionaries in hearing confession from native converts.

⁶Except for Zoque, the languages mentioned in this paragraph are extinct.

2.2.2.2 Instructional Goals Relating to the Preservation of Endangered Languages

Since the seminal 1992 articles in *Language* (Craig 1992; England 1992; Hale 1992a, b; Jeanne 1992; Krauss 1992; Watahomigie and Yamamoto 1992); the literature on language endangerment has increased far more rapidly than has that on linguistic fieldwork. Edited book-length collections on the topic include Robins and Uhlenbeck (1991), Brenzinger (1998), Grenoble and Whaley (1998), Kasten (1998), Matsumura (1998), Ostler (1998), Fishman (2001), Sakiyama and Endo (2001), Bradley and Bradley (2002), Janse and Tol (2003), Sakiyama et al. (2004), Sakiyama (2004), De Dominicis (2006), Austin and Simpson (2007), Brenzinger (2007), Miyaoka et al. (2007), Moseley (2007), Harrison et al. (2008), and Austin and Sallabank (2010). Evans (2010) is a book for undergraduates, and is basically about endangered languages, but it is also particularly good at sharing the excitement of discoveries in the areas of language, culture, and thought; language and biology; language and the land, language and verbal art; and historical linguistics. Popular book-length accounts include Crystal (2000), Abley (2003), Dalby (2003), and Seay (2003). Other accounts, such as Nettle (1998), Nettle and Romaine (2000), and Harrison (2007) are somewhat elegiac about the ongoing language loss. Following this boom in literature on language endangerment, the literature on documentation aimed at preservation or stabilization (Cantoni 1996; Burnaby and Reyhner 2002), or teaching (Reyhner 1997) has also increased rapidly.

"Language preservation" or "language stabilization" include a variety of instructional activities aiming to prevent the break in the intergenerational transmission of a language, or to create a new generation of speakers in case the break in the intergenerational transmission has already occurred. A useful overview of the terminological labels related to language preservation is Amery and Gale (2008:342). They prefer "language revival" as a cover term, and then distinguish three subtypes:

- 1. "Language revitalization" the situation where there are maybe hundreds to a few older fluent speakers. This is a situation where the linguistic fieldworker can help with taking stock of the existing documentation, and can add to it.
- 2. "Language renewal" the situation where there are no remaining speakers, but people remember some words and phrases. This is a situation where the linguistic fieldworker can help people jog their memories, for example by suggesting forms on the basis of what they know of related languages.
- 3. "Language reclamation" the situation where nothing of the language is remembered, and the materials for relearning the language have to be based on historical documents. This is a situation where fieldworkers can be of no direct help. If the

⁷We focus here on the instructional activities included in "language preservation" or "language stabilization", because that is where the fieldworker can be most helpful. The fieldworker should always remain aware of the fact that "language preservation" or "language stabilization" also include activities such as language planning and language policy, and therefore that any "language preservation" or "language stabilization" effort has political causes and consequences.

fieldworker is good at philologically interpreting other people's fieldnotes (see Section 5.2), s/he can help indirectly in this way. However, for a descriptive fieldworker, work in situation (1) should always remain the highest priority, and work in situation (3) the lowest.

Practical advice related to language revival fieldwork is contained in the survey by Hinton and Hale (2001), in Hinton et al.'s (2002) manual, in Grenoble and Whaley's (2006) survey, and in Austin and Sallabank (2010). These works deal with documenting and describing a language with the ultimate goal of learning or relearning it. This literature also contains discussion of technical and orthographic issues related to language instruction. The best overview of the problems arising when doing fieldwork with speakers of endangered languages with the goal of writing instructional materials is Grinevald (2007). A good overview of multimedia teaching techniques for endangered languages, as derivable from fieldwork-based documentation, is in Nathan (2006), and an overview of orthography development is in Seifart (2006).

Table 2.4, also derived from Table 2.2, compares documentary, descriptive, and language instructional goals.

While not nearly as controversial as the religious goals, there have also been skeptical voices on the validity of these as goals for linguistic fieldwork (Ladefoged 1992; Newman 1998; Mufwene 1998). It is probably no coincidence that these voices are from Africanists. They were the first, as discussed in Section 3.6, to reflect critically on the goals of linguistic fieldwork, and have been among the first to voice skepticism about the current optimism in language endangerment related fieldwork. There is also a question of priorities: We are in agreement with Comrie (2007), who argues that documentary work on endangered languages should remain a higher priority than the revitalization of extinct or non-traditional varieties.

2.2.3 Ancillary Goals of Descriptive Fieldwork

In this section we discuss other types of linguistic fieldwork, which are not primarily descriptive. We consider descriptive fieldwork, in addition to its important goals which are valid in their own right, can also be ancillary to those other types of

The relationship between documentary, descriptive, and language instructionar goals				
Type	Documentary	Descriptive	Language instructional	
Word data	Word recordings	Dictionaries	Learner's dictionaries	
Sentence data	Sentence recordings	Analyzed sentence examples	Phrasebooks	
Discourse data	Text recordings	Analyzed texts	Primers or readers	
Integration of the above	-	Reference grammars	Pedagogical grammars, textbooks, or multimedia learning methods	

 Table 2.4
 The relationship between documentary, descriptive, and language instructional goals

linguistic fieldwork. The use of the term "ancillary" is not intended to imply that the sorts of linguistic fieldwork described here are more or less important than descriptive fieldwork. It is just that some linguistic fieldwork is not descriptive, and that while the goals of such fieldwork are different, descriptive fieldwork practices will always be useful to help reach these goals.

2.2.3.1 Non-comparative Theoretical Goals

The goals of non-descriptive fieldwork can be to substantiate theoretical claims⁸ regarding such concepts as Universal Grammar (Abbi 2001; Evans and Levinson 2009), the biologically hardwired language acquisition device, or the independence or relationship between form and function (Evans and Dench 2006:7–10). As Mosel (1987:10, 2006:45) points out, it can take about ten years to describe a neverbefore-studied language. Linguistic theories often change within that period of time. Of course, descriptive fieldwork without an underlying theory is impossible, but in descriptive fieldwork the theoretical approach itself should be descriptive and data-driven. Further comments about what a data-driven descriptive theoretical approach should look like are in Sections 11.4.2 and 12.1.

While there is no strong motivation for using non-descriptive theory-driven methodologies for fieldwork, such methods can be very helpful in developing specific fieldwork questions, as shown by Comrie (1988:5–6) and Rice (2006).

2.2.3.2 Comparative Theoretical Goals

There are three ways that languages can be compared: historically (including genetically), areally, and typologically.

The historical goals of fieldwork involve the collection of data so as to compare languages to determine genetic or other historical relationships. Grimes (1995:4–16), Vaux and Cooper (1999:165–180), and Vaux et al. (2007:351–381) are good sources of information on this. For most historical linguists, historically oriented fieldwork will first be the collection of basic vocabulary for the application of the comparative method.

Areal goals of fieldwork involve the collection of data useful for tracing mutual influences between languages, i. e. language contact. Four exemplary works on language contact based on extensive fieldwork are Haugen (1969) on Norwegian–American English contact; Hill and Hill (1986) on Nahuatl (Mexicano)-Spanish contact; Bakker (1997) on Mitchif, a mixed Cree–French language of Canada; and Aikhenvald (2002) on language contact in the Vaupes area of Amazonia. Older literature and references are in Weinreich (1974).

⁸What we call "theory" in this section is generally called "formal linguistic theory". The problem with the term "formal linguistic theory" is that it is understood to apply primarily to the Chomskyan paradigm, glossing over the fact that some functionalist theories are just as non-descriptive as Chomskyan formal linguistics.

Typological goals of fieldwork involve collecting data useful for identifying language universals (Abbi 2001, Evans and Dench 2006:5) or language particulars, also called *rara* (Ladefoged and Everett 1996; Everett 2004, 2005). The literature on typology is vast; an extended discussion of sources and surveys for language typology is provided in Chapter 11.9

Baker (2005) distinguishes three views of typology in linguistics. In the generative or Chomskyan approach, only a few languages are compared, and therefore little fieldwork is required. In conventional typological studies, hundreds of languages are compared, albeit somewhat superficially, and the amount of fieldwork conducted per language varies considerably. An exemplary and prominent example of this type is Haspelmath et al. (2005). Baker advocates a "middle" way of doing typology which involves comparing ten or so languages, and carrying out a very substantial amount of fieldwork on each of them. It should be noted that this middle way is the way that linguistic typology was carried out by fieldworkers such as Boas, Sapir and Bloomfield (Section 3.1) The goal of fieldworkers should be, in our opinion, to carry out fieldwork that can feed into both Baker's "middle" way and the conventional way of carrying out typological studies.

2.2.3.3 Dialectological or Sociolinguistic Goals

There are two basic schools in the study of intralinguistic variation: the dialectological school, focusing on regional variation (Pickford 1956; Chambers and Trudgill 1980) and the sociolinguistic school, focusing on social variation (Labov 1972, 1984). Should dialectological or sociolinguistic research be regarded as fieldwork? Lounsbury (1953:413–14) says yes: dialectological research is linguistic fieldwork. Munro (2003:130) says no: sociolinguistic research is not fieldwork. As we see it, both of these schools, regardless of ideological differences, use descriptive fieldwork techniques, and have written more extensively about them than descriptive fieldworkers. A survey of dialectological fieldwork is in Francis (1983). A good survey of sociolinguistic techniques is Milroy (1987). See also Section 12.2 for further references to sociolinguistic techniques.

Dialectological or sociolinguistic fieldwork goals are emphasized in some recent accounts of fieldwork on Romance languages; for example, López Morales (1994) for Spanish, focusing on dialectology and sociolinguistics; and Blanchet (2000) for French, taking an ethno-sociolinguistic approach.¹¹

⁹Typological fieldwork is also important from a terminological point of view, since the terminology used in documentary and descriptive fieldwork is based on typological findings, whereas the terminology for historical and areal fieldwork can be more easily constrained to those fields.

¹⁰Two recent discussions of fieldwork by Vaux and Cooper (1999:149–164) and by Vaux et al. (2007:315–349), treat issues of dialectological and sociolinguistic fieldwork together.

¹¹Blanchet (2000) is interesting in that it covers both method and theory. However, the methodological part of Blanchet (2000) is also quite theoretical, and gives little practical advice.

Related to dialectological and sociolinguist goals is the issue of determining mutual intelligibility among related varieties, or the measurement of dialect distance. SIL linguists have recently been preoccupied with mutual intelligibility testing for practical reasons. Indeed, it is connected with the question of how many language varieties the Bible needs to be translated into. The fundamental work is Casad (1974), and the most recent account on this topic is Grimes (1995). Older discussions include Voegelin and Harris (1951), Hickerson et al. 1952, Smalley (1957), and Wolff (1959).

2.2.3.4 Goals Regarding the Study of Language, Culture, and Cognition

Some fieldworkers, mostly but not uniquely linguistic anthropologists, will be interested in the issue of the relationship between culture and language, i.e. does language condition culture, or vice-versa, or both. Similarly, they will ask whether language conditions cognition, or vice-versa, or both. These relationships are best exemplified in Lucy (1985, 1992a, b), Gumperz and Levinson (1996), Enfield (2002), and Everett (2005).

2.3 Aspirations and Limitations of Linguistic Fieldworkers

To conclude our chapter on the goals of fieldwork, we consider the personal aspirations of the fieldworker. First, who does the fieldworker want to be or become by conducting fieldwork? The field linguist wants to be more than an amiable and flashy character with a fancy hat like Indiana Jones (Bowern 2008:13–14). Nor does s/he want to be a nerdy character fidgeting on an uncomfortable bench with a fancy laptop which acts as a metaphorical wall between him/her and the puzzled speaker. The fieldworker might like working alone, but may also want to avoid the negative stereotype of the "Lone Ranger linguist", labeled as such by Dwyer (2006:54) as a caricature of the go-it-alone colonial fieldworker. 12 Perhaps the field linguist has humanitarian aspirations and would like to assume a personality similar to those of members of organizations like Doctors without Borders. Aren't field linguists ultimately "Linguists Without Borders"? They come in, sometimes live with the people for a while, and do good work, and maybe even help to save a language from extinction. The educational and humanitarian goals of training native speakers for language preservation, or of raising the profile of a language and its speakers are certainly fulfilling. All these characterizations of the field linguist exist and typically the individual finds himself/herself negotiating between several personae. In any case, linguistic fieldwork is intellectually exciting, as described in Abbi (2001), Bowern (2008), Crowley (2007), Aikhenvald (2007:4, 9), and the articles of Newman

¹²Australianists call this caricature the "Crocodile Dundee Fieldwork Model", as in the following blog by Jane Simpson: http://blogs.usyd.edu.au/elac/2007/04/theres_fieldwork_and_theres_fi.html

and Ratliff (2001), and personally fulfilling. Fieldworkers get to meet new people, and regardless of whether or not they visit exotic places, they create something new, or reveal something new to the world (Abbi 2001; Dixon 2007).

We would like to finish this chapter by adding three roles to characterize a descriptive field linguist, limitations and all. We will call these comparisons: the field linguist as astronomer, the field linguist as textual critic, and the field linguist as piano tuner.

Field linguists are like astronomers. Astronomy is a science where observations are paramount. Astronomers cannot travel to the stars and planets of outer space to see what they are really like, and they have to rely on whatever they can observe, at a distance of many light-years. The same thing is true, *mutatis mutandis*, with linguistic fieldwork. Field linguists cannot get into a speaker's brain and see which neuron does what when a particular grammatical construction is used (assuming, with Chomsky, that there is a language organ in there somewhere). All they can do is observe what comes out of the speaker's mouth. If an astronomer observes and describes a black hole or quasar or whatever in a part of the universe, regardless of whether it fits into someone's theory or not, s/he can publish that observation in a scientific journal. Like astronomers, field linguists have to observe and describe linguistic facts regardless of whether they fit into someone's theory or not, and hopefully they can publish their findings as well.

Field linguists are also like textual critics. As with the methodology of textual criticism, it is not possible to describe fieldwork methodologies in a totally explicit way. Indeed, fieldwork is never mechanical; intuition is at work, and it is as much an art as a science to do good fieldwork. Metzger (1992:219), who was for years the dean of New Testament Greek textual criticism in the United States, quotes an essay by the textual critic A. E. Housman as follows:

A textual critic engaged upon his business is not at all like Newton investigating the motions of the planets: he is much more like a dog hunting for fleas. If a dog hunted for fleas on mathematical principles, basing his researches on statistics of area and population, he would never catch a flea except by accident. They require to be treated as individuals; and every problem which presents itself to the textual critic must be regarded as possibly unique.

Certainly, the fieldworker hopes that most problems s/he encounters will not be unique, but s/he must be prepared for that possibility.

Finally, and maybe most surprisingly, field linguists are also like piano tuners. If you have a piano, you must have it tuned occasionally. You will notice that piano tuners come in two versions: most bring equipment to calibrate the pitch of each key, but some bring no equipment: they have perfect pitch, and tune the piano entirely by ear. We tend to put more trust in the piano tuner who brings equipment, but on the other hand, we would not like a piano tuner who has no ear for pitch at all. In the same way, we expect the fieldworker to bring some equipment to the field, but at the same time we should look dimly upon a fieldworker who has to rely entirely on pitch tracking equipment to figure out what tones the language has and lexicographic software to determine the shape of a dictionary.

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