linguists are happy as long as "their" language, e.g. English and Japanese, survives and that they have no concern for disappearing languages. This is despite the fact that linguistic diversity is essential for the survival of linguistics itself (see 10.2.4.6-[2]).

The other is to develop an incentive system for younger linguists interested in documentation of endangered languages, e.g. in terms of hiring decisions, promotion and tenure decisions (Everett 2001: 183; Grinevald 1998: 154).

12.4. Summary of Chapter 12

Until recently (and still now) linguists have tended to carry out research for their own interests or benefits only. Very often, they have not to paid much (or any) attention to their role they are expected to play, and they have not been concerned with ethical issues involved in research. However, the situation has begun to change. In countries such as Australia, communities have begun to control research conducted there, and to demand that, among others, (i) they benefit from the research results, and (ii) their intellectual property rights be respected. Also, academic institutions and associations have begun to present ethical codes for research – in order to avoid "exploitation by academic thieves". Researchers can no longer afford to ignore the community's wishes. They are required to fulfil the requirements set up by the relevant community, academic institution or the like.

The most urgent tasks of linguists in the current linguistic crisis are (i) to document endangered languages, and (ii) to benefit the communities by means of research results, e.g. for language revitalization. Unfortunately, however, most linguists do not seem to be concerned with the crisis of language endangerment, and these tasks are in need of urgent attention.

13. Method of documentation and training of fieldworkers

13.1. Introductory notes

Once a language is lost, there will be no opportunity left to record it. Therefore, it is vital to make an adequate documentation of the language while there is an opportunity. This chapter first explores methods for documentation of endangered languages (13.2). The number of endangered languages is enormous, and it is important to increase the number of linguists who can make an adequate documentation of them. Methods for training of fieldworkers are considered in 13.3.

13.2. Method of documentation

13.2.1. Introduction

In the following discussion, we need to distinguish between (i) linguistic fieldwork in general, and (ii) fieldwork on endangered languages specifically. There is no spectacular method of documenting endangered as against healthy ones. Most of what is stated below applies to both types of fieldwork. Nonetheless, endangered languages differ from healthy ones in a number of respects. Thus, their speakers are few, and also advanced in their age, and so on. These differences necessitate special care when working on endangered languages.

13.2.2. Quality of documentation

Documentation of endangered languages (or any language, for that matter) should aim at the following level of quality (Craig 1997: 265; Lehmann 1999: 5–6):

(a) accuracy: the documentation must be as reliable as possible, and;

(b) comprehensiveness: the documentation must be as complete as possible.

That is, it "should provide a true presentation of the language" (Mithun 2001: 52). In view of these aims, particularly (b), it is vital to take a holistic approach, rather than a narrow approach. A holistic approach aims to document a language as a whole, including its socio-cultural background (Tsunoda 1998b,

2000a, 2001a, 2001b, 2001f). Note that this approach includes the socio-cultural background of the language (e.g. Dimmendaal 2001: 56, 69). There are at least two reasons to stress the importance of a holistic approach.

[1] Reason 1. A language is, like a human body, a complex but integrated system. Therefore, "each part relates to the whole and can only be properly understood in the context of the whole" (Dixon 1997: 133), and "it is very difficult to isolate one component of a language completely from another, since the pieces interact in intricate ways" (Rice 2001: 248). In the words of Rachel Cummins, a Warrungu person of Australia, "language comprises a whole". Adequate understanding of a language requires investigation of its entirety, as an integrated system. Thus, Dixon (1994: 229) emphasizes the importance of a holistic approach in linguistics, which pays careful attention to every aspect or level of language, such as phonology, morphology, syntax, semantics, and so on. He goes on to say, "Someone who specialises in just one or two of these levels will never achieve revealing linguistic description or explanation".

One example to show the importance of a holistic approach is the following (Tsunoda 1998b: 23). Many linguists are preoccupied with syntax, failing to pay attention to other aspects of the language. The same applies to studies of English pronominalization, such as Langacker (1969) and Ross (1969). There is, however, an important aspect to this phenomenon that is neglected in the above-cited studies. Thus, in the early 1970s, Takeshi Shibata, a visiting linguist from Japan, gave a lecture at the Japanese Department of Monash University, Melbourne. The lecture was preceded by an introduction presented by a lecturer, who is also a Japanese, and the introduction proceeded as follows: "*Professor Takeshi Shibata .... He ..., He ..., ...*". That is, the name "Professor Takeshi Shibata" was mentioned only once, at the beginning of the introduction, and the subsequent references all employed the pronoun *he*. This is perfectly correct and grammatical, and conforms to the analysis proposed by Langacker and by Ross. However, after the lecture, an Australian friend of the writer's remarked to the following effect: That introduction was really rude; the pronoun *he* should not be repeated many times, and after two or three repetitions, the name *Professor Shibata* should be mentioned, in place of the pronoun. This anecdote provides compelling evidence to state that the above-cited syntactic studies of English pronominalization are not incorrect, but that they are incomplete, paying no attention to actual language use.

Specifically regarding fieldwork, Rice (2001: 230) gives the following advice: "Avoid isolating areas of language so that you lose track of the fact language is a complex, dynamic system". Similar views and advice are provided by many linguists, e.g. Everett (2001: 170), and Hyman (2001: 30). This stance is described by Hyman (2001: 30) as "a dedication to the whole language".

Reason 1 has to do with linguistics and fieldwork in general, while Reason 2 is specifically concerned with fieldwork on endangered languages.

[2] Reason 2. Aims of documenting endangered languages include the following (12.2.2):

(a) to secure data for linguistics, i.e. for themselves and/or other researchers;

(b) to document endangered languages as a cultural heritage of humankind, for their benefit, and;

(c) to document endangered languages as a cultural heritage of the communities, for their benefit – so that the research result can be used, for instance, for language revitalization.

In the case of endangered languages, where there will be likely to be no speakers left for the future generations to consult with, it is essential to document an endangered language (or dialect) in such as way that "an interested person will be able to know what the once-existent language or the dialect was like" (Tamura 2000b: 49; translation by the writer). This is for the benefits of both the science of linguistics and the communities.

Regarding the benefits for the science, Mithun (2001: 53) advises as follows: "It is not appropriate to limit the record to data pertinent to issues of current theoretical interest". (See also Evans 2001: 259.) This is because we "cannot tell what will be of theoretical interest later in the field of linguistics" (Grinevald 2001: 291), and therefore, ideally the data obtained "should provide the basis for answers to questions we do not yet know enough to ask" (Mithun 2001: 34).

Concerning the benefits to communities, revitalization of a given language would be virtually impossible if the information on it is limited to, say, its phonology or syntax. This shows the importance of documenting a language in its entirety. Furthermore, perhaps all the language revitalization activities concern not only the language but also the culture (11.3.1). This underlines the importance of documenting the language's socio-cultural background.

13.2.3. Holistic approach

A holistic approach requires the linguist to look at the language in terms of various aspects, such as the following: (i) phonology, (ii) morphology, (iii) syntax, (iv) discourse, (v) semantics, (vi) vocabulary (including personal names and place names; recall that place names are important for language revitalization (11.5.13)), (vii) genres, e.g. monologue, dialogue, oral literature, (viii) styles (part 1), e.g. avoidance style, respect style, secret style, song style, rit-

ual style, (ix) styles (part 2), e.g. child language, motherese (i.e. caretaker's speech), old people's style, men's style, women's style, (x) sociolinguistics, including speech situation, (xi) dialectology, and (xii) historical linguistics.

In addition, concerning the socio-cultural background and related issues, the linguist needs to examine aspects such as the following: (xiii) non-verbal aspects, e.g. sign language, gestures, (xiv) kinship system and kin terms, (xv) naming, (xvi) mythology, (xvii) folklore, (xviii) songs, (xix) dances, (xx) social history, and (xxi) flora and fauna, including traditional medicine. An example of (xiii) is the following: Jaru people of Kimberley, Western Australia "protrude lips to indicate direction" (Tsunoda 1981: 15).

As Grinevald (2001: 288) points out, ideally documentation of an endangered language should be carried out by a multidisciplinary team of fieldworkers, such as linguists, anthropologists, ethno-botanists, musicologists, historians, and so on.

In sum, a well-balanced documentation is important. That is, as Marianne Mithun (cited by Yamamoto 1998: 226) says, "Fieldworkers cannot afford to be narrow". The importance of a holistic approach is central in the documentation program proposed by Himmelmann (n.d., 1998), that by Lehmann (1996, 1999, 2001, 2002), and that by Moore (2001). Himmelmann's and Lehmann's programs will be discussed in 13.2.4.

Dixon's (1972) study of Dyirbal of Queensland, Australia is a fine example of a holistic approach; it looks at many (though not all) of the above-listed aspects of the language – except that he published a book on songs separately (Dixon and Koch 1996). The writer would strongly recommend that every fieldworker read Dixon (1972), irrespective of the language he/she works on.

Unfortunately, however, still now it is not uncommon to come across a fieldworker who focuses on just one aspect of the language, e.g. phonology only, syntax only, or vocabulary only (cf. Dixon 1997: 133). A holistic approach is painfully absent among many linguists in countries such as Japan. Thus, in Australia, and probably in many other countries, fieldworkers are expected to write a grammar (cf. Grinevald 2001 and Kaufman 2001), whereas in Japan there is no such expectation whatsoever.

Indeed, a narrow approach may be convenient as a research method, and consequently useful for the purpose of enhancing the researcher's academic success (cf. 12.2.2-(b)). But it is not advisable in documentation of endangered languages. Results obtained by means of a narrow approach will not be useful for a person who wants "to know what the once-existent language or dialect was like". Nor are they useful for revitalization of languages and cultures.

Voegelin and Voegelin (1977: 338) point out the absence of adequate treatment of syntax in grammars of North American languages. Similarly, Dixon (1979: 129) notes that it is often the case that languages "have not been properly described at the syntactic level (it is sometimes hard to know whether this indicates something about the language or something about the linguist!)". More than two decades have passed since the above-cited papers were published, but the situation has not improved in countries such as Japan, where many fieldworkers are concerned with phonology and morphology, but not many pay careful attention to syntax. Needless to say, syntactic descriptions, too, are essential. This is not only for other linguists, but also for communities. Thus, if little or no attention had been paid to syntax in the writer's study of Warrungu, today's Warrungu people would have no way of knowing that their ancestral language had a unique phenomenon called syntactic ergativity (11.5.14-[2]).

The community, too, is beginning to criticize a narrow approach. Thus, as mentioned in 12.2.3, in Guatemala the community criticized certain linguists for "Doing partial and simplistic studies of Mayan languages for reasons of economy, ease, preference or incompetence" (England 1992: 30).

Admittedly, it is no easy task to make a holistic documentation of a language, but linguists should always bear in mind the importance of a holistic approach and they should not confine their attention to just one aspect of the language or dialect.

13.2.4. Lehmann's and Himmelmann's programs

Lehmann (1996, 1999, 2001, 2002) and Himmelmann (n.d., 1998) each proposed a program for documenting endangered languages. Both programs are truly comprehensive, and include the holistic approach proposed in 13.2.3. Lehmann's program is sketched in the following, but what is stated about his program in the main applies to Himmelmann's program as well. Lehmann (1999: 12) proposes a three-level approach, as shown below.

Structure of a language description
1. Documentation
   1.1. Monological texts
   1.2. Polylogical texts, e.g. conversation
2. Description
   2.1. Situation of the language
      2.1.0. Name of the language
      2.1.1. Ethnographic situation
      2.1.2. Social situation
      2.1.3. Genetic situation
      2.1.4. Historical situation

2.2. System of the language
2.2.1. Semantic system
2.2.1.1. Lexicon
2.2.1.2. Grammar
2.2.2. Expression systems
2.2.2.1. Primary: phonology
2.2.2.2. Secondary: writing
3. Comments on the description
3.1. History of research
3.2. Place of present description

Most components of Lehmann's program will be self-evident, but the following comments may be useful.

(a) Lehmann (1999: 11) distinguishes between documentation and description, as characterized below.

> Documentation of a language is an activity (and, derivatively, its result) that gathers, processes and exhibits a sample of data of the language that is representative of its linguistic structure and gives a fair impression of how and for what purposes the language is used. Its purpose is to represent the language for those who do not have access to the language itself. 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.

(b) "Comments on the description" concern the nature of the data, e.g. how the data was obtained, how reliable it is, and so on. The speaker's proficiency needs to be carefully evaluated (Dorian 1977: 29–30, 1986a: 564, 1999a:115–119, 2001a), taking into account his/her biography (Dimmendaal 2001: 61; Elmendorf 1981: 45; Swadesh 1948: 234). Obviously, these points are essential when working on endangered languages. The data obtained may not reflect the stage where the language was healthy (Campbell 1994: 1966; Dorian 1973: 437; 1977: 23–24). Furthermore, it is useful to present information on the conditions of the work, the obstacles encountered, the reasons for choosing the site, sources and method (Dorian 1986a: 573).

(c) Lehmann's program includes an ethnographic and sociolinguistic account of language use. This incorporates Fishman's (1965) dictum, *Who speaks what language to whom and when?*, and Hymes' (1967, 1968: 110, 113) framework for "the ethnography of speaking" (both were cited in 7.2.1), but it is much more comprehensive and detailed than either of them. (Bohnemeyer, Lehmann, and Verhoeven 1994 provide an even more comprehensive guideline for an ethnographic and sociolinguistic account of languages.) An example to show the importance of this approach is the following.

Regarding speech act participants, Lehmann proposes the following classification for investigation: supernatural vs. human being vs. animal vs. none. Such a classification may appear too detailed and unnecessary. But Hinton (1994: 45–47) describes how animals talk in stories of Californian languages, and this in turn indicates that fieldworkers need to bear this classification in mind.

In 13.2.3, we recommended a holistic approach, and in 13.1.4 we have been looking at Lehmann's program. These are ideally what should be aimed at in documentation of endangered languages (and healthy ones, as well). However, in practice, this goal is extremely difficult to achieve. There are at least three reasons for this: (i) limitation on time, (ii) limitation on the linguist's competence (this must be admitted in certain cases), and (iii) the endangerment situation. As examples of (iii), the writer was able to record 8 words from the late Alec White, the last speaker of Gabilgaba of Queensland (mentioned in 10.4.3), and about 50 words from the late Reggie Palm Island, the last speaker of Buluguyban of Queensland (5.2-[7], 8.4.4.3, 9.4.1.1-[1]-(b-iv)). It was simply impossible to obtain the kind of exhaustive data recommended in Lehman's program.

Nonetheless, despite the existence of these practical difficulties, linguists need to keep in mind the importance of a holistic and comprehensive approach.

13.2.5. Fieldwork manuals, questionnaires, and memoirs

There are a large number of manuals for fieldwork, e.g. Bouquiaux and Thomas (1992), Samarin (1967), and Vaux and Cooper (1999). Also, questionnaires for fieldwork are available, although they are not numerous. Bouquiaux and Thomas (1992) include a very detailed questionnaire, on phonology, morphology, syntax, vocabulary, and socio-cultural background.

The profile of languages varies from region to region, and this is particularly true of the vocabulary. Thus, the word for "kangaroo" is indispensable for Australian Aboriginal languages, but it will be irrelevant for languages of, say, North America. It will be useful to have questionnaires which will suit the profile of the languages in question. But the availability of questionnaires seems to vary from region to region. Thus, a number of questionnaires have been published for Australian Aboriginal languages, e.g. Australian Institute of Aboriginal Studies (n.d.), Capell (1845), and Sutton and Walsh (1979). In addition, there are unpublished questionnaires by Barry Blake, by R.M.W. Dixon, and by K.L. Hale. In contrast with Australia, it is difficult to find questionnaires, say, for languages of Southeast Asia and South Asia, apart from Abbi (2001).

A list of fieldwork manuals and questionnaires is available at: http://lucy.sgu.ac.jp:8080/kiki/FMPro.

There are also accounts of fieldwork, e.g. Dixon (1989), Dorian (1986a), Grinevald (2001), Nagy (2000), Watson (1989), David Wilkins (1992), and the papers in Newman and Ratliff (2001b). Mc Laughlin and Sall's (2001) account is particularly interesting and enlightening; it includes the perspective of the "informant" (i.e. Thierno Seydou Sall).

Regarding questionnaires, Grinevald states: They are of limited use, although they may be useful for guidelines for direct elicitation. There is something intrinsically inappropriate in approaching a new language, undescribed yet, through the grid of a questionnaire (Grinevald 2001: 298). However, the writer's experience in working on Australian Aboriginal languages is different from Grinevald's. The questionnaires cited above have been invaluable (at the initial stage of investigation, at least) and without them the fieldwork would have been much more difficult. (However, each language has its own characteristics, and questionnaires may not be of much use at an advanced stage of investigation.) One of the reasons for this difference may be that Australian Aboriginal languages are on the whole fairly homogenous (see Dixon 1980), and that consequently the available questionnaires may be used for many (if not all) of the languages (no doubt, with minor alterations to the questionnaires, where necessary). In contrast, genetic variety and linguistic diversity of a very high degree are observed in the languages of the areas where Grinevald has been working, i.e. South and Central America (Adelaar 1991: 45–46; Garza and Lastra 1991: 93; Grinevald 1998: 127). No doubt this diversity makes it difficult or impossible to devise a questionnaire which will be applicable to a large number of languages.

13.2.6. Data collection procedure

Different linguists employ different procedures for data collection, and also the procedure may vary from situation to situation. The procedures that the writer has employed may be classified into the following two groups.

[1] The writer was able to collect about 50 words in Buluguyban, and 8 words in Gabilgaba, of Queensland. For such languages, he went through the most basic items in a vocabulary questionnaire.

[2] For Warrungu of Queensland and Jaru of Western Australia, on which a much larger amount of information was obtained, the procedure adopted is roughly as follows. First, starting with basic vocabulary, nouns were elicited, followed by verbs. Verbs were obtained in translations of English sentences, and not in isolation. The English sentences were designed to elicit information on

tense, aspect, mood or the like, as well as verb roots themselves. E.g. *the man caught a kangaroo yesterday*, and *the man will catch a kangaroo tomorrow*. In addition, sentences to elicit cases of nouns and pronouns were employed. At that stage, an outline of the language, i.e. basic phonology, vocabulary and morphology, had been obtained. Then, texts were recorded and transcribed. They yielded the kind of lexical and morphological information which had not been obtained through elicitation. (As every fieldworker knows, texts collection is not only "time-consuming" (Grinevald 1998: 158), but also excruciating! Thus, it takes the writer about 10 hours to transcribe 30 minutes of texts. Transcription of conversations is a nightmare.) Furthermore, they yielded the kind of syntactic information (i) which had been difficult to obtain through elicitation (e.g. subordination, such as *I saw him walking*), and (ii) which had not even been envisaged, e.g. syntactic ergativity (cf. 8.2.5.1). In addition, sentences and remarks uttered spontaneously were written down (or, tape-recorded). It will be seen that both elicitation and text collection play an important part (cf. Chelliah 2001). Information on the socio-cultural background, too, was collected.

It would be useful to learn to speak the language and conduct fieldwork in it (Craig 1997: 27), as K.L. Hale did (Hale 2001). (The writer has never been able to adopt this method.) However, the "monolingual method" has disadvantages as well; see Everett (2001: 182–184).

13.2.7. Fieldwork on endangered languages

As noted in 13.2.1, there is no spectacular method for documenting endangered – as opposed to – healthy languages. Thus, the fieldworker needs to be familiar with previous works on the language, as well those on related languages, if there are any (Dimmendaal 2001: 56; Evans 2001: 261; Rice 2001: 230). He/she needs to bear in mind that he/she becomes part of the social network of the community (Dimmendaal 2001: 55) and is integrated into it, which "requires the building of bonds of trust, respect, and friendship" (Everett 2001: 170). He/she needs, where required, to respect the speakers' confidentiality, anonymity, and privacy (Dimmendaal 2001: 68; Dorian 1986a: 573; Newman and Ratliff 2001a: 4). (The role and ethics of researchers were discussed in Chapter 12.)

Nonetheless, endangered languages differ from healthy ones in a number of respects. For example, the numbers of speakers have been severely reduced, and vital linguistic communities are no longer maintained. Often the speakers are scattered in various places, and have no opportunity to gather to speak the language. They are advanced in their age, and their memory may be failing.

There will be no speaker left in the future. It is no longer possible to record various genres, styles of speech, and speech situations. (See Grinevald 2001: 292–294, 297). These differences necessitate special care when working on endangered languages. Many of the accounts of fieldwork cited in 13.2.5 concern fieldwork on endangered languages, and they contain useful, practical advice for such a fieldwork situation.

The special circumstances surrounding endangered languages and the special care that must be taken accordingly, include the following.

[1] Variation among speakers

As seen in Chapter 9, when working on endangered languages, the fieldworker is likely to encounter various types of speakers, and, recognition of the diversity of speakers is crucial (cf. Rigsby 1987: 371). We shall look at two issues: (i) degree of proficiency, and (ii) partial knowledge.

(a) Degree of proficiency. Different speakers have different degrees of proficiency in the language, and (if there is a sufficient number of speakers) they may exhibit a proficiency continuum (cf. Figure 8-1). Also, recall (8.2.4.1-[2]) that the allomorphy of the ergative case in Gugu-Badhun is very similar to Stage 2 in the simplification process of the ergative allomorphy in Dyirbal, and that Peter Sutton attributes this to language obsolescence. These facts indicate that the fieldworker needs to be aware of the nature and the limitation of the data obtained. Dorian (1973: 437) notes: "the last speakers of a dying language can be a very misleading source of information about … the language".

(b) Partial knowledge may be distributed across speakers. This points to the imperative need to assemble data from a variety of speakers, in order to reconstruct the full system (Grinevald 2001: 293, 297). Thus, according to the belief of Aboriginal Australians around Halls Creek, Western Australia, there live five sisters in the moon. Mona Green (a Jaru speaker) remembered four names: *dulayibangali*, *jandarabangali*, *giwandabangali*, and *wijrrabangali*. Maggie Scott (a Wanyjirra speaker) remembered three names: *wijrrabangali*, *dulayibangali*, and *gan.gurrabangali*. Fortunately, the three names Maggie Scott remembered did not coincide with the four names that Mona Green remembered. Jointly they produced all of the five names: *dulayibangali*, *jandarabangali*, *giwandabangali*, *wijrrabangali*, and *gan.gurrabangali*. Also, a given language may have men's speech and women's speech (see Hinton 1994: 139–143; Taylor 1982, 1989), and it is important to record both male and female speakers.

[2] Coverage of data

Grinevald (2001: 291) advises as follows: You may be the only one, and the last one to work on the language, which makes it vital to collect all the data you can collect, even data in which you may not be personally interested because of your own theoretical leaning and interests (cf. 13.2.2-[2]). Recall that one of the two criteria for assessing the quality of data is comprehensiveness (13.2.2).

In linguistic fieldwork, and particularly when working on endangered languages, linguists tend to be preoccupied with adult speakers, and especially elderly speakers. However, attention must be paid to language acquisition (Grinevald 2001: 294), and also "motherese", i.e. caretaker's speech, if any opportunity arises. One example of child language and one of motherese follow.

An example of child language. In 1995, the writer was visiting Mt. Mayu community of Northern Territory (by far the most remote community he has ever visited), and was interviewing Kathleen Duncan, a Wanyjirra speaker. A little baby was nearby; he is Chris Duncan, about 1 or 2 years old at that time, and Kathleen's son's son. He was trying to say something, and the writer turned the microphone to him. Chris was saying something like [aɟo] or [aoɟo]. It turned out that he was trying to say */ngawuju/* ([ŋaoɟo] 'father's mother') to Kathleen, i.e. his father's mother. (As predicted by Jakobson 1968:53, the phoneme */ng/* ([ŋ]) was not acquired at the time */j/* ([ɟ]) had already been acquired.) That was a rare opportunity, being the only occasion that the writer has ever heard or recorded a baby speaking an Australian Aboriginal language. This is remarkable in view of the fact that in 1995 Wanyjirra was already facing extinction, with probably less than 10 speakers left.

An example of motherese. In the mid-1970s, in Halls Creek, Western Australia, the writer heard Tanba Banks (Jaru names: Danbangali, Jidngarri), a Jaru speaker (a woman), saying [abolo] and [alai] to a baby (her sister's daughter and about 1 year old). These words correspond to the following counterparts in the adult speech: */ngabulu/*([ŋabolo] 'milk') and */ngalayi/*([ŋalai]'(woman's) child'). Here again, */ng/*was dropped. This suggests that Tanba Banks is aware that babies have not acquired */ng/*by the time they have acquired */b/*and */l/*. Again, that was the only occasion the writer has ever heard motherese of any Australian Aboriginal language.

These anecdotes show how important it is to pay attention to everything that is happening around the fieldworker. He/she may even have an opportunity to record child language when the language is already on the verge of extinction.

[3] Languages to record

My suggestion is: Record any language you come into contact with and record as much as you can – even if you don't have time to analyze the data. An example is the following. In the mid-1970s, while working on Jaru, the writer obtained some basic materials on surrounding languages, such as Malngin. He never managed to analyze the Malngin data, but twenty years later, in the mid-

1990s, Megumi Ise, a postgraduate student from the University of Hokkaido, Japan, used his Malngin data, checked it with the last two Malngin speakers, and wrote a description of the language (Ise 1999).

[4] Natural language use

Natural data, i.e. natural speech or natural discourse, is important (see Dimmendaal 2001: 71, and Mc Laughlin and Sall 2001: 202). It basically means data that is not the product of translation (Grinevald 2001: 293). However, endangered languages are no longer used as the medium of communication, and it is no longer possible to record them in their natural settings (Grinevald 2001: 292), which makes it necessary to recreate settings for natural language use. Specifically, natural data may be produced spontaneously, or it may be produced on the basis of certain kinds of verbal, visual or manipulated stimuli (Grinevald 2001: 293).

The best way is to bring speakers together in order to provide opportunities for social gatherings and language interaction. Ideally, the data should be videotaped (Grinevald 2001: 294). An example is the following. A six-day camping trip which in 1999 the writer participated in and which involved three Wanyjirra speakers produced an ideal setting for linguistic interaction, and yielded a large amount of natural data. Needless to say, the speakers thoroughly enjoyed the trip, which took them back to the country where they grew up and to a number of important Dreaming sites.

Bringing speakers together is easier said than done (Grinevald 2001: 294). If this is not feasible, then one alternative to obtain natural data is to request the speaker to talk about still pictures, videos, or manipulated objects (Grinevald 2001: 295–296). Narrative texts (e.g. traditional tales, personal narratives), too, should be collected in a natural setting, i.e. in the presence of another person, to control for the artificiality of taking to a machine (Grinevald 2001: 294).

It is convenient to mention [5] here, although this is not confined to fieldwork on endangered languages.

[5] Audio- and video-recording

It is important to make audio-recording and also video-recording of texts, conversations, gestures (including sign language), songs, dances, and so on (Krauss 1992: 8).

In this connection, the following needs to be mentioned. In the 1970s, when the writer was a student, in efforts to economize on tapes, he sometimes only wrote down words and sentences, without tape-recording them. In retrospect, that was a serious mistake. He should have recorded everything. In elicitation, it may take the speaker a while to recall the word requested for, and it may be considered waste to keep the tape recorder running during that time. However,

this may not be waste. As seen in 8.2.7.2 and 8.4.4.6, in language obsolescence, some words are more prone to loss, while others are more resistant to it. If it takes the speaker a shorter time to recall some words, and a longer time to recall others, this difference may indicate which parts of the vocabulary are more affected than others, and it will provide important data. Therefore, it is not really waste to keep the tape recorder running.

[6] Latent speakers, recallers, and second language speakers

Even when all the speakers of the language appear to have passed away, there may be people who know the language. Thus, there may be people who conceal or deny their knowledge of the language, for fear of, e.g., discrimination or prosecution; they are latent speakers (9.2.1). There may be people who regain their linguistic competence after some work with the linguist; they are recallers or recollecters (9.4.1.2). There may also be "another-group language speakers" (5.2-[8]), who speak the language of a group other than their own group. They are not "owners" of the language, although they speak it (10.2.2.2). They may "hold back from showing their actual language competence … because they do not have primary rights as a 'language owner'" (Evans 2001: 273). Evans (2001: 273) concludes: "Such cases illustrate that it is rash to make pronouncements on who is a "last speaker," and … patience, and repeated visits to a community over time, can often reveal a higher level of knowledge in some individuals than one originally suspects". It is important not to make any hasty judgement on speakers' proficiency. Recall (cf. 9.6) that Maggie Scott, a Wanyjirra speaker of Australia, turned out to have retained a knowledge of a complex and irregular phenomenon called dual replacement, although this was totally unexpected judging by her knowledge of the lexicon.

We emphasized in [1] the importance of collecting data from more than one speaker. However, this is not always possible. (Thus, in the writer's fieldwork, only one speaker was available for each of the following languages: Warrungu, Gabilgaba, and Buluguyban of Queensland, and Gardangarurru of Northern Territory.) Then, what can be done if there is only one speaker available? The following is a list of what can be done, and what the writer did when working with Alf Palmer on Warrungu.

[7] To check the data again

Dixon (1983: 504) comments on his vocabulary of Nyawaygi, formerly spoken immediately east of Warrungu: "Every word has been checked at least twice, at an interval of a year or more". Similarly, the writer played tapes of Warrungu texts, recorded from Alf Palmer, to him twice, with perhaps a couple of weeks' interval. There is, however, a pitfall in repeating questions. The speaker might respond by saying "You asked me that before", indicating that he/she is bored or frustrated with repetitions (cf. Yamamoto 1998:214) or that he/she has a cer-

tain degree of doubt on the linguist's competence! Therefore, repeated questions need to be carefully phrased.

There may be an occasion to check the data with another speaker when all the hopes of doing this seem to have already gone, as shown by the following anecdote. From 1971 to 1974, the writer worked with the late Alf Palmer, a Warrungu speaker. He was aware of the existence of another Warrungu speaker, the late Alec Collins, but he did not know his whereabouts. Then, finally, in August 1974 he found Alec Collins, who was – Alas! – lying in bed at Herberton Hospital. Alec Collins was already too weak to do any linguistic work with, but the writer talked to him in the Warrungu language that he had learned from Alf Palmer. It seems certain that Alec Collins understood the writer's Warrungu perfectly. The writer asked him a fair number of questions in Warrungu, which he answered in Warrungu. One example is (13-1), in which the writer asked Alec Collins about Alf Palmer:

(13-1) TT: *ngani-Ø* *nyungu* *gugu-Ø?*
what-ABS 3SG.GEN language-ABS
'What [is] his language?'
AC: *warrungu-Ø.*
Warrungu-ABS
'[His language is] Warrungu.'

(Warrungu has no word for "be".) Furthermore, the writer made up and narrated a hunting story in Warrungu (the kind of stories Alf Palmer had narrated to him in many texts), which involves antipassives and syntactic ergativity (cf. 8.2.5.1). Alec Collins apparently enjoyed it very much. There were no sings of incomprehension on his part, which again suggests that Warrungu as passed on to the writer by Alf Palmer is reliable, being perfectly interpretable by another speaker of the language.

[8] To look for irregularities in paradigms

As seen in 8.2.4.1 and 8.4.4.3, language obsolescence often causes levelling of paradigms. Therefore, if there is any irregularity in a given paradigm, and if it occurs persistently, then it is likely to constitute reliable data (cf. Dorian 1977: 30). (Imagine yourself working with the last speaker of English. If he/she consistently used the irregular forms *went* and *gone*, rather than the regular forms **goed* and **goed*, then these forms would be likely to be bona fide forms, rather than the speaker's invention.) One example from Warrungu is cited. For vowel-final stems, the ergative suffix is *-nggu*, e.g. *bama-nggu* 'man-ERG', and *gunira-nggu* 'Gunira-ERG'. (*Gunira* is the Warrungu name given to the writer by Alf Palmer.) Vowel-final kin nouns, too, take this suffix, e.g. *gaya-nggu* 'father-ERG' and *gaya-na-nggu* 'father-KIN-ERG'. (*-na* is a derivational suffix

attached to vowel-final kin roots.) Now, there is at least one kin stem that can take the irregular *-lu* for its ergative, viz. *gaya-na-lu* 'father-KIN-ERG'. Interestingly, *-lu* cannot be used if *-na* is deleted, that is, **gaya-lu* (Tsunoda 1974: 84, 179). Thus:

gaya-nggu *gaya-na-nggu*
**gaya-lu* *gaya-na-lu*

As can be seen, the use of *-lu* is extremely irregular. Nonetheless, its use is consistent, and it must be considered a bona fide Warrungu form. (Dixon 1980: 319 postulates that, at one stage in the diachronic development of Australian languages, the ergative suffix for vowel-stems was *-nggu* for disyllabic stems and *-lu* for trisyllabic or longer stems. This is the case with the contemporary Jaru; see Tsunoda 1981: 54. This suggests that the irregular form *gaya-na-lu* may be a remnant of that stage.) This example shows that the existence of irregular forms may provide the data with credibility.

Data on related languages or earlier data on the same language may be brought to check the reliability of the data obtained, but if everything else fails, "an assessment of the speaker's overall competence may be the only evidence one can bring to bear" (Evans 2001: 261).

In view of space consideration, it is impossible to list all the useful tips for fieldwork. See the manuals, questionnaires, and accounts of fieldwork cited in 13.2.5. Just one anecdote is cited below.

[9] False teeth

Peter Sutton (p.c.) suspected that Gugu-Badhun, formerly spoken immediately south of Warrungu, had an opposition, in stops and nasals, between lamino-dentals and lamino-palatals, i.e. */dh/*vs. */dy/*, and */nh/*vs. */ny/*. However, the late Harry Gertz, one of the last fluent speakers of the language, no longer had teeth, and it was not possible to confirm the existence of this opposition. Sutton requested Gertz to wear a set of false teeth. Gertz then went and found his set of false teeth, which he inserted. The pronunciation with the false teeth on confirmed the existence of the opposition in question. This anecdote shows the importance of exercising ingenuity – particularly when working with the last speakers.

We now turn to the last issue.

[10] Data Processing

The data needs to be processed in such a way that future analysis will be possible (Grinevald 2001: 291–292; and see also Lehmann 2001: 89). For example, transcriptions of texts need to be accompanied by morpheme-by-morpheme glosses, literal translations, and free translations (Grinevald 2001: 292; Lehmann 2001: 91). It is also useful to include ethnographic notes and comments by the speaker(s). An example of recording comments is the following. In the

late 1990s, the writer started playing tapes of texts recorded from the late Nyun. Maggaja Paddy (a speaker of Wanyjirra, immediately east of Jaru) in 1976, to Maggie Scott, another Wanyjirra speaker. Maggie Scott would say for a given sentence, "We can also say like this", and provide alternative expressions. She would also say, "This is short-cut" (i.e. this sentence is incomplete), and replace it with a complete sentence. And so on. All these comments were included in the publications of the Wanyjirra texts (e.g. Tsunoda 2001c).

Recall (cf. 13.2.2) that one of the two criteria for assessing the quality of data is accuracy. The reliability of the data needs to be assessed (Dorian 1986a: 564), and care must be taken in order to provide a reliable documentation. Thus, Dixon (1983: 504) remarks on his vocabulary of Nyawaygi (cf. [7] above), which is based on the data mainly collected from the last two speakers (Long Heron and Willie Seaton):

> Items given by Long Heron or in minor sources were all checked out with Willie Seaton; all forms given by Seaton were checked with him on a later occasion. About 50 items for which confirmation could not be obtained have been eliminated from the vocabulary; some may have been simply mistakes, some may be words from neighbouring languages, but some may be bona fide Nyawaygi terms that Seaton just did not know.

The care taken by Dixon to maintain a high degree of accuracy is admirable. Nonetheless, it is preferable to adopt a different method for presenting the vocabulary of a language. First, all the items obtained will be included, and no item will be eliminated. Even those items for which confirmation has not been obtained will be included. Recall that, as Dixon suggests, they may be bona fide words of the language. Speakers may furnish conflicting comments such as the following, but such comments will be all included in the vocabulary presentation.

(a) "Speaker A gave this word, but later he/she said there was no such word". This may have been caused by an error on the side of the linguist, e.g. mishearing. But this may also be due to an error on the side of the speaker. If the latter is the case, such items may turn out to provide interesting data on performance errors, e.g. metathesis. Or, they may foreshadow a future phonological change (if the language can survive at all).

(b) "This word was given by Speaker A, but it was not recognized by Speaker B". This may be a reflection of dialectal variations.

(c) "Speaker A gave this word as Xish, but later he/she said that it was Yish". Such items may be indicative of incipient borrowing, and they may be useful for study of language contact.

(d) "Speaker A said this word was Xish, but Speaker B said it was Yish". This looks confusing, but it has to be accepted. Different speakers may have

different ideas as to which word belongs to which language or which dialect. No two people speak in exactly the same way. Thus, the late Robert Moses (the writer's main teacher for Jaru; see Tsunoda 1981) and his brother, the late Barney Moses, used different words for a very basic item such as 'woman': */ngumbirr/* by Robert Moses, and */ngaringga/*by Barney Moses. (*/ngumbirr/* and */ngaringga/* are mainly used in the western dialect and the eastern dialect, respectively. Barney Moses' speech seems to have been the western dialect, apart from the use of */ngaringga/*'woman'.) As another example, the current three Wanyjirra speakers exhibit slight variations among themselves, despite the fact that they all grew up at the same place, i.e. Inverway Station of Northern Territory. In particular, Tiny McCale mixes a few suffixes and nouns which the other Wanyjirra speakers consider to be Gurindji, a language spoken immediately east of Wanyjirra. This is despite the facts that Tiny McCale was born and brought up in the Wanyjirra country (i.e. at Inverway Station), that she has never lived in the Gurindji country (except for a few short visits there), that her late father (Wanyjirra name: Gurdiwirdi, English name: Inverway Joe) is considered a most representative Wanyjirra man, and that she considers herself a Wanyjirra speaker. (Dorian 1994a, 2001a reports the existence of "unexplained" individual variations in the Gaelic spoken in small and homogenous communities in Scotland. Regarding the Rhoslannerchrugog dialect of Welsh, Jones 1998: 206 reports isolated occurrences of items that are considered to belong to another dialect. These works indicate that such individual variations may be more common than has been assumed to be the case.) Furthermore, traditionally Aboriginal Australians are bi-lingual or multi-lingual (Dixon 1980: 32, 46, 55, 69, 94–96, 478; Evans 2001: 256), and, as Dorian (1986a: 557) notes, in the case of bi- or multi-lingual speakers, "it is difficult to assess the amount of cross-language influence".

13.2.8. Research results: triad (grammar, vocabulary, texts) and raw data

Research results may be classified into two groups: results of analysis, and raw data.

[1] Triad: grammar, vocabulary, and texts

It has been considered important to publish "the triad" (Grinevald 2001: 287), i.e. a set of grammar, texts and vocabulary of a given language – the so-called Boasian tradition, apparently initiated by Franz Boas (see Boas 1917: 1; and also Krauss 2001: 33; Mithun 2001: 35). Heath's (1980, 1982, 1984) work on Nunggubuyu of Northern Territory, Australia, is a fine example; he published a grammar of 664 pages, texts of 556 pages, and a dictionary of 399 pages. (Un-

fortunately, however, this respectable tradition is painfully absent among many linguists in countries such as Japan.)

In 13.2 .6, we saw the procedures that the writer has adopted for data collection in fieldwork. Now, the procedure that he has adopted for analysis and write-up is the following. After texts were transcribed and checked, gaps in the information on morphosyntax were filled in, where possible. Vocabulary was collected from elicitation materials and texts. Then, a grammar was written.

For Jaru, only the grammar has been published (Tsunoda 1981), and the vocabulary and texts as yet remain unpublished, although the writer lodged photocopies of Jaru vocabulary cards with the Kimberley Language Resource Centre. The linguists at the Centre consulted the grammar, and, on the basis of the information obtained from it and from the vocabulary cards, the Centre published a Jaru dictionary book, and Jaru story books, cassette tapes and other language materials in or on Jaru (e.g. Kimberley Language Resource Centre 1992, 1996b). Also, in consultation with Tsunoda (1981), the Catholic Board of Education prepared Jaru materials, which are used at two Catholic schools of that locality (Tsunoda 2000a: 109).

The preceding shows that, once a grammar is available, other linguists can consult it and prepare a vocabulary and story books. In contrast, however, it is much more difficult, though not impossible, to write a grammar on the basis of texts alone, and it is impossible to write a grammar on the basis of a dictionary alone. Therefore, in the writer's view, the primary task of fieldworker linguists is to write a grammar, although this does not deny the importance of vocabulary and texts, and raw data (see [2] below). (See Tsunoda 2000a: 109; and also Grinevald 2001: 287.)

There are a number of guidelines for writing grammars, e.g. Comrie and Smith (1977), and Comrie, Croft, Lehmann, and Zaefferer (1993). The grammatical profile varies from language to language, and from region to region, which makes it extremely difficult, if not impossible, to prepare one single guideline for writing a grammar of all the languages of the world. The guideline by Blake and Dixon (n.d.) is useful for Australian Aboriginal languages.

[2] Raw data

Himmelmann (n.d., 1998), Lehmann (1996, 1999, 2001, 2002), Moore (2001), and Tamura (2000b) argue for the importance of publishing raw data, as distinct from the results of analysis. Raw data is important for a number of reasons, including the following (Tsunoda 2001a: 268, 2001b: 6).

(a) Technical papers are generally unintelligible to the community members. The same applies to grammars and dictionaries if they are technically oriented.

(b) A given piece of analysis – in particular, a paper – presents only a fraction of the language, and does not provide an entire picture of the language.

(c) A given analysis may contain errors on the part of the linguist.

(d) The linguist may omit important information from his/her published works. Recall Dixon's comments on his Nyawaygi vocabulary, and the writer's comments on them (13.2.7-[10]).

Raw data, accessible to community members and linguists, may take the form of field notes, audio-tapes, or video-tapes. Particularly in the case of raw data, care should be taken to respects the privacy and, where desired, confidentiality of speakers and information. Ideally, the results of analysis and raw data should include information on the various aspects of the language and its sociocultural background listed in 13.2.3 and 13.2.4. Needless to say, grammars, vocabularies, texts, and audi- and video-materials are all important for language revitalization activities (cf. Schmidt 1990: 79, 104, 108, 111; and Bauman 1980: 11–12, cited by Dauenhauer and Dauenhauer 1998: 60).

In addition, multimedia resources are useful, for instance, language revitalization, as seen in 11.5.9.

13.3. Training of fieldworkers

13.3.1. Introduction

There are two aspects to the training of linguistic fieldworkers: (i) content of documentation, and (ii) social context of fieldwork. Writers such as Grinevald (2001), David Wilkins (1992), and some in Newman and Ratliff (2001b) argue – and the present writer concurs – that currently available courses on field method are not adequate, one of the main reasons being that they concentrate on (i), paying virtually no attention to (ii). A likely outcome is that students who have gone through a field work method course are not well-prepared for the reality of the field. We shall look at the issue of the content of documentation in 13.3.2, followed by that of the social context of fieldwork in 13.3.3. (The following discussion is based on and incorporates Tsunoda 1998b, 2001f.)

13.3.2. Content of documentation

In order to adequately train field linguists – in order that they will be capable of producing an accurate and comprehensive documentation – it is important to pay attention to the following three aspects: well-balancedness of the program (13.3.2.1), general linguistics (13.3.2.2), and linguistic theory (13.3.2.3).

13.3.2.1. Well-balanced program

Obviously, the importance of a holistic approach (13.2.3, 13.2.4) can never be overemphasized, and this clearly indicate that, in order adequately to prepare students for fieldwork, we need to have a well-balanced program of linguistics – a program which provides "adequate training in all subfields of ... linguistics" (Craig 1997: 265). People often talk about, and sometimes only talk about, field method courses when discussing the training of fieldworkers. However, there is a limit to what a one-year course can do, and no lecturer – however dedicated and ingenious he/she may be – can accommodate in a one-year course all that are mentioned or referred to in 13.2.3 and 13.2.34. Therefore, it is necessary to have a well-balanced linguistics program which covers all branches of linguistics, from phonology to historical linguistics, listed in 13.2.3, as well as phonetics. Training in phonetics, e.g. observation and pronunciation of actual speech sounds, is indispensable for fieldwork.

A number of linguists argue that preparation for field work must include training in linguistic theory. This will be dealt with separately, in 13.3.2.3.

In addition, students need to be trained in related disciplines, particularly, anthropology, and preferably sociology as well (cf. Hinton 1994: 253; Sapir 1951: 161, 166).

Ideally, students should attend a field method course only after having studied the subfields of linguistics and also relevant neighbouring subject(s). That is, a field method course should be considered "the final touch" in the training of fieldworkers, incorporating and synthesizing what the students have studied in a wide range of classes listed above.

Thus far, we have looked at what might be called "traditional linguistics". Furthermore, as seen in Chapter 12 (12.2.3, in particular), linguists are required to assist language revitalization, which makes it important to include applied linguistics in the training for fieldwork on endangered languages, e.g. subjects such second-language learning and teaching (Grinevald 1998: 158; Hinton 1994: 253).

In Japan (and possibly in some other countries as well; cf. Dixon 1997: 133), there is a tendency among some linguists to focus on one single topic for research (cf. a narrow approach, discussed in 13.2.2), and such "highly specialized" linguists are considered "true scholars", while on the other hand those linguists who have a wide range of interests are regarded as "not decent" (in the words of a certain linguist). Unfortunately, there are many cases where this tendency is reflected in teaching; students are either encouraged to take a narrow approach or indoctrinated into taking that approach for granted and casting no doubt on its validity.

13.3.2.2. General linguistics and specific linguistics

General linguistics and specific linguistics may not constitute a clear-cut dichotomy, but they may be tentatively characterized as follows: general linguistics deals – or, at least, aims to deal – with languages in general, while specific linguistics is concerned with specific language(s). Thus, an account of structural changes observed in dying Dyirbal (8.2) is an instance of specific linguistics, while an overview of structural changes in language obsolescence (8.4) is one of general linguistics. An account of ergativity of Dyirbal in Dixon (1972) is an instance of the former, while Dixon (1994) on ergativity in general is one of the latter.

It is useful for a fieldworker to have a typological perspective (another instance of general linguistics), for which the writer would recommend Foley and Van Valin (1984) and Shopen (1985).

General linguistics and specific linguistics go hand in hand. Knowledge of general linguistics broadens fieldworkers' perspective and provides various angles from which to look at languages. In return, the results of research into specific languages will contribute towards the development of general linguistics, and again in turn this will be useful when investigating specific languages.

Students need to broaden their perspective by obtaining some knowledge on the general subject and on languages other than the one they are working on – preferably typologically different languages. For example, if the student is working on the case system of a certain language, he/she needs to read general works on case, such as Blake (1994b), and works on the case system of other languages.

In Japan (and possibly elsewhere as well) there seems to be apathy among some fieldworkers to general linguistics. Again, unfortunately, there are many cases where this is reflected in teaching; students concentrate on the language under investigation (on one single, narrow topic, for that matter), with no perspective of general linguistics.

13.3.2.3. Linguistic theory

A number of linguists argue for the importance of linguistic theory for fieldwork (e.g. Chelliah 2001: 163, Everett 2001: 166, Gil 2001: 125, Hyman 2001: 21, Mithun 2001: 52). Thus, Mithun (2001: 52) states: "Preparation for fieldwork must ... include a solid background in linguistic theory". However, as is the case with general linguistics, there seems to be apathy among some fieldworkers to linguistic theory. One sometimes hears the statement that fieldworkers need no theory. We shall look at this issue.

First, the term "theory". Many linguists, including those cited above, use this term without defining it. But one definition of theory is "scheme or system of ideas &c. held to explain observed facts &c." (*The Australian Pocket Oxford Dictionary* 1976). In the words of the late Stanley Starosta (p.c.) a theory is "a model of the realty". A theory may concern specific languages (an instance of specific linguistics), but most (or all?) proposed theories seem to purport to be applicable to languages in general. According to these definitions of theory, and also, as generally understood in the linguistic academia, the concept of phoneme and that of morpheme, for example, are products of particular linguistic theories, respectively. Examples of theories in the field of syntax include case grammar (Fillmore 1968), relational grammar (Cole and Sadock (eds.) 1977), and role and reference grammar (Foley and Van Valin 1984).

Now, we return to the apathy to linguistic theory. Contrary to the view that fieldworkers need no theory, all linguistic works involve one kind or theory or another (Pawley 1991: 15). Even those people who show apathy to theory, use the concept of, for example, phoneme, but this concept itself is taken from one phonological theory. Therefore, the view of those people who hold this apathy seems self-contradictory. Actually, by theory, they seem to mean certain theories that were developed in the USA during the latter half of the 19th century. But some of such theories, too, are useful for fieldworkers, as shown below.

Case grammar taught the writer the importance of recognizing the level of semantic roles (e.g. agent, patient, recipient, instrument) as distinct from cases and grammatical relations, while relational grammar points out the need to separate grammatical relations (e.g. subject, object) from cases (e.g. nominative, accuative, absolutive, ergative). Role and reference grammar shows the intricate interaction among semantics, morphology, and syntax. All these have helped to broaden the writer's perspective and consequently to improve the quality of his works on Australian Aboriginal languages (it is hoped!).

As is the case with general linguistics, knowledge of linguistic theories broadens fieldworkers' perspective and provides various angles from which to look at languages. In return, the results of research into specific languages will contribute towards the development of linguistic theory. As seen in 10.2.4.6-[2], Australian Aboriginal linguistics has made enormous contributions to linguistic theory (and general linguistics as well), and these contributions in turn have provided fieldworkers with a broader perspective. To sum up, theory and description go hand in hand (cf. Everett 2001: 166; Gil 2001: 125; Hyman 2001: 21).

There are, however, three important provisos. First, as noted in 13.2.2, "It is not appropriate to limit the record to data pertinent to issues of current theoretical interest" (Mithun 2001: 53).

Second, students should not be trained in just one kind of theory. They need to "be familiar with more than one theory or grammatical tradition and develop an awareness of the limitations of each" (Chelliah 2001: 163).

Third, as Dixon (1997: 133) and Nakayama (2001) emphasize, we should not distort a language under investigation in order to fit it in any particular theory. We need to have a broad and flexible perspective on theories.

13.3.3. Social context of fieldwork

A cursory survey of relevant works such as Grinevald (2001), David Wilkins (1992), and papers in Newman and Ratliff (2001b) suggests that most of field method courses concentrate on how to obtain data, and they do not prepare the students for the reality, namely, the complexities of the society that they encounter in the field. Furthermore, as seen in Chapter 12, the social context in which fieldwork is conducted has changed drastically during the last two or three decades. Gerdts (1998: 21) notes: "The good-old-days of popping in, doing some fieldwork, doing the analysis, going home, and publishing are gone forever". Consequently, usual field method courses are totally inadequate for preparing students for the fieldwork situation (cf. Grinevald 1998: 157). The above-cited works provide accounts of the "harsh" reality in the fieldwork situation that could not have been envisaged in a field method course. Specifically, "linguistics is not done in a political vacuum" (England 1992: 29; cf. also Dorian 1993b: 576). David Wilkins' (1992) account of his fieldwork is particularly painful, and, because of that, it is extremely revealing and useful. These issues dealt with by those fieldworkers should be incorporated into a field method course. They include the following, repeated from Chapter 12.

(a) Research is controlled by the community. For example, permission from the community is necessary in order to conduct fieldwork there.

(b) The linguist is required to benefit the community by means of the research results, e.g. by assisting with their language revitalization activities.

(c) Intellectual property rights must be respected. Thus, confidential and/or secret information should not be published.

(d) The linguist needs to write up the research results in a language which is accessible to the community members. For this purpose, students need to become sufficiently proficient in that language to be able to write in it.

(e) Ethical codes for research must be observed. Thus, individuals' privacy must be respected.

Nonetheless, the following should be added in connection with (c). As Hale's account of the secret style of the Lardil of Australia indicates (10.2.4.6-[2]), it

is important to record secret information – provided that approval is issued by the community. If such information is on the verge of disappearance, then it is the researcher's role to persuade the community members of the importance of its documentation (12.2.3).

The preceding discussions highlighted what may be considered the "harsh reality" of fieldwork. However, this is only one side of fieldwork, and in fact there is the other side to it, namely, the exhilaration that derives from it (Dixon 1997: 134). Therefore, a field method course should not discourage students from conducting fieldwork. On the contrary, it should encourage them to do so, for example, by mentioning the exhilaration and satisfaction that have been experienced by fieldworkers (Grinevald 2001: 301). Many examples are given in Newman and Ratliff (2001b). One of the examples from the writer's experience is the following. In the early 1970s, he worked on Warrungu and a few other languages of North Queensland, Australia. They became extinct when the last speakers passed away. More than a quarter century later, the last speakers' grandchildren started a movement to revive their ancestral languages. All the hardship that the writer had experienced during that fieldwork was obliterated when he was welcomed back with their remark: "We are grateful that you recorded our languages" (Stephen Walsh, a Biri person).

13.4. Summary of Chapter 13

Regarding documentation, a holistic approach needs to be adopted, paying attention to all aspects of the language and its socio-cultural background. The data should be as accurate and comprehensive as possible. Care must be taken in view of the precarious state in which the language is. The research results should be made available in the form of raw data (including audio- and videotapes) as well as in the form of analysis results, particularly, the triad (i.e. grammar, vocabulary, and texts). Concerning training of fieldworkers, linguistics programs need to be well-balanced, incorporating all the branches of linguistics, paying attention to general and theoretical linguistics as well. Ideally, students should be trained in neighbouring disciplines, such as anthropology. They also need to be prepared for the social reality of fieldwork, particularly for the situation where "academic theft" is no longer allowed.

14. Concluding remarks

The preceding chapters have looked at a wide range of issues that surround language endangerment and revitalization. There are, however, a large number of issues that have not been dealt with. One of them concerns the criteria for selecting languages for documentation. Dixon (1991a: 230) proposes that "we should aim to gather some information on languages from every language family and every branch of each family" (cf. also Dorian 1994b: 799). Nonetheless, as Dixon (1991a: 230) points out, "Priorities have to be set". Specifically, it has been suggested that criteria such as the following should be employed in consideration of the urgency for documentation:

(a) degree of endangerment of the language (Brenzinger 1999: 3; Krauss 2001: 34);

(b) quality and quantity of extant documentation of the language (Krauss 2001: 34);

(c) quality and quantity of extant documentation of the family or branch to which the language belongs (Brenzinger 1999: 7);

(d) genetic isolation of the language (Brenzinger 1998a: 96, 1999: 7; Krauss 1992: 8; cf. Dorian 1994b: 799);

(e) typological uniqueness of the language (Krauss 1992: 8, 2001: 34), and;

(f) feasibility of carrying out research (Brenzinger 1999: 8; Krauss 2001: 34).

Most of these criteria have to do with the "scientific value of the language" (Brenzinger 1999: 7). There is, however, one important criterion missing:

(g) the community's wish.

For an example, the writer is working on Wanyjirra, which used to be spoken immediately east of Jaru of Western Australia (he published a grammar on Jaru: Tsunoda 1981). Wanyjirra and Jaru are members of the same group, and they are very similar in terms of phonology, grammar, and vocabulary. In fact one of the tasks in work on Wanyjirra is to find out its differences from Jaru. In terms of (c), (d) and (e), it would be rated low in the degree of urgency for documentation. Nonetheless, the writer is working on it at the advice of the Kimberley Language Resource Centre: "We have your book on Jaru, so we would like you to work on Wanyjirra".

Furthermore, the preceding chapters have posed many problems to which no answer seems forthcoming. For example, language endangerment and language revitalization are very much functions of the socio-political environments, and this in turn involves political issues such as land rights and human rights, in-