CHAPTER 6

COMPREHENSION TESTING

6.0 Introduction

Sociolinguistic factors and lexicostatistic analysis provided an initial overview of the four Kuy dialects in Cambodia. The comparative phonological reconstruction of Proto-Kuy showed that the four dialects are very closely related, with few sound change rules. These approaches focus on vocabulary alone. By adding comprehension testing,[29] both types of analysis may complement each other, as Blair (1990:23) explains:

> Word lists and dialect intelligibility testing are used together to distinguish different dialect areas. One technique provides something the other lacks. Word lists provide information about the linguistic relationship between speech varieties insofar as these relationships are not blurred by borrowing. Dialect intelligibility tests help delineate the existing intelligibility networks. Both are necessary for a clear understanding of the situation in the region being surveyed.

The literature varies on the given percentage of lexical similarity at which comprehension testing is recommended. For example, Blair (1990:23) suggests that below 60% lexical similarity, speech varieties are dissimilar enough that they are considered different languages and no dialect intelligibility is required. However, he suggests that when lexical similarity is above 60%, intelligibility testing is needed to further clarify the dialect relationship. Other sources suggest a threshold of 70% or 75%. Exact percentages are not as crucial as relative comparisons. All of the Kuy speech varieties compare at 82% similarity or higher,

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[29] Note that the terms dialect intelligibility testing and comprehension testing are sometimes used synonymously. However, the testing methodology applied in this chapter (testing only a single narrative text from each dialect) is reliable only as far as testing the level of comprehension of the specific text used, not as an indicator of overall intelligibility.

well above the suggested thresholds; therefore, it can be assumed that comprehension testing is necessary.

This chapter presents the overall method of comprehension testing used among the Kuy dialects and the development of the particular tests used. The results of the comprehension testing are reported and analyzed.

6.1 Methodology

To test comprehension between dialects, Recorded Text Tests (RTTs) were used, based on methodology outlined in Casad (1974) and Blair (1990). In brief, this involves recording a text in a given dialect, making specific questions that can only be answered by listening to the story, recording those questions within the story, then playing the story for ten or more speakers of a different dialect, and asking them to answer the questions. Following this, the number of responses considered correct are tabulated and calculated as percentages. This gives a measure of the comprehension (at least of that particular story).

The texts used in Recorded Text Testing must be simple original narratives from a good speaker of the language variety. An ideal text is a 3-5 minute narrative which recounts a specific event or experience of the speaker (storyteller), preferably an experience unknown to those who will be tested. A text which covers a well-known event or a familiar folk tale introduces variables, such as the subjects being able to answer based on their own knowledge rather than by comprehending the text as told in the given variety, or even subjects disagreeing with the way in which the story was told. The text should also not be a story translated from another language. A translated text would be "artificially modified by the constraints invariably involved in a translation" (Blair 1990:33).

Recorded texts are transcribed and translated, and as many questions as possible are created, based directly on content in the text. The best questions (approximately 15) representing a wide-range of question types are selected, recorded and placed within the previously recorded text following the portion of

the text which provides the answer to the question. These are pilot-tested with at least ten native speakers from the same location and dialect as the storyteller, for validation of the text and to aid in the selection of the ten most suitable questions. The questions must be asked in the dialect of the subject being tested, to verify that the information in the text is being tested, not the ability to understand the question. Subjects may respond in any language they choose.

A brief sample story is given first, in which the tester may model the type of response required, in order to help those unfamiliar with this type of questioning procedure. Following the sample text, if the person being tested appears successful and capable of continuing, the text from the subject's own dialect is tested (called a Home Town Text, HTT). If the subject scores 70% or higher on the HTT, then texts from other varieties can be tested; if the subject scores lower, the subject is not suitable for further testing as the results are not valid. Subsequent texts should be ordered with those most similar first, and the more distant varieties later.

6.2 Development of Recorded Text Tests

Recorded Text Tests (RTTs) were developed only in Kuy Ntua and Kuy Ntra dialects. It was preferred to test all four dialects; however, since the dialects spoken in Chranaol and Krala Peas do not appear to be widely used, it was not possible to find the twelve or more fluent speakers required for the development and testing of an RTT.

Several brief personal narrative texts were collected in both Prame (Kuy Ntua) and Rumchek (Kuy Ntra) villages. In Prame, the "Resin" text was selected as the most appropriate, a single event described in 3.5 minutes, with a variety of activities, and sufficient description for creating comprehension questions. The "Resin" text was elicited from a 40-year-old female speaker of Kuy Ntua. The text describes a trip the speaker took on the back of a truck carrying bags of resin, with

several problems encountered during the trip, such as the truck getting stuck and a wheel falling off the truck.

In Rumchek, the "House" text was selected. This 3-minute text was elicited from a 42-year-old male speaker of Kuy Ntra, who spent all but four years of his life in Rumchek village. The text describes a series of three significant incidents illustrating the difficult life of the speaker and his family, including his house burning down, his child dying from a fever, and his wife nearly dying after becoming sick while working in the rain.

A third text was prepared from a Kuy village in Thailand, called Samrongthap (in Samrongthap district, Surin Province).[30] This village was selected on the basis of an orthography and written materials having been developed (based on Thai script) for this speech variety, as well as by personal contact available for assistance in developing the RTT. The "Leaf" text was elicited from a 66-year-old woman. The text describes a trip taken by three villagers from their home to another village to buy mulberry leaves in order to raise silkworms. On the journey, while crossing a stream, one of the villagers fell in, and another rescued her.

Initially, about thirty questions were developed for each text. The best fifteen or so of these were selected, maintaining questions from a variety of semantic domains and sufficient spacing throughout the text. These fifteen questions were then tested on native speakers of the speech variety in which the text was given, and the ten best questions (those most often accurately answered by native speakers) were retained. These ten questions were then translated and re-recorded into the variety of Kuy where the text was to be tested. Thus in Prame, ten speakers of Kuy Ntua were asked to listen to the "Resin" story in their own variety, to the "House" text in Kuy Ntra, and then to the "Leaf" text in Kuy of

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[30] The Kuy spoken in Samrongthap (Thailand) has approximately 79% lexical similarity with Kuy Ntua from Prame and 81% similarity with Kuy Ntra from Rumchek.

Samrongthap in Thailand. The questions they heard and responded to were all asked in Kuy Ntua, recorded by other residents of Prame. Likewise, in Rumchek, ten speakers of Kuy Ntra were asked to listen to all three texts, responding to questions asked in Kuy Ntra of Rumchek. Samrongthap speakers listened only to the "Leaf" text. The responses in Prame and Rumchek were written in Khmer by a Kuy assistant, and later translated into English, though the Kuy answers were also monitored for consistency. The accuracy of a response was based on responses given by native speakers of that variety to the same question.

6.3 Results and analysis

In interpreting RTT results, three pieces of information are necessary. The first is the average percentage (shown as *Avg*, which is the mean or average of all the subjects' individual scores on a particular text at a particular test site). The second is a measure of how much individuals' scores vary from the community average, called the standard deviation (shown as *Sd)*. The third important piece of information is the size of the sample, that is, the number of people that were tested (shown as *No*).

Table 108 shows the results of Recorded Text Testing of the three Kuy texts.

Test points	Reference points	Resin story (*Ntua*)	House story (*Ntra*)	Leaf story (*Thai Kuy*)
Prame *(Ntua)*	*Avg*	**96**	87	50
	Sd	·7	14.4	16.8
	No	**10**	10	10
Rumchek *(Ntra)*	*Avg*	87.5	**85**	28
	Sd	12.7	**8.5**	16.2
	No	10	**10**	10
Samrongthap *(Thai Kuy)*	*Avg*			**93**
	Sd			**12.7**
	No			**10**

Table 108. Results of Recorded Text Testing

The bold indicates the scores subjects received on the text in their own dialect. Ideally, subjects should score 100% on a test of a story in their native speech variety. Subjects who score 70% or less in their variety should not be tested on other varieties (Blair 1990:79). However, since the translation of responses from Kuy to Khmer to English did not occur until after testing was complete, it was not evident during the testing that some subjects did not score high enough to continue. This occurred with two subjects in Rumchek (70% each) and one subject in Samrongthap (60%). Once these subjects' scores are removed (since their scores on subsequent tests are considered invalid), the average and standard deviation can be recalculated, as in Table 109.

Reference points / Test points		Resin story (*Ntua*)	House story (*Ntra*)	Leaf story (*Thai Kuy*)
Prame *(Ntua)*	*Avg*	**96**	87	50
	Sd	**7**	14.4	16.8
	No	**10**	10	10
Rumchek *(Ntra)*	*Avg*	87.5	88.8	31.3
	Sd	12.8	3.5	14.6
	No	8	8	8
Samrongthap *(Thai Kuy)*	*Avg*			96.7
	Sd			5.6
	No			9

Table 109. Adjusted results of Recorded Text Testing

However, the number of subjects then falls below ten, so that the results are less reliable. The timing of the testing was such that many village residents were away from the village working their fields, and it was difficult to find a sufficient number of suitable subjects.

6.4 Summary

Notwithstanding errors in development of the test, the results show a generally high degree of comprehension (87%) between Kuy Ntra and Kuy Ntua. This is higher than the comprehension the speakers of these varieties expected. There was

a much lower level of comprehension of the Kuy spoken in Samrongthap of Thailand (50% by Kuy Ntua speakers, 31% by Kuy Ntra speakers).

Ideally, to assist in answering the research question about the relationship between different varieties of Kuy spoken in Cambodia, it would be necessary to expand the scope of the comprehension testing. In the current research, it was not practical to test more than two locations, since the other varieties, Kuy Mai and Kuy Mla, did not appear to have sufficient vitality (i.e. the required 12-15 speakers could not be found). If other villages are found with more speakers still currently using Kuy Mai or Kuy Mla, stories and questions should be developed within these varieties.

Also, testing could be done within varieties. For instance, the "Resin" text recorded in Prame could be tested in other Kuy Ntua locations, and the "House" text recorded in Rumchek could be tested in other Kuy Ntra locations, to test the level of comprehension within dialects.

The results found may reflect a difference in the level of difficulty of the text, the types of questions used (2-3 of the questions required the same vocabulary item as a correct response, which may bias the results), the percentage of Khmer borrowed words, the topic of the text, or familiarity with the text stories. Further experience in developing and testing recorded text tests would improve the validity of the results.