We All Hear In Our Own Languages![1]

Ed Brye*

Luke 24 and Acts 1-2 align the Holy Spirit's purpose given to empower witnesses locally and globally, through language, to effect the type of result from the audience described on the Day of Pentecost as well as Rev. 5:9. A missiological viewpoint that sees how the precedent of the Pentecost Day outcome i.e. "people hearing in their own language" serves as a pattern for effective communication especially in a multilingual world like ours where there are 7000 languages spoken, many yet unwritten. The Pentecost Day audience was multilingual, understanding the language used in the Jewish community in Jerusalem, yet also speaking *their own* languages (their mother tongues). The case study later in this paper provides the methodological framework for surveying unreached people and their unwritten languages that brings a similar response "We all hear in our own language…" which has enabled missionaries to cross language and cultural barriers to fulfill what was stated in Luke 24 & Acts. 1:8.

Andrew Walls views the Son of God *becoming* also the Son of Man (John 1:14) as a divine act of translation as divinity is translated into humanity; and, ever since, the Word of God has been translated into the words of people in a succession of translations (1996, 27). Lamin Sanneh (2003, 97–98) observes that Christianity has always been a *translated faith* "making God's truth compatible with human understanding" irrespective of language (2003, 103-104).

It goes without saying that the obedience to Jesus' command to preach the gospel to *every* person (Mark 16:15) and to disciple the nations (Matt. 28:19) requires at least a minimal level of communication competence in the chosen language. Although Apostle Paul specified no particular language for this when writing to the Romans (Rom. 10:14-15), because the dominant language of the Roman Empire was Greek, Christians could and therefore would use it for communicating the gospel (Tucker 2004, 21-22). Paul did,

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however, acknowledge the existence of other languages (Acts 14:8-20a; 21:37-40) and the importance of making oneself understood (1 Cor. 14: 9-10).

Apostle Paul, of course, knew how 'other tongues' were intelligible to the listening audience of the Day of Pentecost (Acts 2:4) in what Craig Keener states (2012, 780) was a multicultural emphasis introduced in Acts 1:8 in which God's own message (like prophets of old, 2:17-18) crossed cultural boundaries (2:4-11). What could better symbolize the power to cross such barriers than the ability to speak in languages one had not learned (Keener 2012, 804-805, 821; Gary McGee 2010, 61-76)!

An Era to the Unreached Begins

The Bible translation trajectory spanning two millennia (Noss, 2007, 24) started to spike sharply in 1917 after William Cameron Townsend went inland into Guatemala to sell Spanish Bibles. There, he discovered a people numbering 200,000 who spoke only their own *unwritten* language, and most didn't understand Spanish. During the twelve years it took him to learn the language, create an alphabet, study the grammar, and translate the New Testament into Cakchiquel his close colleague Leonard Legters surveyed other ethnic minorities and languages for their "distribution, numbers, characteristics, and strategic centers" (Stevens, 1995, 48). Thanks to his friendships with individual Cakchiquel men, especially Francisco "Frisco" Diaz, Townsend was inspired to translate God's Word into *other* languages as well. When naysayers urged him to forget low status groups or those that looked like they would die out, he took guidance from Matt. 18:11-12 to leave the ninety-nine and to search for the lost one (Townsend 2008, 327).

His concern for the lost prompted his startup of Camp Wycliffe, named in memory of John Wycliffe who had translated the entire Bible into English in 1383, in Sulphur Springs, Arkansas to train and send out candidates. In 1934, he founded the Summer Institute of Linguistics (SIL) for reducing unwritten languages to writing and translating the Scriptures. Townsend's focus on language barriers and Donald McGavran's focus on social barriers within such language groups marked what Ralph Winter (1981) recognized as the onset of the Unreached Peoples Era of Protestant missions. SIL's "sister" organization, Wycliffe Bible Translators, was founded eight

years later to relate to the Christian public about the field work. Each organization pushed inland in faith, after the pattern of Hudson Taylor's China Inland Mission (Aldridge 2012, 4).

Developing Task Assessment

In 1951, SIL compiled an annotated list of 40 groups into an "Ethnologue" in an effort to start identifying *all* language groups. By then, Morris Swadesh (1950) had assembled a core list of 100 words that he believed were found in all cultures (Murray, 1998, 29), and in 1956 Sarah Gudschinsky (1956) devised a method for inspecting word pairs to identify 'cognates.' Could knowing the similarities between word pairs be useful for predicting intergroup communication between the speakers of the languages from which the compared words were taken? In the 1960s and early 1970s an SIL team in Mexico set out to develop an intelligibility test (Bergman 2005, 4), culminating in Eugene Casad's *Dialect Intelligibility Testing* (1974).

The number of languages annotated in the *Ethnologue* continued to increase, yet not all had been identified. At the SIL International Conference in 1981 there was eagerness and resolve to see task assessment completed. Questions were posed the next year at a sociolinguistics conference about how peoples' understanding or bilingual speaking proficiency in a given language might influence their preferences to use Scripture. In 1984, the first survey course was launched to provide training about comparing word lists, testing intelligibility, and asking questions (Bergman 2005, 5). Ted Bergman, the task assessment coordinator, started to compile articles for a *Survey Reference Manual.* Taking Joseph Grimes' 1986 article "Area norms of language size," he listed (2001) by continent, population thresholds below which language groups may be considered threatened: Africa (10,000), Asia (3,000), Australia (30), North America (1,000), Pacific (250), and South America (300). In 1989, the *Survey Reference Manual* was presented at SIL's inaugural International Language Assessment Conference (ILAC) on the theme of decision-making. Other threshold criteria were established for comparing word lists (70% phonetic/lexicostatistical similarity), intelligibility/understanding (75%), and bilingual proficiency or speaking ability (Foreign Service Institute proficiency level 3) (Bergman 2005, 8-9). Also, as Barbara Grimes (1990, 41) highlighted, people could not be considered 'reached' so long as they didn't have the Scriptures (2 Tim. 3:16-17).

In 1999, both Wycliffe Bible Translators and SIL adopted Vision 2025 to see the Bible translation process begun in *every* language group, where needed, by that year. At the time, nearly 350,000,000 people spoke roughly 3,000 Bibleless languages. Townsend's "one in 99" was 5% of the world's population!

Case Study: East Beboid Cluster

By now, my wife, Beth, and I were team leaders of SIL's survey department in Cameroon, a sub-Saharan country of 280 languages on a continent in which Africans comprise 12.9% of the world's population yet their languages make up 30.2% (2,146) of the global total (Lewis, Simons, and Fenning, 2014, 31). Our department split into two teams, one going to West Beboid and the other consisting of Cameroonian linguist Dr. Domche, my wife, and me to East Beboid.[2]

The Rapid Appraisal Survey

The Rapid Appraisal (Bergman 1991, Stalder 1996a, 1996b) was the method of choice for *quickly* assessing key variables: languages and dialects, people's usage of these, and relative group viability about whether people would continue to use their language(s) into the next generation. Preliminary estimates of dialects and languages were obtained by asking:

1. Where do people speak *exactly* as you do here (= same dialect of the same language)?
2. Where do people speak *like* you (Chambers and Trudgill 1998, 3-7; Edwards 1994, 23; Wolfram and Fasold 1974, 34) (= different dialect, but same language)?
3. Where do people speak a 'talk' that is *not* your talk at all? (= different languages).

There was one main *lingua franca*, Pidgin. By definition, it had no *native* speakers in the cluster although people used it when no other language was shared, but people's degree of speaking proficiency varied by the type and frequency of interaction (Arends, Muysken, and Smith 1994, 3). Two other languages were English and French, both official languages for educational and governmental purposes, but both were acquired primarily in schools. As a consequence of school attendance being so low in the

subsistence farming communities, speaking proficiency in either language would be relatively low. We followed the hypothesis of Calvin Rensch (1992, 71) that no testing would be needed since no second/acquired language was used in the home domain where children were mother tongue speakers of it. The fact of the matter was that the mother tongue was spoken for *all* topics *everyday* by *all* generations and, as expected, it was preferred at home. Evidently, sufficient numbers of mother tongue speakers in each East Beboid community were ensuring the ongoing use of their mother tongue. Even with migrating populations settling into East Beboid villages, newcomers typically learned the local languages. Together, these factors pointed to a strong ethnolinguistic **viability** that there would be a critical mass of speakers who would continue to use their mother tongue for communication from one generation to the next.

The Rapid Appraisal was a quick way to get at essential facts, yet crossing all language barriers was necessary so that people of *every* tribe and *every* tongue might one day have a strong, powerfully evangelizing church (Winter 1999, 345). A more in-depth survey was needed.

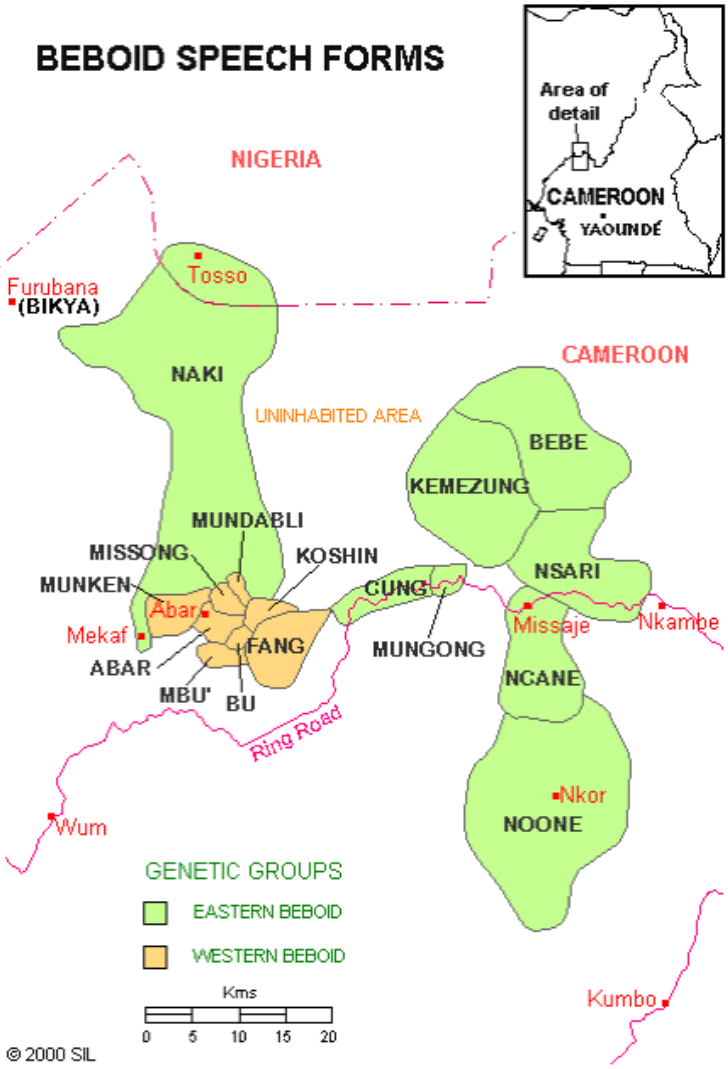


Figure 1: Beboid Language Boundaries

The Dialect Survey

Douglas Boone (2005, 13-17) cites three criteria for grouping speech varieties: *linguistic (structural congruence)* like shared words and phrases, *sociolinguistic (shared ethnolinguistic identity)* in which speakers consider themselves one people with others due to intergroup affinity; and *communication ease* meaning 'adequate' understanding of one another's speech. To estimate linguistic similarity, our teams elicited a 126-word list (Dieu and Renaud, 1983, 132–133) in select villages of each language area throughout Beboid, then compared them. Below, language names in parentheses follow village names.[3]

Jama (Bebe)	Jama (Bebe)
98 Sabongida (Bebe)	2.3 Sabongida (Bebe)
75 76 Cung (Cung)	8.4 8.3 Cung (Cung)
81 83 79 Mashi (Naki)	9.0 8.5 9.3 Mashi (Naki)
85 84 75 87 Kwei (Kemezung)	7.2 7.3 8.1 7.8 Kwei (Kemezung)
86 85 75 86 99 Dumbo (Kemezung)	7.3 7.4 8.3 8.0 2.8 Dumbo (Kemezung)
83 83 74 82 83 83 Kamine (Nsari)	8.1 8.2 8.5 8.9 7.9 7.9 Kamine (Nsari)
83 83 74 82 83 83 100 Akweto (Nsari)	8.1 8.2 8.5 8.9 7.9 7.9 0.0 Akweto (Nsari)
78 79 83 80 82 82 86 86 Mungong (Mungong)	8.4 8.4 8.2 9.1 8.1 8.2 8.0 8.0 (Mungong (Mungong)
78 78 83 77 80 79 84 84 94 Kibbo (Ncane)	8.3 8.3 8.1 9.7 8.1 8.3 7.9 7.9 4.4 Kibbo (Ncane)
78 78 83 77 80 79 84 84 94 98 Nkanchi (Ncane)	8.3 8.3 8.1 9.7 8.1 8.2 7.8 7.8 4.4 1.6 Nkanchi (Ncane)
78 78 80 77 79 79 84 84 91 96 98 Bem (Ncane)	8.3 8.3 8.1 9.7 8.1 8.3 7.8 7.8 5.3 3.5 3.2 Bem (Ncane)
71 72 75 75 76 75 79 79 89 87 88 90 (Noone)	8.6 8.6 8.5 9.9 8.5 8.5 8.3 8.3 6.3 6.0 6.2 5.5 (Noone)
Lexicostatistical Similarity Percentages	Variance (range of error) Matrix

Figure 2: Lexicostatistical Similarities & Range of Error (East Beboid)

Every word pair compared fell *above* the 70% threshold of similarity (Bergman, 1990, p. 8.1.5-8.1.6), meaning that the languages or dialects from which these compared words came could be grouped together, at least initially. But this was ruled out, once it was discovered that interviewees' claims to understand another group only occurred when the shared lexicostatistical similarity of their words lists fell within the 80-95% range, i.e. well above the 70% threshold. It was now necessary to verify these claims of understanding by carrying out **intelligibility testing** using Recorded Text Testing (RTT). This involved recording an autobiographical story roughly three minutes in length from each of the groups with populations over 2,500, then dubbing in a comprehension question after each 15-second segment in the test community's language. Then, the finished recording was played to each person of the language group being tested. The percentage of correctly answered questions represented an *estimate* of the subject's general understanding of the test language. Group averages follow (Brye and Brye, 2004, 6).

Comprehension of:	By speakers of:	Average	StdDev.%
Noone	Ncane (in Kibbo)	79%	17.1%
Noone	Ncane (in Nkanchi)	78%	12.2%
Noone	Mungong (in Mungong)	75%	Group RTT
Noone	Nsari (in Kamine)	31%	109.9%
Noone	Nsari (in Akweto)	30.5%	82.0%
Ncane	Mungong (in Mungong)	100%	Group RTT[4]
Ncane	Noone (in Din)	92.5%	7.9%
Ncane	Noone (in Nkor)	90.8%	11.0%
Ncane	Nsari (in Kamine)	85%	6.6%
Ncane	Nsari (in Akweto)	82.5%	21.3%

Ncane	Bebe (in Bebe-Jama)	66.7%	17.1%
Ncane	Bebe (in Sabongida)	57.1%	35.2%
Ncane	Kemezung (in Dumbu)	54.2%	34.6%
Nsari	Bebe (in Bebe-Jama)	82.7%	10.88%
Nsari	Ncane (in Nkanchi)	63.6%	19.6%
Nsari	Ncane (in Kibbo)	60%	Group RTT
Nsari	Ncane (in Mungong)	60%	Group RTT
Nsari	Kemezung (in Dumbu)	55.9%	22.5%
Nsari	Bebe (in Sabongida)	45.4%	25.4%
Kemezung	Bebe (in Bebe-Jama)	76.7%	16.6%
Kemezung	Bebe (in Sabongida)[5]	76.3%	23.6%
Bebe	Kemezung (in Dumbu)	84.1%	18.6%

Figure 3: Recorded Text Testing of East Beboid Languages with populations >2,500

Two types of intelligibility are inferred from these figures. *Inherent* intelligibility is a measure of understanding attributed to linguistic similarities inherent in both the speech of the recorded text and that of the language of the person being tested. *Acquired* intelligibility, on the other hand, is a level of comprehension achieved from *learning*. Yet, the distinction between the two is demonstrated by the test scores. When members of a population possess an *inherent* intelligibility of a particular language, their individual scores of a test of understanding that languages are all fairly similar and cluster together. But scores of individuals who are learning a language vary more widely based on their personal exposure. For example, a pattern of scores that results in a standard deviation of <15% with scores clustering fairly closely together suggests *inherent* intelligibility, whereas a wider standard deviation indicates the likelihood of *acquired or learned* intelligibility (Barbara Grimes, 1987, 50). Scores are also interpreted by applying a *threshold* of 75% for marginal understanding and 85% (Joseph Grimes, 1995, 22) to suggest that comprehension may be high enough for adequate communication, especially with a <15% standard deviation.

Ethnolinguistic identity, the sense that one's people is unique from any others, interfaces with 'positive intergroup attitude.' The findings about this are summarized in Appendix 2. General attitudes are initially explored by simply asking each individual tested about what is known of the people whose speech was heard on the recording, where they are from—shared origins, ancestry or customs. Another approach, but one not used by us on this trip, was the *matched-guise* method by Lambert, Hodgson, and

Fillenbaum (1960, 44-51) which involves asking persons to hear a recording of two speakers of two different languages or dialects. Four or five sentences are heard of identical content about a non-controversial topic. The differences in the evaluation represent attitudes associated with the particular speech of each of the speakers.

The Multilingualism Survey

Missiologically, multilingualism surveys are important for exploring if a people could access the Gospel and God's Word in a language *similar* to their own or another geographically near. Assessments are made of *bilingual proficiency*, *ethnolinguistic vitality*, *language use patterns*, and peoples' *attitudes* about languages and the people who speak them.

No **bilingual proficiency** testing had to be carried out in East Beboid, due to the findings from the Rapid Appraisal survey, but a summary of the method follows here. Bilingual proficiency is measured with the Reported Proficiency Evaluation (RPE) and Sentence Repetition Test (SRT) formulated by Radloff (1991). The RPE involves asking subjects to state what they "can do" from a list (Quakenbush, 1988, 11) of situational communication tasks. The degree to which interviewees claim to perform the listed tasks may correspond to their actual speaking proficiency. The RPE is followed by the SRT, which involves playing a recording of 18 sentences of increasing length and complexity to each tested individual, who then tries to repeat each sentence heard. Hatfield, South and Showalter (2007) demonstrate that the SRT differentiates level 3 on the Foreign Service Institute and International Language Roundtable[6] scale of speaking proficiency which has been considered the minimum threshold for effectively using materials, like Scripture.

Ethnolinguistic vitality is reflected by the presence of one generation using its language to communicate with the next. This is probed by asking if it is being used in the *home* and if *parents transmit* it to their children (Lewis and Simons 2010, 116-117). As mentioned already, it was learned during the Rapid Appraisal survey that the mother tongue was used by all generations to talk about all topics, every day. If, however, parents had failed to use the language with their children then this might have indicated a shift of usage toward *another language*. Shift can result in a decline in population of the

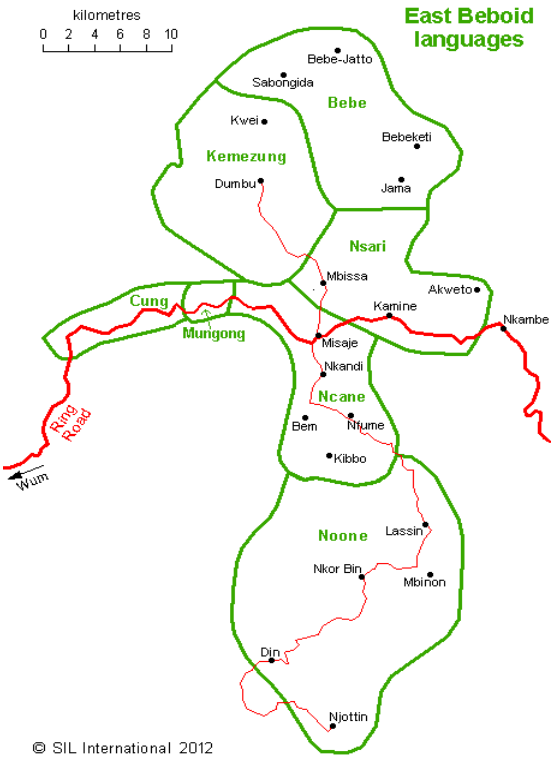
language group, potentially endangering its vitality and viability, estimated by population thresholds below area norms (Bergman 2001; Grimes 1986).

Language use patterns included using Pidgin when communicating with others whose languages they did not adequately understand. But, as already shown, mother tongue use trumped Pidgin as well as English and French.

Attitude studies help to identify how people view the personal character and the social status of speakers of other languages, such as with the matched-guise method described above. Although attitudes are not observed directly, their impact on behavior suggests they can be *indirectly* explored by identifying various motivations for actual language use patterns (Karan 2014). Almost always, motivations for having one's mother tongue in writing is tied to cultural preservation, whereas acquiring and using English and French and even Pidgin is linked to the desire for educational and employment opportunities.

The Extensibility Survey

The extensibility survey is used for estimating how far to a periphery that materials might be used. This occurs when a language into which the Scriptures and other discipleship materials are (being) translated is geographically near and/or linguistically related to languages or dialects with no such materials translated. An effective entry strategy involves starting Bible translation in one language, like Noone, and then extending its usage (Sadembouo 1990) to nearby ethnolinguistic communities. *Could* others adequately understand Noone in which the Scriptures were to be translated? Would they *likely* be *willing* to use the translated Scriptures in *any* language that they adequately understood? Noone was the only Beboid language in which plans were afoot to start Bible translation. But findings from assessing both comprehension and attitudes ruled out the possibility of *direct* extensibility from Noone to any other East Beboid language. As with grouping procedures explained in the dialect survey section above, *estimating* potential extensibility involved examining the combination of self-reported claims of being able to understand another language, lexicostatistical findings, intelligibility scores, and ethnolinguistic identity indicators.



East Beboid Language Boundaries and Major Villages

From Assessments to Assignments

Findings pointed to the conclusion during a task assessment committee meeting that there were two sub-clusters of three languages each within East Beboid, in addition to the Noone language to the south. A decision was reached by SIL-Cameroon after consultation with linguists from the University of Yaounde, the Cameroon Association for Bible Translation and Literacy (CABTAL) and National Association of Cameroonian Language Committees (NACALCO), to allocate linguists/translators to Dumbu (the larger of two Kemezung villages) to oversee the start of work in Kemezung, Bebe, and Cung and to Nfume (a Ncane village) for the work in Ncane, Mungong, and Nsari. After the New Testament Noone translation was completed in 2011, it became the source text for translation into the other East Beboid languages. A translation center was constructed in the cluster’s geographically central town of Misaje, which also became the cluster’s new name. Today, four mother tongue speakers *per* language are translating the New Testament into each of their respective languages with a projected completion of 2020.

People out of every tongue, tribe, and ethnicity whose languages were unwritten are being reached throughout the cluster.

Missiological Eschatology – toward finishing the task

Since the adoption of Vision 2025 in 1999, the number of Bibleless language groups worldwide has dropped nearly 1,200, down from over 3,000. God's Word is now in 2,883 of the world's more than 7,000 languages, and translation is ongoing in nearly 2,200 languages. Yet there's more to do. Likely, Bible translation is to begin in another 1,860 language groups spoken by a total of an estimated 180 million people (Wycliffe statistics, October 1, 2014),[7] roughly 2.5% of the world's population.

The following writing systems statistics indicate where known unwritten languages are located as well as some for which more information is needed. (Script Source):

	Africa	**Americas**	**Asia**	**Europe**	**Pacific**	**Total**
Living Languages	2,138	1,064	2,301	286	1,313	**7,102**
Written	1,118	637	1,079	191	636	**3,661**
Unwritten	333	76	242	14	54	**719**
No information	662	319	945	41	619	**2,586**
Sign Languages	25	32	35	40	4	**136**

Assessment is to be made of much of this.

Crossing the remaining language barriers of unreached peoples is a work in progress. Yet, the encouraging picture (Rev. 5:9) of an assembly of worshippers out of every tongue, tribe, and nation is a vivid reminder of the sure outcome.

Fortunately, applying established qualitative and quantitative data-collecting methods for surveying peoples and their languages has proven an effective standard for informing decisions for starting the translation process. The missiological call of God which is Spirit-guided and Spirit-led includes a strategic component for the Great Commissioning referred to in Matt. 28:16-20. The fulfillment of Rev. 5:9 is predicated on the Spirit's empowerment and the appropriate labor of strategic deliberation. In order to

obey the Lord's command to preach the gospel to every person and to disciple the nations with a view to including people out of every tongue and tribe and nation, it is necessary to survey people and their languages, their understanding and speaking proficiencies in these same languages in order to assess their communication potential. People can accept the gospel and grow in the Scriptures, only if both are translated in a language in which they communicate.

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Appendix 1: Four Common Sociolinguistic Field Realities

Simons and Bergman 2004; Brye 2015

Situation	**Research Question**	**Survey Type**	**Methods, Indicators**
Too little is known about *people* and their *languages* in a geographical region to be able to start strategizing about translation.	What is the general sociolinguistic situation in a specific geographical region?	Rapid Appraisal	Secondary/prior research Interviews with informed insiders about peoples' *social* and *language* situation, usually within the confines of the boundaries
In a region, distinct yet related languages or dialect varieties *may* be spoken—some different enough from one another to block communication between speakers, while others are not.	How might speech varieties in a region be grouped (in terms of linguistics, group affinity, and communication potential)?	Dialect	Lexicostatistics Intelligibility tests Interviews, assessing ethnolinguistic identity (We are "one" people!) with matched-guise or post-test questions
Many (or all) people in a geographic area *may* speak a Language of Wider Communication (e.g. "trade" language, *lingua franca*) *to some degree* for talking with native speakers whose language(s) they do not adequately understand.	Can people of a speech community understand a Language of Wider Communication? If so, how well? (Can they understand and access the spoken Gospel and any translated scripture in this language?)	Multilingualism	Bilingual Proficiency Tests Questions about: ethnolinguistic vitality (Is everyone using the language every day for everything?), language use patterns, and attitudes (matched-guise and post-test questions)
People of a speech community lack oral or written materials in their language. But translated Scripture is already (or becoming) available in a language that is geographically near or linguistically related to their own.	Can people of a speech community be served by translated Scripture and other materials that are (becoming) available in a language geographically near or linguistically related to their own?	Extensibility e.g. of Noone to other languages of the Cluster	1. Comprehension *(Able to understand a language?)* 2. Language Attitudes *(Willing to use a language they understand?)*

Appendix 2: Findings

Noone vs. Ncane

- Noone (25,000) is the largest of the seven East Beboid languages (and larger than any Beboid language), but, at the time of our research, it was geographically separated from these languages. Ncane, on the other hand, was the most geographically central language, and it appeared to be the one best understood by other language groups based on RTT comprehension scores. However, group interviews in Ncane revealed an unwillingness (resistance) to be included in a Noone language project.

Mungong

- Comprehension: Intelligibility: 100% comprehension of the Group RTT of the Ncane text. Interviewees claimed to understand the languages around them with an especially "high" level of comprehension of Noone, yet scored only 75% on the Group RTT of the Noone text while scoring 100% on the Ncane Group RTT. (Lexicostatistical similarity: 93% with Ncane, 89% with Noone.)
- Attitudes: The Mungong group interview initially revealed a greater identification with Noone-speaking people. But after listening to both Noone and Ncane (RTT) texts, Mungong subjects instead affirmed their greater affinity toward Ncane.
- Conclusion: Mungong could be included with Ncane, or perhaps with Noone.

Nsari

- Comprehension: Intelligibility: 82.5–85% score on the Ncane RTT comprehension text, but only 30.75% of the Noone text.
- Attitudes: Positive toward Ncane.
- Conclusion: Nsari probably could be included with Ncane.

Kemezung

- Comprehension: Intelligibility: 84.1% correct response to the Bebe text comprehension questions.
- Attitudes: Positive toward Bebe-speakers, but reluctant to be part of a Bebe project.

Bebe

- Comprehension: Intelligibility: 76.3% and 76.6% (marginal) comprehension of the Kemezung text. Wide range (45.4%, 82.7%) of comprehension of the Nsari text is likely due to the divergent proximity of the two Bebe villages to Nsari villages as well as of the limited opportunity for people from the eastern-most Bebe village of Jama to be in contact with Nsari-speakers.
- Attitudes: Positive toward the Kemezung language and its speakers, also toward Nsari.

Cung

- Cung shares >70% lexicostatistical similarity with each of the other East Beboid languages. But a significant population of Bum-speakers residing in Cung means that Cung interviewees characterize their village as "mixed".

Naki

- Naki shares >70% lexicostatistical similarity with all other East Beboid languages, but is geographically distant from East Beboid and separated from it by a vast uninhabited area.

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1 Adapted from "Surveying Unreached Peoples and their Unwritten Languages: assessments and case study" presented at the annual national meeting of the *Evangelical Missiological Society* on September 20, 2015. Dallas, Texas.

[2] The Beboid cluster consists of the West Beboid cluster with languages Naki (3000), Bu (100), Missong (300), and Koshin (900), and the East Beboid cluster is comprised of Noone (25,000), Ncane (15,500), Nsari (7000), Mungong (1200), Bebe (2500), Kemezung (4500), and Cung (2000).

[3] Several lists were re-elicited in 2011 and posted at http://www.rogerblench.info/Language/Niger-Congo/Bantoid/Beboid/General/Beboid%20composite.pdf.

[4] Cultural demands of particular test situations required the RTT to be adjusted for groups, when a population's multilingual experience was believed to be fairly uniform, when taboos existed about an individual being alone with outsiders during testing, when persons were unaccustomed to answering direct questions, or when stigma was associated with being asked direct questions (such as before a scolding).

[5] Another *cultural adjustment* was made because, rarely, a subject with a good understanding of the test language would summarize the entire recording without answering the comprehension questions. Tested individuals' natural tendency to tell what they had just heard rather than to wait to answer direct questions later precipitated a modification of the RTT by Angela Kluge called the RTT retelling method. See http://www.silinternational.net/silewp/2007/silewp2007-006.pdf

[6] See http://www.govtilr.org/skills/ILRscale2.htm, about this scale of the Interagency Language Roundtable (*ILR).* http://www.govtilr.org/ILR_History.htm

[7] http://www.wycliffe.net/statistics