CAN A LANGUAGE WITH MILLIONS OF SPEAKERS BE ENDANGERED?

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Abstract

The dialogue on language endangerment worldwide has largely focused on languages with small speaker populations, in line with Krauss's (1992) prediction that any language with a speaker population of less than 100,000 is at risk. The relationship between population size and language vitality is particularly relevant in the Indonesian context, where over 700 local languages have speaker populations that range from single digits to tens of millions of speakers. This paper considers the role of size in determining the fate of these local languages, against the backdrop of the highly successful development of Indonesian as a national language. Using Javanese as a case study, we show that even a language with over 80 million speakers can be at risk, a trend that has serious implications for all of the languages of Indonesia. Although a large population may signal a greater likelihood for official recognition and a more diverse speaker population that is less likely to simultaneously shift away from the L1, size alone cannot predict whether robust intergenerational transmission is occurring. Rather a clearer understanding of the demographic, sociolinguistic, and attitudinal factors that lead to individual and community decisions about intergenerational transmission are essential for assessing risk of endangerment.

Keywords: language shift, language endangerment, vitality

ISO 639-3 language codes: ind, jav.

1.   Introduction

The discussion on language endangerment worldwide has focused primarily on languages with very small speaker populations and decreasing numbers of young speakers, partly following Krauss's (1992) prediction that any language with fewer than 100,000 speakers is at risk. This problem is particularly acute in Indonesia, where 90% of Indonesia's living languages have fewer than 100,000 speakers (Lewis, Simons and Fennig 2013). The problem may be even bigger than we think. Rapid changes to intergenerational transmission patterns suggest that even the largest local languages in Indonesia may be at risk, raising the question of whether a language with millions of speakers can be endangered. In this paper we begin by asserting that a small speaker population size is a symptom, not a cause, of language shift (following Himmelman 2010), by showing that the population size of Indonesian languages does not correlate with current measures of language vitality. We then investigate the question of whether a language with millions of speakers can be endangered by using Javanese, the most widely spoken regional language of Indonesia (80 million speakers), as a case study, based on work by Errington (1998), Kurniasih (2006), Poedjosoedarmo (2006), Smith-Hefner (2009), and Setiawan (2012) among others. We conclude with a discussion of how current measures of language vitality may be enhanced by a clearer understanding of the

complexity of factors involved in language shift and an increased focus on clarifying the relative importance of these factors in predicting successful intergenerational transmission.

2.   Language Endangerment

The 16th edition of the *Ethnologue* (Lewis 2009) includes a statistic that for many linguists highlights a critical need to protect linguistic diversity around the world, with special attention to the fate of minority languages:

> "It turns out that 389 (or nearly 6%) of the world's languages have at least one million speakers and account for 94% of the world's population. By contrast, the remaining 94% of languages are spoken by only 6% of the world's people."
> (*Ethnologue*, 16th edition, 2009)

This statistic, and the fact that it is seen as an implication that the majority of the world's languages are under threat of extinction, exemplifies both the issue of language endangerment and the assumptions that commonly surround the discussion of a language's size. Namely, we assume that a small speaker population makes language obsolescence a foregone conclusion, and therefore the fact that the majority of the world's languages have small speaker populations does not bode well for the future of linguistic diversity.

Krauss (1992) makes a similar prediction, calculating that of the 6000 or so languages listed in the *Ethnologue* at the time, only 600 could be considered safe. He included in these 600 any language that was an official or national language of some nation, as well as any language that had at least one hundred thousand speakers. The rest Krauss considered at risk of endangerment over the next century. Thus he concludes that a combination of a lack of official recognition and a small speaker population is likely to result in a language's death, and conversely that either official status or a large speaker population make a language more likely to be maintained. In fact, as Krauss points out, the only operable measure he considers is language size, since none of the languages with *fewer* than 100,000 speakers were official languages. Our discussion here suggests that speaker size may not actually confer special protections, whereas by definition, we expect that official status does.[1]

Anderbeck (2013) raises this question from a different angle, by asking whether there are languages that are "too big to fail." As Anderbeck discusses, this question is particularly relevant in the Indonesian context, where the range of languages includes both those with speaker populations in the single digits and those with tens of millions of speakers. Thus Indonesia turns out to be an ideal place for testing our assumptions about the role of speaker population in predicting language vitality, an issue that needs to be better understood to develop more predictive models of language shift.

In the following section we consider the current linguistic situation in Indonesia, in light of the highly successful development of Indonesian as the national language following the founding of the Republic of Indonesia in 1945, paying particular attention to the question of the relationship between population size and language vitality.

3.   Language Endangerment in Indonesia

Indonesia (population: 247 million[2]) is the second most multilingual nation in the world, led only by Papua New Guinea. The *Ethnologue* counts 706 living languages in Indonesia, which accounts for almost 10% of the living languages listed worldwide (Lewis, Simons and Fennig 2013). Although the total country population is also large, Indonesia still has a relatively high diversity index (.815), meaning that the likelihood that any two randomly chosen people speak different languages is very high. This diversity across the archipelago can be seen in the linguistic map of Indonesia from the Ethnologue, shown here in Figure 1.

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[1]   Also intriguing is the issue of official languages with very small speaker populations, like Nauru on the island of Nauru (speaker population 6000) and Tuvaluan (speaker population 11,000) in the nation of Tuvalu (Lewis, Simons, and Fennig 2013).
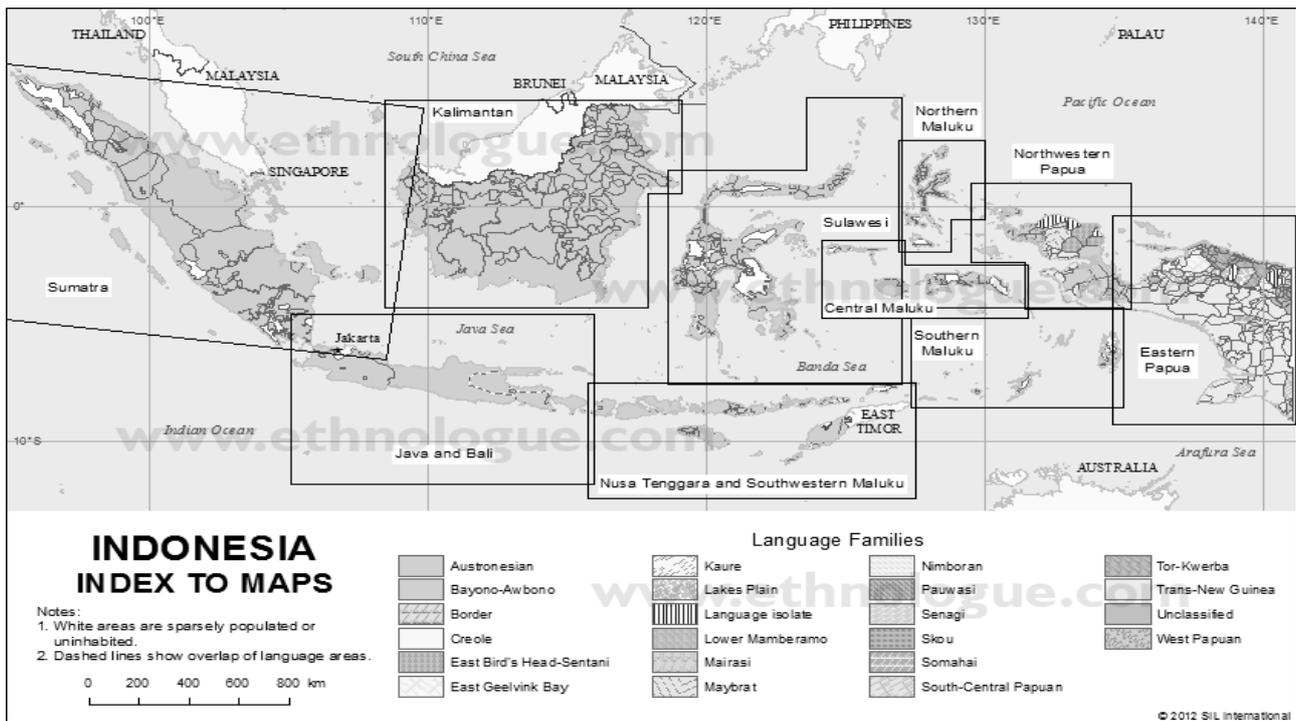[2]   Source: http://data.worldbank.org/country/indonesia

Figure 1: *Indonesia Language map[3] (Ethnologue, 17th Edition)*

The nature of Indonesia's great linguistic diversity is, as with most post-colonial nation-states, a product of its particular and complex socio-history. The language we now know as Indonesian (also called *Bahasa Indonesia*) is a variety of Malay, once widely spoken as a *lingua franca* throughout the archipelago. It was first proclaimed the national language a generation before independence in 1928, laying the foundation for the establishment of Indonesian as the national language of Indonesia at its founding in 1945. It is currently the sole national and official language of Indonesia. Fishman (1978:333, as cited by Sneddon 2006) describes the development and promotion of Indonesian as a "'miraculous' process whereby the population was 'successfully convinced that a particular outside language should become their own integrative, inter-ethnic, unifying tongue'." Indeed, the spread of Indonesian as a national language and *lingua franca* in Indonesia is remarkable, and possibly unparalleled in modern times. Certainly there is no other formerly colonized nation that has promoted a single, non-European language as a national and official language with as much success as Indonesia has, and the results of this policy decision have been very positive in terms of unity and nation building (Anwar 1980, Collins 2004, Sneddon 2003a, Dardjowidjodjo 1998, Anderson 1991), especially remarkable when compared to similar situations in, for example, the Philippines (Savella 2010) where language policy has been highly contentious.

Making the linguistic situation more complex, Indonesian as a national language coexists alongside a number of closely related varieties of Malay in addition to the other Austronesian and non-Austronesian languages of Indonesia. Moreover, a distinction needs to be made between official, formal Indonesian and colloquial Indonesian, generally distinguishable varieties that have no official labels or recognition but that are sometimes referred to as *bahasa resmi* ("official language") and *bahasa sehari-hari* ("everyday language"), respectively (Sneddon 2006). Both Errington (1986) and Sneddon (2003b) argue that the use of these two varieties in largely differentiated domains constitutes a type of diglossia (albeit one that differs from Ferguson's (1959) definition in that the varieties of Indonesian exist along a continuum rather than being recognized as separate languages).

Table 1 illustrates the different stages in the development of Indonesian as a national language, along with the foci in the literature during these respective periods. During the independence movement and early independence, the establishment and development of Indonesian was largely discussed in the language policy literature (e.g. in Lo Bianco 2012). This was followed by its diffusion throughout the country

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[3]   Available at www.ethnologue.com/map/ID_x__.

following independence, widely discussed in terms of multilingualism and diglossia (e.g. in Sneddon 2003b). Finally this period of multilingualism has led to a post-diffusion period of fairly widespread shift away from local languages by the first generation of Indonesians to grow up completely fluent in Indonesian, and this is largely discussed in the language endangerment literature[4]. Now, as we examine the future of multilingualism and diglossia in Indonesia, we ask whether the current level of multilingualism and maintenance of local languages is sustainable, or whether shift will continue away from local languages and lead to widespread language endangerment and loss. As Grimes (1996: 724) writes, "[S]hould Indonesian be a force for unity at the expense of the diversity of existing languages and cultures, or should national unity be built on a foundation that accommodates and appreciates ethnolinguistic diversity?"

Table 1: *Indonesia's sociolinguistic history.*

Stage	Time Period	Focus
I. Establishment and development of Indonesian	~1920s – 1940s	Language policy
II. Diffusion of Indonesian	~1950s – 1980s	Multilingualism/diglossia
III. Post-diffusion	~1990s – 2000s	Language endangerment
IV. The future	~2010s –	Stable multilingualism? Widespread language endangerment?

Steinhauer (1994) considers this last question, and examines it by looking at census data from 1971, 1980, and 1990, presented in Figure 2 following Musgrave (n.d.). These census figures show the percentage of respondents claiming to speak Indonesian increasing from 41% of the population in 1971 to 83% of the population in 1990. It is still unknown to what extent this dramatic increase in the use of Indonesian has affected the use of local languages. In recent years, linguists working on local languages in Indonesia have observed that the increased use of Indonesian is impacting the domains of use of local languages (Steinhauer 1994, Collins 2004). Yet although anecdotal comments are often made about the negative impact of the growth of Indonesian on the continuing use of regional languages, only a few systematic studies have been done (notable exceptions include Errington 1998a and Adisasmito-Smith 2004; see also Nazar 1991). Notably, in the 1970's and 1980's attention was focused on the success of the adoption of Indonesian and not on the effect that this might have on the use of local languages. Figure 3 schematizes three different possibilities, with the solid black line representing something close to stable multilingualism and the grey line representing large-scale language shift away from local languages in favor of the use of Indonesian. The dotted line represents something akin to Krauss's (1992) prediction, where the small languages are endangered while the large ones are maintained.

Anderbeck (2013) presents three portraits of Indonesian language vitality that exemplify the different ways that local languages might be affected by the large scale incursion of Indonesian into every communicative domain. The first scenario is represented by Marori, a language isolate now spoken by only a few individuals in a village on the south coast of Papua New Guinea. The second scenario is represented by Una, spoken in the interior of Papua, which Anderbeck describes as the only minority language in the region to enjoy Sustainable Literacy, although he qualifies this by noting that this period of sustainable multilingualism may be fleeting and threatened by outmigration. Finally, Anderbeck's third scenario is "languages with large speaker populations, but weakening use by the younger generations". His example of this type of scenario is Gorontalo, one of the largest languages in Sulawesi, with a speaker population of close to 1 million. This last example leads Anderbeck to the question of whether there can be languages that are "too big to fail" – the question that we return to in the following section.

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[4]   The language endangerment literature has largely focused on shift away from local languages in Eastern Indonesia (e.g. in Florey 2005), although it may be argued that Eastern Indonesia is not the best example of shift toward Indonesian, since language shift in this area toward the Trade Malays of the area would largely pre-date the post-diffusion period of shift toward Indonesian (Grimes 1996).
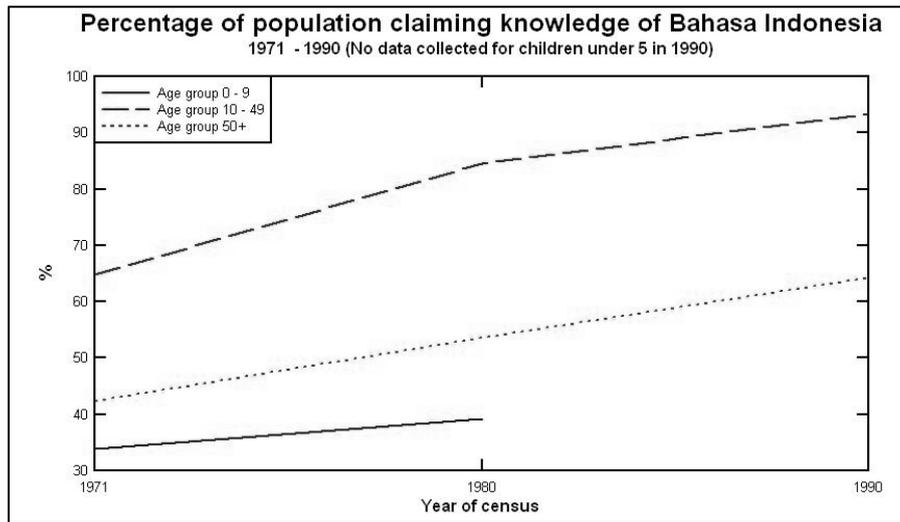
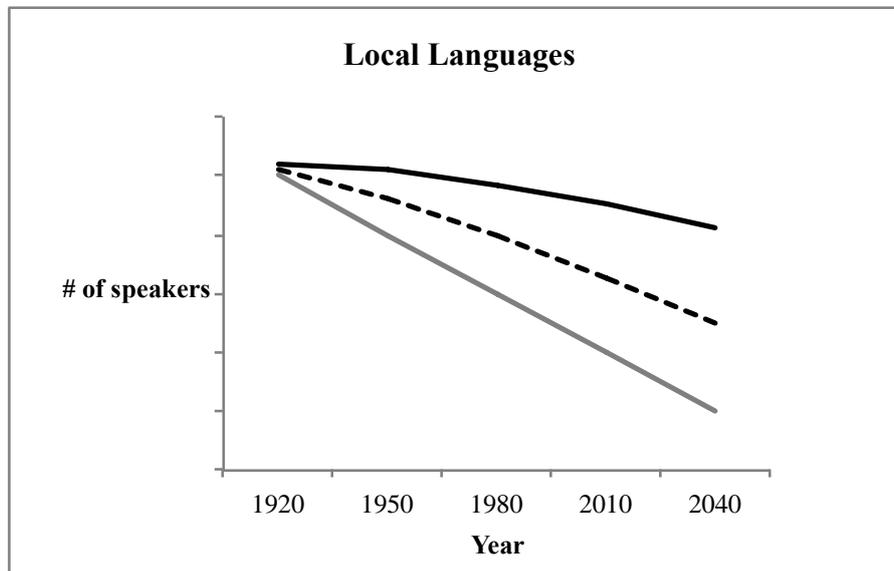**Figure 2:** *Percentage of population claiming knowledge of Bahasa Indonesia (Musgrave n.d. p. 6 Figure 2).*

Figure 3. *Schematization of three possibilities for local language maintenance in Indonesia*

4.   The relationship between size and vitality

With respect to language shift and endangerment in Indonesia, the first question we ask is: To what degree does language size correlate with risk of endangerment? To get a broad overview we can look at language population size along with some measure of that language's vitality, which we do in Figures 4 and 5, showing that in fact there is little correlation between small size and threatened status (or conversely, large size and stability).

Figure 4 gives speaker population sizes for 716 languages of Indonesia (using data from Anderbeck 2013, which has a slightly higher total language count for Indonesia than Lewis, Simons, and Fennig 2013)[5]. The five black bars on the left of the chart include all of those languages with fewer than 100,000 speakers – that is, all of the languages that Krauss would consider, based on numbers alone, to be at risk (the leftmost bar counts those languages that are already extinct). The two right-hand (grey) bars, then, include all of the "big" languages of Indonesia – all of those languages with speaker populations of over 100K. This includes

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[5]   We are very grateful to Karl Anderbeck for his generosity in sharing an earlier version of the EGIDS numbers with us, without which we would not have been able to conduct this analysis. Since the publication of Ethnologue 17 there have been some updates and changes to the EGIDS numbers that are not reflected in our analysis. In addition, the difference in total language counts between the two has partly to do with border language communities, where the speech community on one side of a border may have different dynamics than that on the other side of a border (a fact that is not reflected in the Ethnologue numbers, which treat each language community as a single speech community).

79 languages, for a total of over 200 million speakers. Excluding Indonesian, eighteen of these languages have over a million speakers and are, notably, all spoken in Western Indonesia. The top three – Javanese, Sundanese, and Madurese – all spoken in Java, account for over half of the population of Indonesia and are of particular interest, given the observation that "[i]n spite of their large speech communities, the Javanese, Sundanese, and Madurese languages are actually endangered in that some of their domains of usage are being taken over by Indonesian, and, to a lesser extent, in that they are not always passed on to the next generation" (Adelaar 2010: 25).
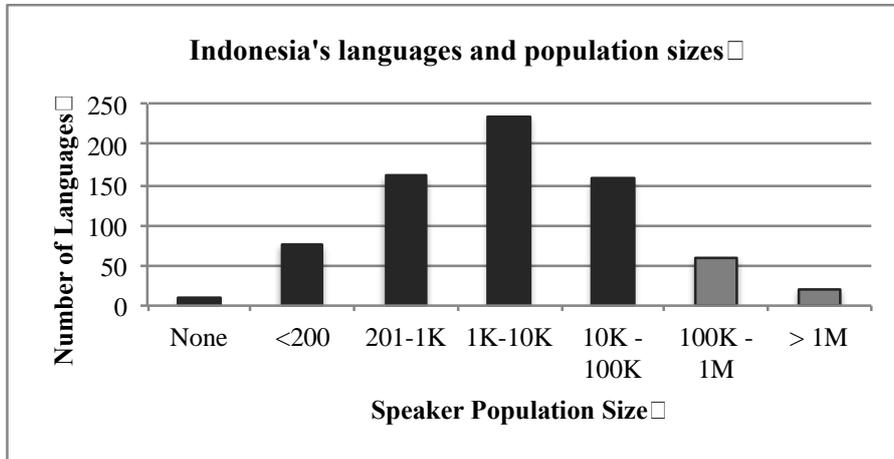

Figure 4. *Languages in Indonesia and number of speakers*

Figure 5 displays the vitality of Indonesia's languages according to the Expanded Graded Intergenerational Disruption Scale (EGIDS) developed by Lewis and Simons (2010) and based on Fishman's GIDS (1991). This scale categorizes languages according to an assessment of their status based on answers to five questions: i) What is the current identity function of the language; ii) What is the level of official use; iii) Are all parents transmitting the language to their children; iv) What is the literacy status; and v) What is the youngest generation of proficient speakers? The thirteen possible categories are listed in Table 2. The scale is intended to serve as an evaluative framework of language endangerment, and to provide practical and accessible information for practitioners of language maintenance and language revitalization. The use of the EGIDS scale as an assessment tool is an excellent step in providing insight into the factors that put languages at risk of endangerment, even if trying to distill the linguistic situation of a given language to a single number is necessarily an oversimplification in situations of dynamic multilingualism.

Table 2: *EGIDS Levels (Lewis and Simons 2010)*

0	International
1	National
2	Regional
3	Trade
4	Educational
5	Written
6a	Vigorous
6b	Threatened
7	Shifting
8a	Moribund
8b	Nearly Extinct
9	Dormant
10	Extinct

The EGIDS scale also allows for a coarser categorization of languages as either "safe" or "threatened," where the authors conclude that languages with a status of 6a or lower are safe, and 6b and above are threatened. Figure 5 displays this categorization by using grey bars for the languages that are tentatively considered safe (due to their function in society and/or an assessment of successful intergenerational transmission), while the black bars indicate those languages that fall under categories that are considered threatened.
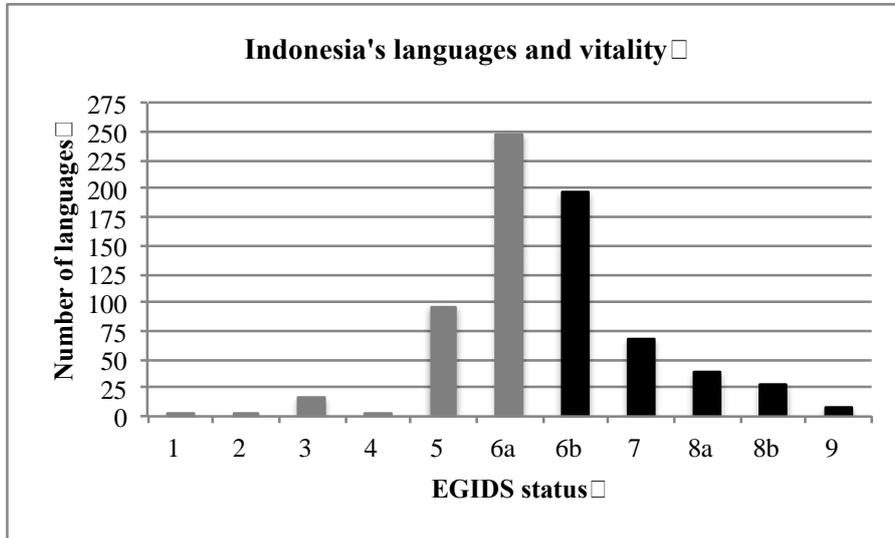

Figure 5. *EGIDS status for Indonesian languages (data from Lewis, Simons, and Fennig 2013)*

Assuming the EGIDS scale to be a reliable indicator, we can ask the question to what degree does speaker population correlate with EGIDS status? Despite what is often widely assumed – that languages with small numbers of speakers are more likely to be endangered, we find little evidence of this in the languages of Indonesia, and we are led to conclude that even larger languages can be at risk. Using the EGIDS status for each of the documented languages of Indonesia, based on data provided by Anderbeck (2010), we find that there is in fact only a very weak correlation between population size and EGIDS status for the languages of Indonesia, as seen in Figure 6. We hypothesize that this fact may be true elsewhere in the world.
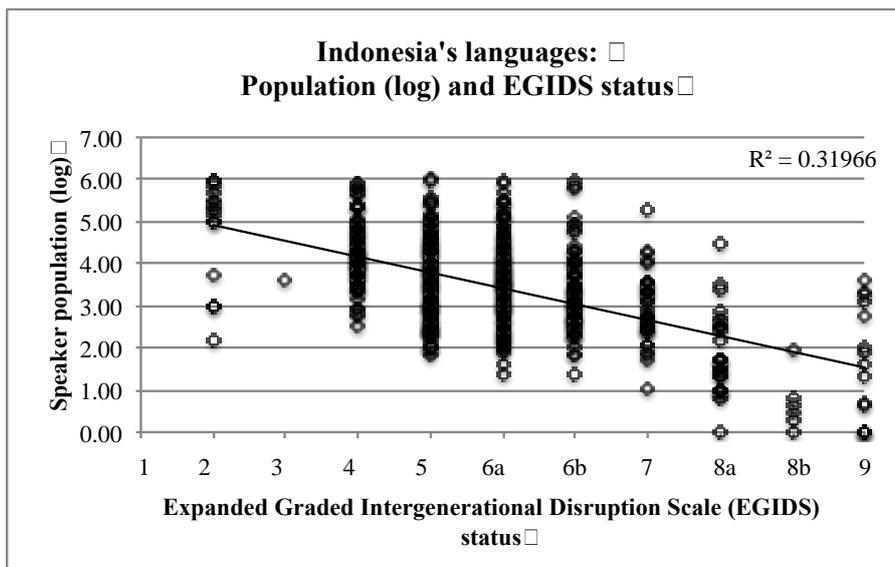

Figure 6. *Speaker population (log) and EGIDS vitality measure for languages with under a million speakers*

Since it is not possible to treat the EGIDS scale as a true continuous scale, where distance between one EGIDS level and the next is equal, we are limited in the statistical analysis that we can perform. However, we can nonetheless consider whether there is a significant population difference between those languages that are considered endangered according on this scale and those that are considered safe. Strikingly, there is no evidence that the average population size is significantly different for the "more vital" languages in Indonesia than it is for the "less vital" languages. Using a t-test to compare average population for the threatened languages (categories 6b-9, excluding 10: "Extinct") to average population for the safe languages (categories 1-6a, excluding 0: "International") we find that the difference is not significant (p= 0.32). Considering how widely it is assumed that language size and vitality correlate this is a startling result.

A small speaker population at some point of course will accompany language death, since the definition of language death includes a dwindling number of speakers. But it is important to distinguish between those factors that result from language death and those that contribute to it. Himmelman (2010: 46) puts this in terms of factors and scenarios, noting "it is rarely the case that one or two or three causes or factors lead to language endangerment. Instead, language endangerment results from the specific and complex constellation of a variety of such factors…an endangerment scenario." The fact that language size and vitality do not correlate is only further evidence that a small speaker population is not a cause of language death. Moreover, as noted by a reviewer, the method used to assign EGIDS numbers further masks the lack of correlation between size and vitality than we show here, since researchers are hesitant to assign languages with large populations an EGIDS value higher than 6a. As Florey writes, "[r]estricting the definition of 'endangered language' to those languages with small speaker populations disguises the extent of the problem" (Florey 2005: 59).

We are left then with several issues to consider. First, this comparison brings attention to the fact that multiple factors contribute to language shift and must be considered when assessing the vitality of a language. In addition, even if there were a strong correlation between size and vitality this would not necessarily indicate a causal relationship. Rather, a small speaker population seems likely to be a symptom, rather than a cause, of language endangerment; the corollary of this observation is that even the large languages in Indonesia are not "safe". In the following section we turn to a case study of Javanese that offers further evidence of shift toward Indonesian amongst speakers of even the largest languages in Indonesia.

5.   A case study: Javanese

Javanese is by far the most widely spoken local language in Indonesia; estimated to have over 80 million speakers it is by some counts the 10th most widely spoken language in the world. It is the only language in this group that is not a national or official language of any country, but if any language of Indonesia is "safe", it seems that Javanese should be. There are a number of factors that would seem to favor maintenance of Javanese, including the size of the speaker population, the existence of dense speaking communities, and the cultural and political dominance of the Javanese community in Indonesia. Indeed, in the early days of Independence and the accompanying promotion and diffusion of Indonesian as the national language, there was concern both about whether Javanese people would learn Indonesian and whether Javanese would overly influence spoken Indonesian. And yet, despite all of these factors that should seemingly support strong language loyalty, we still see changes in use of Javanese that are symptomatic of language shift, especially when we consider shift away from use of Javanese by younger speakers.

One aspect of this shift is a dramatic decrease in the use of high Javanese (*krama*), as reported by Errington (1998b), Poedjosoedarmo (2006), Smith-Hefner (2009), and Setiawan (2012). Young people commonly cite a fear of making mistakes and laziness (Smith-Hefner, Setiawan 2012) as reasons for abandoning the use of the high register in favor of either low Javanese (*ngoko*) or Indonesian, both of which are also seen as both "more communicative" and more egalitarian. Taken together these studies suggest a categorical loss of *krama* in younger generations, and a more gradient loss of *ngoko* (in fact not unlike what we see in other language shift situations with a more precipitous loss of the more formal register). This is exacerbated in the Javanese context with a highly codified distinction between formal and informal, which precipitates a more rapid loss of the formal register.

Accompanying the shift away from *krama* is a rapid shift away from *ngoko* toward increased use of Indonesian as the primary home language. Setiawan (2012), Smith-Hefner (2009), and Kurniasih (2006)

report on this phenomenon and on the social factors that play a role in this shift, including gender, class, language attitudes, and level of urbanization. Of particular relevance to our discussion with respect to language shift are university students' responses collected by Smith-Hefner to the question of what language they use with their parents and grandparents versus their planned language use with future children. In Table 3, reproduced from Smith-Hefner (2009), we see a striking shift from patterns of language use with older speakers and projected language use with future children. Only 11% of students report using Indonesian with grandparents, 13% with their parents, but 62% report planning to use Indonesian with their children. In addition, both Kurniasih and Smith-Hefner show middle class girls leading the shift to Indonesian as a first language. Table 4, also reproduced from Smith-Hefner (2009), shows a higher percentage of her university women respondents shifting to Indonesian than the university men, both with their parents and with their expected future children. Finally, an urban-rural divide is found in Setiawan's (2012) study of children aged 9-11 in three East Java locations (city, town, and village), which finds that while "city children report us[ing] Indonesian when communicating with all their interlocutors regardless of domain," most village children "report using Javanese to all of their interlocutors except when communicating with their teachers in the classroom" (293-94).

Table 3: *Reported Indonesian language use by university respondents in Smith-Hefner (2009).*

Reported Indonesian language use	
Use with grandparents	22/206 (11%)
Use with parents	25/199 (13%)
Plan to use with own children	123/198 (62%)

Table 4: *Reported Indonesian language use by university respondents in Smith-Hefner (2009), broken up by sex.*

Reported Indonesian language use		
	Male	**Female**
Use with grandparents	10/105 (10%)	12/101 (12%)
Use with parents	8/104 (8%)	17/95 (18%)
Plan to use with own children	50/97 (52%)	73/101 (72%)

Together these studies paint a picture of pivotal language shift reflecting rapidly changing social attitudes and social goals, evidenced in particular in the language use patterns of urban dwellers and middle class women and their daughters. Although it is not clear from these data alone whether children or parents are driving these linguistic choices, Smith-Hefner's study suggests that it may be mothers, as much as daughters, and Setiawan reports on the negative attitudes many *parents* in his study held toward Javanese, labeling it "difficult," and "old-fashioned," and conveying an impression that its speakers are "poor and village-like." Thus the parents in Kurniasih and Setiawan's studies and the young adults in Smith-Hefner's study appear to be a *pivotal generation* in language shift, a group of fluent speakers who nonetheless display both overt and covert negative attitudes toward their home language. This finding is reported for other language shift scenarios (see, for example, Ravindranath 2009). As Indonesian takes over in more and more domains of communication and intergenerational transmission of Javanese breaks down, we are led to conclude that even a language with over 80 million speakers can be at risk, a trend that has serious implications for all of the local languages of Indonesia.

6. Conclusions and next steps

While it is generally agreed that Indonesian is a successful example of language planning and language standardization in the interest of nation building, this has clearly had implications for local languages. Moreover, the negative impact of Indonesian on local languages is not limited to the "smaller" languages in Indonesia, but is even affecting the larger languages, not generally thought to be at risk. Clearly, even a huge

language like Javanese, amongst the top ten languages in the world, can be endangered. In terms of language endangerment then it seems there is no such thing as "too big to fail". Although there may be a number of possible predictors of maintenance that relate to larger speaker population size (including a greater likelihood for official recognition, a greater likelihood for previous documentation, and a more diverse speaker population that may be less likely to simultaneously shift away from the L1), size alone cannot predict whether robust intergenerational transmission is occurring. Thus a clearer understanding of the demographic, sociolinguistic, and attitudinal factors that lead to individual and community decisions about intergenerational transmission is crucial to assessing risk of endangerment.

Since the issue of language shift away from the large regional languages of Indonesia has been comparatively understudied, we choose to focus on these – both in this paper and in our work in progress. We see a need to complement and augment the heretofore standard methodologies of either giving a single number to assess language viability or conducting careful ethnographic studies of smaller communities. To this end, we have initiated a survey to examine the social factors related to shift in Sundanese and Javanese speaking communities (*Kuesioner Penggunaan Bahasa Sehari-hari,* Cohn et al 2013). An advantage to a focus on languages with large speaker populations is that is offers us an opportunity to conduct multivariate analyses of a wide range of factors in a demographically diverse language community. Since we can find speakers of Javanese, Sundanese, and Madurese not only in all age groups and genders, but also with widely differing levels of education, diverse levels of access to technology, diverse types of family structures, and in both urban and rural environments at different stages of socioeconomic development, this diversity allows us to compare and consider more closely how these factors may or may not contribute to language shift. This work also brings attention to the fact that vitality assessments of language communities are likely to be flawed if they do not take into account the fact that language communities are not necessarily the same as speech communities, that is, groups of speakers who share not only a language but also norms about language use (Labov 1972). A single language community may be made up of smaller speech communities that have different sociolinguistic dynamics. At a minimum therefore we may need to consider that it is more useful to assign vitality measures such as EGIDS to individual speech communities than to the larger community of speakers of a particular language.

The study of language endangerment is really still in its infancy. We do not yet have predictive models of what languages are at risk, and while it is clear that documentation is important, we need a methodology that allows us to more accurately predict the degree of risk. We have shown in this paper that size is not an accurate predictor of language shift. In order to better understand which factors *are* predictors of language shift, it is necessary to study local patterns of use to understand the complex factors that contribute to language vitality and thereby create a typology of language endangerment scenarios. At the same time we would like to be able to document as many factors as we can that contribute to language shift, while we document the rate of change. As it becomes clear that large, dense, diverse speaker populations do not prevent language shift, we aim to build awareness of this issue, as well as take the opportunity to use these large language communities to quantitatively analyze the factors that contribute to the process of language shift.

References

Adelaar, Alexander K. 2010. Language Documentation in the West Austronesian World and Vanuatu: An Overview. In: Margaret J. Florey (ed.). *Endangered Languages of Austronesia.* Oxford: Oxford University Press. Pp. 12-41.

Adisasmito-Smith, Niken. 2004. *Phonetic and Phonological Influences of Javanese on Indonesian*. PhD dissertation, Cornell University.

Anderbeck, Karl. 2013. Portraits of Indonesian Language Vitality. To appear in *Pacific Linguistics ICAL 2012 Proceedings*, Vol. 2: Language documentation and cultural practices in the Austronesian world.

Anderson, Benjamin. 1991. *Imagined communities: reflections on the origin and spread of nationalism*. London: Verso.

Anwar, Khaidir. 1980. *Indonesian: The Development and Use of a National Language*. Yogyakarta, Indonesia: Gadjah Mada University Press.

Cohn, Abigail.C., John Bowden, Timothy McKinnon, Maya Ravindranath, Rindu Simanjuntak, Bradley Taylor, Yanti. 2013. Assessing the impact of Indonesian on the the maintenance of local languages. Paper presented at ISMIL 17, Padang, Indonesia.

Collins, James T. 2004. The history of Indonesian and the future of Malay. In: Katharina E. Sukamto & Anton M. Moeliono (eds.). *Menabur Benih, Menuai Kasih: Persembahan Karya Bahasa, Sosial, Dan Budaya Untuk Anton M. Moeliono Pada Ulang Tahunnya Yang Ke-75* (1st ed.). Jakarta: Kerja sama Universitas Katolik Indonesia Atma Jaya [dengan] Yayasan Obor Indonesia.

Dardjowidjodjo, Soenjono. 1998. Strategies for a successful national language policy: the Indonesian case. *International Journal of the Sociology of Language 130:* 35-47.

Errington, J. Joseph. 1986. Continuity and change in Indonesian language development. *Journal of Asian Studies 45* (2): 329-353.

---. 1998a. Indonesian('s) development: On the state of a language of state. In: Bambi Schieffelin, Kathryn A. Woolard & Paul. V. Kroskrity (eds.). *Language ideologies: Practice and theory.* New York: Oxford University Press. Pp. 271–84.

---. 1998b. *Shifting languages: Interaction and identity in Javanese Indonesia*. Cambridge: Cambridge University Press.

Ferguson, Charles A. 1959. Diglossia. *Word* 15:325-40. [Reprinted in 1972 in: Pier Paolo Giglioli (ed.). *Language and social context; Selected readings*. Harmondsworth: Penguin. Pp. 232-51]

Fishman, Joshua. 1991. *Reversing language shift*. Clevedon, UK: Multilingual Matters.

Florey, Margaret. 2005. Language Shift and Endangerment. In: Alexander Adelaar and Nikolaus Himmelman (eds.). *The Austronesian Languages of Asia and Madagascar.* New York: Routledge. Pp. 43-64.

Grimes, Charles E. 1996. Indonesian—the official language of a multilingual nation. In: Stephen A. Wurm, Peter Mühlhäusler, and Darrell T. Tryon (eds.). *Atlas of Languages of Intercultural communication in the Pacific, Asia, and the America*. Berlin: Mouton de Gruyter.

Himmelmann, Nikolaus P. 2010. Language endangerment scenarios: a case study from northern Central Sulawesi. In: Margaret. J. Florey (ed.). *Endangered Languages of Austronesia*. Oxford: Oxford University Press. Pp. 45-72.

Krauss, Michael. 1992. The world's languages in crisis. *Language 68.1*: 4-10.

Kurniasih, Yacinta. 2006. Gender, Class and Language Preference: A case study in Yogyakarta. In: Keith Allan (ed). *Selected papers from the 2005 Conference of the Australian Linguistic Society*. http://www.als.asn.au.

Labov, William. 1972. *Sociolinguistic patterns*. Philadelphia: University of Pennsylvania Press.

Lewis, M. Paul. (ed.). 2009. Ethnologue: Languages of the World, Sixteenth edition. Dallas, Texas: SIL International. (accessed 1/10/2012 at http://www.ethnologue.com/16)

Lewis, M. Paul, and Gary F. Simons. 2010. Assessing endangerment: expanding Fishman's GIDS. *Revue Roumaine de Linguistique 55*: 103-120.

Lewis, M. Paul, Gary F. Simons, and Charles D. Fennig (eds.). 2013. Ethnologue: Languages of the World, Seventeenth edition. Dallas, Texas: SIL International. (accessed 24/4/2013 at http://www.ethnologue.com)

Lo Bianco, Joseph. 2012. National language revival movements; reflections from India, Israel, Indonesia and Ireland. In: Bernard Spolsky (ed.). *The Cambridge Handbook of Language Policy*. New York: Cambridge University Press.

Musgrave, Simon. n.d. *Language shift and language maintenance in Indonesia.* La Trobe University ms.

Nazar, Noerzisri A. 1991. *Bahasa-Ibu Pada Masyarakat Bilingual Indonesia*. Bandung: Institut Teknologi Bandung.

Poedjosoedarmo, Gloria. 2006. The Effect of Bahasa Indonesia as a Lingua Franca on the Javanese Speech Levels and Their Functions. *International Journal of the Sociology of Language* 177(1):111–121.

Ravindranath, Maya. 2009. *Language Shift and the Speech Community: Sociolinguistic change in a Garifuna community in Belize*. PhD dissertation, University of Pennsylvania.

Savella, Maria Theresa. 2010. *Tagalog/Pilipino/Filipino: The politics of language in the Philippines*. Lecture given at Cornell University.

Setiawan, Slamet. 2012. *Children's language in a bilingual community in East Java*. PhD dissertation, The University of Western Australia, Perth Australia.

Smith-Hefner, Nancy. 2009. Language shift, gender, and ideologies of modernity in Central Java, Indonesia. *Journal of Linguistic Anthropology 19* (1): 57-77.

Sneddon, James N. 2003a. *The Indonesian Language: Its History and Role in Modern Society*. Sydney, NSW: UNSW Press.

---. 2003b. Diglossia in Indonesian. Bijdragen tot de Taal-, Land- en Volkenkunde 159.4, 519-549.

---. 2006. *Colloquial Jakartan Indonesian*. Pacific linguistics. Canberra, Australia: Pacific Linguistics, Research School of Pacific and Asian Studies, The Australian National University.

Steinhauer, Hein. 1994. The Indonesian language situation and linguistics: Prospects and possibilities. *Bijdragen tot de Taal-, Land- en Volkenkunde* 150/4: 755-783.