

Understanding language shift

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This is a response to the commentaries on our epistemological paper, The dynamics of bilingualism in language shift ecologies. The commentaries highlight the challenges in studying language shift ecologies and the competing goals of different research approaches. We hope this set of papers invokes rich discussion about other possible research questions we can ask and the research methodologies we can use to answer them.

Keywords: language shift, language change, experimental fieldwork, endangered languages

1. Introduction

Our epistemological paper (Grenoble & Osipov, 2023) and the commentaries on the paper illustrate some of the intricacies of language shift ecologies and the complexities of studying them. Taken collectively, the commentaries represent not only responses to our own article, but speak to an underlying tension between the two research communities represented here: the linguists working primarily with bilingualism from a psycholinguistic/experimental standpoint concerned with collecting quantitative, reproducible data, while the more field-oriented linguists place a premium on community issues and collaborative research frameworks. Many of the responses raise the fundamental question of who is this research for – the community of speakers or the community of researchers – and whether it can be useful for both. A number of theoretical and methodological questions are raised across the commentaries in different ways. These issues are interrelated: the choice of research methodologies depends on the research questions, theoretical goals, and the underlying assumptions and understandings of the communities.

Our summary here is oversimplified and reductionist, but a general difference in approaches, goals and biases emerges. In the extreme these differences lead **Lloyd-Smith & Kupisch (2023)** to remark on barriers in scientific communities that make it hard to do research on small populations. We agree. The push to have

big data, quantifiable data analyses that can be shown to be statistically significant. This often sets the bar at an impossibly high place for small speaker communities, and the push to get quantifiable data can come at the expense of more finely grained qualitative data. In endangered language communities, the sample size is often simply too small. In the case of the Republic of Sakha (Yakutia), where we conduct our work, Tundra Yukaghir has an estimated 20 speakers. Insistence to adherence of strict statistical rigor eliminates such communities from consideration; this not only further marginalizes these communities; it also significantly restricts and limits the scopes of our science. Do we really want to be in a position where we omit small populations from our studies simply because they are small?

2. The role of typologies in understanding language shift

Part of our work involves identifying a typology of speaker types; such a typology can be a useful descriptive tool and a useful diagnostic tool. When **O'Shannessy & Angelo** (2023) compare our typology of speakers to their typology of Indigenous language ecologies, they discover gaps in ours, that certain kinds of ecologies and speaker types are not represented. These are, specifically, mixed language speakers (Light Warlpiri in their example) and the use of the majority language with markers of local Indigenous identity. In contrast, we have no evidence for either of these. We do not know of the emergence of any mixed varieties of the type that **O'Shannessy & Angelo** (2023) describe in the context of northeastern Russia, although trade pidgins are documented (Grenoble & Kantarovich, 2022, pp.179–184). But they are a different phenomenon, and as of now we have no evidence of an emergent new languages of the Light Warlpiri type; rather we seem to find transitional varieties whose usage is part of the shift process. That is, we find speakers who mix codes but the mixing is either situationally based – using one code to describe an event that took place in that code, another for the bulk of the conversation itself – or is used by speakers who lack proficiency in the target language and are being pushed to use it, as in retellings of the Bridge Story. Here is another instance where some method of assessing speaker proficiency is useful, because it can account for these different strategies in switching from one language to another.

Bousquette, Klosinski & Putnam (2023) argue that we put too much emphasis on proficiency as the primary measure of shift, which they see as associated with a “deficit” model of bi-/multi-component speakers. One solution to avoid a sense of deficit models is proposed by **Taylor-Adams** (2023), who essentially proposes flipping the script to focus on speech communities where language usage is reawakening and thus emergent. But it was not our intention to highlight deficit:

we do not see this a deficit model and we are not focusing on measuring shift, but rather understanding language change associated with shift. If speakers have some command of a language, what structures remain? The question is: which language(s) can speakers use in different domains to accomplish their needs? Many of our consultants can complete the picture production task when the lexicon is supplied but cannot retell a simple story without the lexicon. This finding reinforces their observation that language shift is domain-specific prior to ultimate shift. In late-stage shift, locating what domains are still viable, and what linguistic tasks remain vital for shifting speakers is a valuable exercise for understanding the processes of shift and for language revitalization efforts alike: it helps determine tipping points for activating language usage.

3. Establishing a baseline

Several people pushed back on the need to describe a baseline, and **King (2023)** notes that the need to establish a baseline, and a speaker typology, is anchored in Western approaches to language shift. As she says, the academic question of speaker types may be of little use to communities, but at the same time communities who are working to revitalize their language have a strong desire to “get it right.” We agree, and the question of how to be locally responsible while still conducting research in communities is a complex one. In the Russian context, there is a long-standing tradition, dating back to Soviet times, of promoting indigenous scholars. At present, success for such scholars is defined by Russian academic institutions, and specifically they need publications that are assessed according to international, Western metrics, such as indexing in Web of Science or Scopus. This is a requirement set by central authorities in Russia, and is a critical component of the context in which all research is conducted.

As for the baseline itself, we would argue that if we are to study language change, we need to know what has changed from what (or as **D’Alessandro (2023)** puts it, “Shift with respect to what?”). From the standpoint of Western-style research, this is a central concern if we are interested in change, and we would argue that we should indeed be investigating the dynamics of language change while it is happening. While such work runs the potential danger of reinforcing ideologies of a standard language, many of those ideologies are beyond the scope of what a researcher can change. This may be a controversial claim, and our research does have an impact on local beliefs, but at the end of the day, our consultants in Russia still live within a society that is strongly oriented toward norms: they need to pass the standardized Unified State Exam to graduate from high school. This is a national requirement, and its reinforcement of a belief in stan-

dardized norms outweighs our contributions on a local level. This brings us full circle to King's point that operationalizing decolonizing methodologies is complicated and requires sustained collaborative work. We would simply add that what is possible is dependent on the broader contexts in which that work occurs and it would be misleading to think that collaborations are possible in the same way in all parts of the world.

We would add that a baseline is not necessarily a standardized norm. Even and Evenki have standardized varieties that were created in the Soviet period, but their position is contested. The Evenki standard language was based on a dialect that is no longer spoken and is quite different from the Evenki spoken by the majority of users today; people reject it (Grenoble & Bulatova, 2017). The Even standard language is based on a variety close to the Berezovka dialect, but because it is not used in domains outside the school. It is not considered to be a model of how to speak in Sebyan-Kyuyol, where the differences are recognized as regional, and even the local dialect is taught in some schools (while the standard is used in others).

4. Methodology

The overall question of methodologies provoked lively and useful discussion. Some of the differences in opinions in this matter stem from differences in research goals, again underscoring the differences between the more quantitative camp versus the more qualitative, documentation-oriented camp. **Meakins** (2023) points to the hazards of an analysis that focuses on a single variable, or just a few variables, and argues for a BayesVarbrul multivariate analysis of language change. This is a promising approach and something we intend to implement in our research going forward. Meakins makes the valuable correction that our focus on production in a single language (Even) fails to assess how well the speaker performs in other languages; we have been collecting that data and see it as further supporting the fact of language shift, as speakers with lower proficiency in Even are highly proficient in Russian (or Sakha). The BayesVarbrul analysis is very promising; it does require data collection across a number of different variables which is itself not trivial.

Other experimental data in other communities show similar goals and methodologies. **Maia & Gomes** (2023) present the interesting case of Karajá as successfully responding to shift, with their experimental work similarly focusing on process. As they argue, the study of non-WEIRD populations, in different speech ecologies, with different outcomes, can do much to broaden our knowledge of the processes of shift and change. One of the exciting potentials of

experimentally-oriented research is that it is potentially replicable in different settings, providing contrastive data to further enhance our understanding of how linguistic and social factors interact (or do not) to produce different outcomes.

The value of building a corpus from sociolinguistic interviews is clearly illustrated by **Vallejos-Yopán & Bittar (2023)**. To be clear, we are not advocating using experimental methodologies to the exclusion of other more qualitative methods, such as interviews and narratives. Our point is rather that to focus on the distribution of any particular construction, we need methods that test its usage across different speakers. The different methodologies complement and supplement one another. Both are necessary, in part because of the inherent difficulties of experimental work, as demonstrated by **Rosés Labrada (2023)**. He underscores the need for locally relevant stimuli, a problem we encounter in our work in the Arctic. His example from Bowerman & Pederson (1992) has posed problems in Grenoble's own work on spatial language in Greenland: trees do not grow that far north; people do not use garden hoses and do not recognize them in the picture. Other standard methods of eliciting data (use of the Frog Story, the Pear Story) are also problematic as the settings are profoundly foreign for the Arctic regions, and we have adapted our stimuli to be locally appropriate.

5. Input

A set of these commentaries speak to the larger context of language contact ecologies and essentially argue that we are oversimplifying them, by not considering variation in the majority/dominant language, by focusing on a limited set of variables. Specifically, a number of authors point out the importance of having a more holistic picture of the language ecology as a whole, including more information on other languages in the ecology (**Meakins, 2023**), and variation in the dominant, majority language (**Laleko & Kisselev, 2023**), and taking into account variables that are locally relevant (**Stanford, 2023**). In our paper, we have specifically focused on two differing language ecologies. In the village of Berezovka, we find Even and Russian, but only perhaps one Sakha speaker who speaks Russian every day. Shift is in the direction of Russian, and Sakha is not part of their ecology. In Sebyan-Kyuyol, we find three languages: Even, Russian and Sakha speakers. Here we find shift in the direction of Sakha, which is part of the local ecology, and is dominant in the surrounding region. This underscores the complex role of the holistic language ecology.

The point of variation in the dominant language is well taken, and as **Laleko & Kisselev (2023)** note, local varieties of Russian are understudied. The research here suggests that these differences may not be as great as we might expect. There

is a strong bias against non-standard varieties in Russia, with a highly favorable attitude toward the standard (Krause et al., 2006; Krause et al., 2003), leading some (Kasatkin 1999) to argue that non-standard variants have been disappearing (or degrading) for decades in favor of a more homogenized and valorized standard in large part due to Soviet politics, although Krause & Sappok (2014) argue against this position.

That said, we need research on different varieties of Russian in use in the Sakha Republic, in particular varieties as spoken by different Indigenous groups in different regions. While there have been studies of the Russian speech of ethnic Sakha (such as Ivanova & Semenova, 2008), we know of no such research for Indigenous minorities. There is a recognizable Even Russian, and, anecdotally, Even (and Sakha) who speak Russian are perceived as less emotional and ruder than Russians speaking Russian. In the same vein, Even speaking Sakha are perceived as having their own kind of accent, and it appears in spontaneous speech. For example, according to our own observations the Russian palatal affricate [c] is pronounced as a long [s:], and the prosody of Even Russian is flatter than in Standard Russian, so that intonational contours are not marked by the same peaks and lows. This probably leads to the impression of a “lack of emotion” in Russian-speaking Even. But we do not have evidence that they use it to index identity and, at least anecdotally, some Even are embarrassed by their accent and try to avoid it. Further research is needed here, but it would certainly be a mistake to assume that there is the same kind of prestige, covert or explicit, for Siberian indigenous peoples that we frequently find in North America.

Regardless, the issue of word order is a thorny one. Laleko & Kisselev (2023) point to a trend toward OV order in Russian, but this would not explain a movement away from V-final (or head-final) order in Even. The changes in Even would be perhaps better packaged as the fact that constituent order has become available for signaling information structure, representing a tendency away from stricter head-final order.

Certainly, the kind of input that language learners (children and adult L2 learners) receive is critical in understanding acquisition outcomes, as O’Grady, Heaton & Bulalang (2023) demonstrate. A number of languages are being actively revitalized in formal educational programs, in particular in school programs, and many revitalization efforts rely on L2 speakers as the primary teachers due to a lack of L1 speakers, and/or insufficient L1 pedagogues. O’Grady et al. show that such settings often provide limited lexical and morphosyntactic input, so that learners are exposed to relatively small lexical inventories and only some constructions. We do not have comparable data for our region, and it is an area that begs for research. Revitalization efforts have taken force only in the last decade or so in much of Russia and we do not have data on how widespread organized pro-

grams are today. The majority of Even who learn the language sufficiently well to speak it at any level do so in the home, with input from speakers in natural settings, which is further reinforced by interactions with other Even-speaking children. It is certainly taught in the schools and where an Even-dominant village like Berezovka has mixed classes of children who speak Even at home and those who have learned it only in the school. Research is needed into the kind of input that they receive and further feedback from that research to develop more holistic language usage in the classroom, so that children are not simply learning imperative forms.

6. Variation and micro-variation

A number of responses discuss variation in speaker communities, providing rich examples that bolster our conclusions. The significance of contributions to science from non-WEIRD communities is highlighted in several of the responses (Rosés Labrada, 2023; Maia & Gomes, 2023), who show how such findings can corroborate findings for Indo-European (that is, WEIRD populations), and show how the study of such populations not only broadens our knowledge, but can uphold findings based on the study of Indo-European languages and provide more cross-linguistic rigor to these analyses (Maia & Gomes, 2023).

Sopata, Rinke & Flores (2023) note that the kinds of variation we report on is similar to other bilingual contexts, comparing our cases to German L2 learners and heritage speakers and point to the importance of acquisition onset in such studies. This touches on a core issue for us: whether there are systematic linguistic differences between heritage speakers of immigrant languages that are a majority elsewhere (such as German in the US) versus speakers of indigenous languages in shifting ecologies (such as Potawatomi in the US). The German speakers have potential access to more resources and more input; the Potawatomi speakers are dependent on other L2 speakers for input. We see the need for more research in endangered language communities that replicates the research questions and methodologies that have been more widely applied in heritage language studies. This will greatly increase the typological variation of languages under study, as much of heritage language research to date has been focused on Indo-European languages, and at the same time will add considerably to our knowledge of shifting speakers. This has the potential to inform acquisition efforts as well.

D'Alessandro points to the fact that we do not use the term *microvariation* despite the fact that we are largely focused on such, and that it is useful to distinguish between microvariation and macroparameters. The distinctions are useful to keep in mind in future research.

7. Community needs

Several authors point out that it is not clear that our research addresses community needs or interests in any way. On the one hand, this is true. For example, **Amaral & Sánchez (2023)** ask who benefits from the speaker typology, and we intend it as a diagnostic tool for researchers, not for revitalization. Our research is designed more specifically to ask scientific questions, with the idea that the results of this research could then be repackaged and repurposed to further community goals down the road. We would like to underscore that revitalization efforts as a whole have not been broadly embraced by indigenous communities in north-eastern Russia, at least not in the way that they are supported in North America, Europe and Australia. Rather, we are more likely to find individuals and small groups of activists who are concerned with language. For many, revitalization as such is not an obvious goal, and people see the school as the locus of such efforts.

On the other hand, we have found that our research has had an impact on many of the people we work with, who have a sense of heightened prestige and self-worth because external researchers are paying attention to them and asking questions about their language. Our basic picture experiment has been adapted by some language teachers for use in the classroom. In the same vein, although the speaker typology is useful for research, it can also help language planners and policy makers: if they are intent on strengthening language use, it is important to have a good sense of who uses the language when, where and how; this is part of a larger assessment that needs to take place for revitalization efforts (Grenoble & Whaley, 2021, p.913; Grenoble & Whaley, 2006, pp.161–170). And the results themselves can be used to inform language pedagogy: identifying areas of change can be of use to language teachers and pedagogues who wish to address them in their methodologies.

8. Theoretical questions

The commentaries have provided a robust discussion of many of the issues and perspectives involved in researching and understanding language shift. It has perhaps raised as many questions as it has answered, and we still do not have a clear understanding about the linguistic processes involved in language shift and loss, and how they compare to acquisition and the reemergence of language vitality.

Can we identify a hierarchy of loss, as we have identified general hierarchies in acquisition order? How does acquisition in revitalization compare to language acquisition more broadly? **Taylor-Adams (2023)** asks whether a new speaker, acquiring the language as an adult, mirrors the shifting speaker, who loses the

language? This is a fundamental question in language acquisition, as to whether the last-learned phenomena are the first lost? Taylor-Adams rightfully points to the role that dynamic shift ecologies can play in studying thorny questions of L2 acquisition order (see Hulstijn et al. (2015), and the papers in that special issue). Similar is the issue of language shift ecologies, and how speakers in shifting communities compare to heritage language speakers. There are strong similarities between the speakers: both learn a language at home and use a different language as a primary language outside of the home. Just how unique shift ecologies are requires more research, and there are certainly ample communities to study.

We would like to emphasize that some of the discussion speaks to fundamental differences in research goals, whether the primary focus is understanding language shift from the perspective of (Western) linguistic science, or from a view anchored in community-driven research and priorities, and an underlying question – that we have not attempted to answer – as to whether the two can be fully brought together.

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