Aspects of uniqueness

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The linguistic data for this presentation comes primarily from the Yukaghir languages, Kolyma and Tundra Yukaghir. One of my primary goals here is to present a range of functionally and structurally diverse Yukaghir constructions, all of which seem to be rare, and possibly even unique, cross-linguistically. Yet I would like to look at them not just from the linguistic vantage point, but in a somewhat broader context, including the phenomenon of endangered languages in general, its place and role in the human history, and various challenges posed by this phenomenon, both linguistic and humanitarian. That's why I decided to structure the presentation around what I see as the key statements of the manifesto of the Foundation for Endangered Languages. So, as you will find, each section of my talk has an epigraph from the manifesto as its starting point.

1. Endangered languages and human rights

> *Along with it may go a large part of the pride and self-identity of the community of former speakers.*
>
> The manifesto of the Foundation for Endangered Languages

Unlike many other linguistic topics, the phenomenon of endangered languages inevitably concerns not only our linguistic selfs and our scholarly experiences, but also, or maybe even more so, us as human beings, motivated by our personal experiences. Although this is usually kept implicit in the academic setting, I would like, on this occasion, to be explicit. The reason why I find this important is that, at least in some cases, the concept of language preservation seems to come into conflict with the concept of universal human rights, and Yukaghir is a case in point. I'll try to show this by outlining the sociolinguistic situation in the Yukaghir communities and their own attitude to this situation.

The relationship between the Russian Empire and its political descendants and the northern aboriginal peoples is long, complex, and, I would say, peppered with the best

intentions with controversial consequences. I couldn't possibly review this history here, but this is how it looked from the Yukaghir point of view in 1992, by the time the Soviet Union ceased to exist. Here is a rough translation:

> *First you Russians came and told us that our shamans were bad, they were lying to us, and your white God is good. Well, we agreed, we began to worship your white God. But then you guys came and told us that your white God was a lie, intended to enslave people, that communism is good. Well, we agreed, we stopped going to churches, we became party members. But now you guys come and tell us that communism is bad, now you tell us democracy is good. Well, guess what? Enough is enough: from now on, we aren't going to listen to you guys anymore, we'll stick to our traditional Yukaghir values, we'll keep being communists.*
>
> Ivan Dolganov, Nelemnoye, 1992

This is true: the Yukaghir used to accept easily all Russian policies, and even helped the Russians in their wars with those who wouldn't (like the Chukchee and the Koryak). The Yukaghir was first identified as endangered in the end of the nineteenth century, by Voldemar Iochelson. Yet it didn't disappear: when I first got there, in 1987, sociolinguistic situation was similar to the one described by Iochelson: in the village of Nelemnoye, the home to Kolyma Yukaghir, only the eldest living generation spoke the language fluently. The younger people, and their children of course, seemed to have no knowledge of Yukaghir whatsoever. In Andryushkino, the home to another Yukaghir language, Tundra Yukaghir, the process of population shift seemed to be delayed by one generation.

Yet what struck me most at the time was that almost none of them seemed to value their language, and in fact they couldn't care less about its survival. This was almost universally the case for the generation most important for the language survival, the parents of young children. For example, Yukaghir was taught in schools at that time, a policy supported by some of the oldest Yukaghir, but not by the parents of the childrent being taught, who thought that their kids' time would be better spent studying something else. Like English, for instance. And, judging from earlier sociological studies, this attitude was there for quite some time, that is, the very same, now older, people who

seemed to welcome state-sponsored language-preservation policies in 1987, apparently used to feel quite differently about it when they, themselves, had had young kids to raise. Generally, the Yukaghir parents thought that their kids would be better of with a "normal", Russian-based education. Among other things, this meant that the children would have a chance to continue their education and become doctors or engineers, not hunters or reindeer-breeders; accordingly, they would talk Russian to their kids and oppose Yukaghir as an obligatory subject in school. My first internal response to this line of reasoning was, of course, as probably is yours, about Yukaghir itself and Russian-Yukaghir bilingualism being no impediment to a good education. Yet, I kept this response to myself. For one thing, they generally need to be at least bilingual anyway – they live not just in the Russian Federation, but in its Yakut, or Saha, republic, where Yakut is the major language of communication. Moreover, there are also other languages spoken in the region. In Andryushkino, for example, there are five languages (Yakut, Russian, Yukaghir, Even and Chukchee), and delays in speech development seemed to have become a local norm, so that it was still an issue by the age of seven, when the kids had to go to school. In this context, any talk about the value of multilingualism and its being no impediment for education seemed somehow misplaced.

Secondly, one of the good things associated with a good education was, for them, leaving the village, which entails living outside any Yukaghir community where the language would never be used anyway. And the life in these villages, let me tell you, is very harsh. They are located, after all, right in the center of the region traditionally occupied by the so-called GULAG (the State Department of Labour Camps). It is the place of which a well-known Russian song says that it's "a strange planet where the winter is twelve months long, and the rest is summer". And it's quite a cold winter, too. On the other hand, they are aware of milder climates and more comfortable ways of life: many of them went for vacations to Russian cities and to the southern sea resorts. After all, the statement quoted above, about sticking to communism as a traditional Yukaghir value is by no means an accident: the Soviet system did give Yukaghir people lots of opportunities they used not to have before the Russian revolution, including, among other things, a system of affirmative action in higher education. And last, but not at all the least, recall this speech about not willing to listen to Russians any more. It was really not my place to talk about the value and significance of preserving the Yukaghir languages

and the traditional Yukaghir communities if this contradicts, as it does, what they, themselves, think best for their children. After all this history, all I could really do was listen and record.

And these considerations bring me back to the quotation from the manifesto of the foundation for endangered languages that I used as the epigraph for this part of my talk, about the expected loss of "pride and self-identity". Believe it or not, but the moment of reading this sentence was the first time in my entire life that I thought of myself as a potential hereditary speaker of a virtually lost language, namely Yiddish in its Eastern European variety, only a couple of generations removed from those speakers of this language who consciously decided to interrupt the mechanism of transmission, turn to Russian instead, and raise their children as native Russian (and Russian-educated) speakers. Am I supposed to have lost any sort of pride or self-identity as a result? -- I asked myself. Were my parents? Weren't they just speakers of Russian, members of the Russian speech community? Just because of their partly Jewish ancestry? If not, then what about the Yukaghir? The Yukaghir people of my generation, and their children, too, are just as good speakers of Russian as I am, perhaps of a local vernacular somewhat more distant from the literary standard, but that's exactly what they are striving to change. Why are they supposed to have any less pride or self-identity than I have? Only because of their different ethnic identity, because of their partly Yukaghir genes? The point is, the speakers of an endangered language are always, by definition, also speakers of another, not endangered, one. And the talk by outsiders (even if by linguists with the best intentions in the world) about loss of pride and self-identity means, in effect, that they are, for some reason, not considered as rightful and equal members of this larger language community. Which, I believe, is absolutely inappropriate.

To sum up this quasi-personal introduction, among all the various state-sponsored policies implemented in the region, the most detrimental for the survival of Yukaghir was the one based on one of the best intentions possible, namely, to provide education and equal opportunities to everyone. For better or for worse, the value of Russian-style education has been internalized by the Yukaghir. As a result, the idea of preservation of the Yukaghir languages, which requires, among other things, preservation of the traditional Yukaghir communities, conflicts with individual conscious decisions of the majoirty of the Yukaghir parents about how to raise and educate their children. These

children, after all, should have just the same right and opportunities to become doctors, engineers, professors of humanities, as everyone else – their options should not be limited by the noble goal of the preservation of Yukaghir. Of course, I don't mean to say that the situation is the same for all endangered languages. The human rights and the language preservation need not be in conflict. But this is how it is for Yukaghir, and I am afraid this is hardly a unique situation.

2. Endangered languages and linguistic diversity

> *"At this point in human history, most human languages are spoken by exceedingly few people. And that majority, the majority of languages, is about to vanish."*
>
> The manifesto of the foundation for endangered languages

The wording of the opening statement of the manifesto of the foundation of endangered languages strongly implies that both the small size of the majority of language communities and the impending complete shifts of these communities to other languages in the near future are characteristic of "this point of human history", which is seen as being somehow unique in this sense, one of the unfortunate consequences of globalization. It seems, indeed, to be the view widely received in the linguistic community that this situation is abnormal, unnatural, unusual, indeed something like a catastrophic singularity in the history of the language population. This view, I believe, results from misunderstanding of the processes that have been shaping the language population from the time immemorial.

Let us begin with the distribution of community size. Although not explicitly said, it seems widely implied that the "normal" distribution of community size (in the sense of what is usual and "healthy" as it were) is indeed also something like normal distribution in the terminological sense, i.e. it must follow a familiar bell-shaped curve, with the vast majority of communities having a size close to the average and few being much smaller and much larger, respectively. It is in contrast to this implicit norm that the situation actually observed, with the majority of communities being considerably smaller than the average is perceived as abnormal and catastrophic. However, it is well known that the settlement sizes conform to quite a different distribution, the so-called Pareto, or "power-

law" (it is a distribution in which the number of sets with *n* members is proportional to a negative power of *n*). This distribution better known to linguists as Zipf's law. Oversimplifying the matters a bit, this distribution would occur whenever the speed of growth, i.e. the likelihood of a set increasing, increases proportionally to its current size, that is, there exists a kind of positive feedback for the growth of a community. This is indeed the case for human settlements, and this is, in all likelihood, also the case for language communities. There are no reasons to expect a normal-like distribution in this case, just as there are no reasons to expect a normal-like distribution of word frequencies. It is much more likely that the majority of language communities have been small, and, furthermore, that their sizes have followed some variant of the power-law distribution, throughout the human history. Of course, the parameters of the distribution have been changing. Yet this does not change the basic fact: the majority of languages have spent most of their history being spoken in relatively small communities. The only thing unusual about this point in history is that the size of a language community is no longer constrained in terms of geographical distance between its subcommunities. The largest language communities now are much larger than the largest language communities in the past. The unique feature of our time is the existence of huge communities, not the preponderance of tiny ones.

What about the state of being endangered, the disruption of language transmission, the population shifts? It cannot be denied, of course, that the number of different languages used to be increasing at some earlier periods of human history, nor indeed that it is rapidly decreasing at the present time. However, whether the number of languages rises or falls within a certain time interval depends on two factors: it is not only the number of vanishing languages, but also the the number of new languages coming into existence. Each period in the history of the language population was characterized by a "death rate" and a "birth rate", that is, the fraction of languages vanishing within a certain time interval and the fraction of language communities splitting within the same time interval. Rephrasing this in other terms, at any point in history, there was a certain probability for a new language to come into existence and a certain probability for a language to vanish within a certain period of time. In particular, it is possible to estimate these probabilities for this point in history. The probability of language death (say, within the next several decades) can be estimated as (roughly speaking), 10% (of course, the actual estimates differ, yet we are interested only in rough figures at the moment). The current birth rate, on the other hand, is obviously close to zero. Of course, people can still successfully build political boundaries that would separate language communites, yet the fact is that the humankind has practically filled the available space, and with the modern

means of communication and transportation, language communities sharing the same language are very unlikely to distance themselves from one another sufficiently for intercommunication to cease.

The question is, how does this situation differ from the previous periods of the human history? Our ability to estimate the birth and death rates in the language population for other historical periods is obviously very limited, yet some essential properties of this process can be inferred from the genealogical structure of the modern language population and the general properties of the birth-and-death process. Two empirical facts are important here. First, we know that all modern languages belong to approximately a hundred of genetic stocks with the time depth of about eight millenia. This means that only about one hundred languages that used to exist, say, ten millenia ago have surviving descendants at the present time. On the other hand, the estimated number of separate hunter-gatherer communities housed by the earth at that time is counted in thousands, rather than in hundreds (about twelve thousands according to Mark Pagel). The obvious implication is that the majority of their languages, along with all their possible descendant languages, vanished. Secondly, we know the current distribution of the language family sizes (for various time depth), which is, by the way, also an instance of the power-law distribution. I'll spare you the math here, and simply say that these facts entail that the death rate in the language population had been roughly equal to the birth rate before the latter began to decrease and eventually became virtually non-existent; and judging from the size of the largest genetic groupings of various time depths, this means that both rates had been rather high. In other words, the human history has been equally rich in splits of language communities and in population shifts. Mark Pagel, using the same model of birth-and-death process, estimates the number of languages ever spoken on the earth as somewhere between 130,000 and 500,000. Which means, of course, that that virtually all of them vanished.

Other types of empirical evidence corroborate this conclusion: there are written records of some vanished languages, and it seems obvious that such records exist only for a tiniest fraction of the languages that used to be spoken in the past and then disappeared for one or another reason. Moreover, it is widely recognized that the biological (genetic) relationships between communities do not match the diachronic (genetic) relationships between their languages, which means that the language transmission mechanism has been disrupted again and again, with languages and genes going their separate ways, and most of these disruptions have not been recorded in any sort of surviving oral or written history. In fact, recent advances in tracing human genes seem to have shown more striking discrepancies between these routes than expected, which means that the

population shift (i.e. the language death) has been a much more common phenomenon than previously thought. It is very likely, therefore, that the singularity of this point in history – catastrophic as it is for the future linguistic diversity of this world – lies simply in the fact that the birth rate has become close to zero, rather than in a considerable increase in the death rate: it might have increased, but not as dramatically as the birth rate decreased.

When we talk about endangered languages, especially about the need of public policies and programs that might help preserve such languages, we seem to think about two different values, often without clearly discriminating between them. One is the value of each and every specific language; and the other is the value of the linguistic diversity itself. The rest of my talk focuses on the former, yet to conclude this general section, I would like to draw one somewhat paradoxical conclusion concering the latter, the value of linguistic diversity as such, beyond the value of each specific language. Looking backwards from our point in history, it lies in the accumulated variety in knowledge, world views, cultural and poetic inventions embodied in the existing languages, and thus can be thought of as the sum total of the value of each language. Looking forwards, it lies in keeping different paths of language evolution open: in "choosing" one path of change, each language closes many others, which might be "explored" by other languages, thus enriching the human culture in general. "The success of humanity in colonizing the planet, -- states the manifesto of the foundation for endangered languages, -- has been due to our ability to develop cultures suited for survival in a variety of environments." Although we hardly need to colonize the planet any further, we presumably still need (and hopefully possess) this ability and the resulting cultural variety. Moreover, if we really cherish the linguistic diversity we have inherited, we would wish to pass something comparable to our distant descendants.

One must bear in mind, however, that, qualitatively, the linguistic diversity has never been a stable phenomenon, but rather a constantly renewable one. Our valued ability is not to "freeze" what we have developed, but to change, to develop it further and further. Thoughout the human history we have been constantly renewing the linguistic diversity, by simultaneously decreasing it through population shifts and increasing it through language divergence. The paradoxical conclusion from the evidence presented in this section is based on the fact that, at the present time, the linguistic diversity rapidly decreases primarily because our communities ceased to split. The inevitable implication is obvious: the task of preserving the overall measure of linguistic diversity for the future generations, insofar as it requires conscious individual choices and specific public

policies, should be carried out not only by the members of the small endangered communities (who, frankly, have lots of other problems on their hands), but primarily by the speakers of large flourishing languages. If we wish to sustain linguistic diversity for the future generations, it would seem necessary to stop intercommunication between geographical varieties of such languages and thus allow them to diverge: for example, one can begin with suggesting that the Americans, the British, and the Australians stop talking English with each another. This is, after all, the only way to restore the "normal" mechanism of maintaining the overall linguistic diversity of the world. This advice may well sound ridiculous, but apparently just as ridiculous as the advice to stop talking Russian and/or Yakut to their kids in order to restore the normal language transmission mechanism does to the Yukaghir.

3. Unique linguistic features: Yukaghir and beyond

> *As each language dies, science, in linguistics, anthropology, prehistory and psychology, loses one more precious source of data, one more of the diverse and unique ways that the human mind can express itself through a language's structure and vocabulary.*
>
> The manifesto of the foundation for endangered languages

For linguistics the greatest loss of information associated with a vanishing language is the loss of its unique linguistic features, of phenomena that would just never cross a linguist's mind as at all possible had they not been attested in one or another language and that, for one or another reason, happen to exist only in one language or in a tiny fraction of the world's languages. If the rarity (or uniqueness) of a linguistic phenomenon is looked at from the diachronic vantage point, we can distinguish between two general causes of why it might be rare. First, the type can be inherently unstable for some reason; that is, if a phenomenon arises in a language, it tends to quickly change into something else or disappear, i.e. its expected "life time" is short. If such a phenomenon is likely to arise, then its loss is not, strictly speaking, detrimental to linguistics: it will be found in another language, if not now, then later. The genuine, virtually irreplacable, uniqueness or rarity, is associated not with the instability, but with the low probability of a type coming into existence. This can be the case either because the type can arise only in a certain

combination of circumstances (as a result of a series of changes), each of which is not uncommon, yet the combined probability is low; or because it requires a single change from a recurrent situation, but this change itself is highly unlikely. I would like to illustrate these possibilities with two quite different Yukaghir phenomena, its information-focus system and its expression of perception.

Yukaghir happens to be best known for typologists for its unusual system of grammatical focus. What is interesting is that this system obviously originates in a quite cross-linguistically common and well-known strategy of focus-marking, a cleft-like structure with the nominal focus in the predicative form and the remainder of the clause encoded like a relative clause. Here is an example of a focus construction, from Tundra Yukaghir, which shows how similar to a cleft it looks:

Tundra Yukaghir, S-Focus construction

(1) … *qahime-**leŋ*** *kelu-**l***
raven-PRED came-SF
'… A RAVEN came.'

The nominal suffix in boldface is identical to the predicative marker (so, if this NP had not been followed by a verb, the sentence would mean "It was a raven".). The verb form is identical to one of the forms used for relativization (so if the word order had been reversed, we'll get "a raven that has come."). In terms of information structure, this construction differs from a typical cleft primarily in that it is grammatically obligatory in the context of so-called narrow focus, e.g. in question-answer pairs. Also, the Yukaghir focus construction is widely used in sentences with so-called broad information focus, including both the NP and the verb. For instance, (1) is not a narrow-focus structure, it is a so-called thetic, or all-new sentence (the implied question here is "What's happened?", not "Who came?"). This functional property is not unheard of for cleft-like structures in other languages; in Yukaghir, however, this construction is used more broadly than usually because there are no linear and/or intonational alternatives.

The cleft-like focus-marking strategy was apparently grammatically constrained from the very beginning, simply because of the general constraints on relativization (which would have excluded peripheral participants). By the present time, however, these grammatical constraints have presumably grown stronger; more specifically, the

construction with predicative marking is available only for the sole participant of an intransitive clause (S), as in (1) and for the patient-like (or thematic) participant of a transitive clause (O), as in (2).

Tundra Yukaghir, O-focus construction:

(2) *met* *ten'i* *n'awn'iklie-**leŋ*** *toŋore-**meŋ***
I here polar.fox-PRED chase-OF.1|2SG
'I have been chasing A POLAR FOX here.'

Most importantly, this strategy is not available for the primary (agent-like) participant of a transitive clause (A), which could have hardly been the case for the original cleft.

I believe that the diachronic scenario that has brought this constraint about can be outlined as follows. As the functional (information-structure) range of the predicative focus construction was extended to the broad-focus structures, the frequency of O-focus sentences like in (2) must have increased dramatically, simply because O belongs to a broad information focus much more often than any other core participant. This was not the case for A-focus sentences, since the A-participant corresponds, much more frequently, to the topic of its sentence. As a result, the predicative NP was linked to the O role in the overwhelming majority of transitive sentences containing such an NP. At the present time, for example, 97% of transitive sentences with a marked nominal focus are O-focus sentences (this figure takes into account a morphosyntactically quite different A-focus construction of the present-day Tundra Yukaghir, which I'll describe shortly, but the distribution was presumably similar during the hypothetical stage of development when the predicative focus construction was still available for A). This means that the predicative nominal marker must have become highly predictive of the participant role, that is, if this marker was used, then the listener could be almost sure that the corresponding NP is an O-participant. Since there were no other role-discrimination devices which could counteract this "default" interpretation, the speakers would avoid using the predicative marking for A, since such a usage was very likely to mislead the listener as far as the roles of participants are concerned. In other words, the predicative marker was gradually reinterpreted as an object marker, and the predicative A-focus construction vanished. An additional piece of evidence for this hypothesis comes from the

fact that one of the predicative markers came to be used as an accusative marker in other constructions as well (see examples in (3)).

Whereas the predicative focus construction resembles a cross-linguistically recurrent construction type, the A-focus construction (which exists only in Tundra Yukaghir, not in Kolyma Yukaghir) seems really typologically unusual. More specifically, its major feature is the total and absolute absence of any morphological markers whatsoever; in other words, it is opposed both to the O-focus sentence structure and to the neutral structure (without an explicitly marked nominal focus) as the "null-marked" structure. In the following example, an A-focus sentence in (3a) is compared with its neutral alternative in (3b).

(3) a. *nime-le* *aq* *pajp* *wie-nun*
dwelling-PRED only woman make-HAB(AF)
'Only WOMEN install dwellings.'
b. *pajp* *nime-le* *me-wie-nunnu-**m***
woman dwelling-PRED AFF-make-HAB-TR:3SG
'Women install dwellings.'

There is no difference in the form of A itself (it remains unmarked), and the sentences are distinguished by virtue of the null form of verb in the A-focus construction. At the first sight, this seems really remarkable, because the A-focus construction is the least frequent and the most functionally "marked" one of the whole paradigm: it is used only for "narrow focus" structures, e.g. if there is a focus of contrast on A (as in (3a), where women are opposed to men, who never do the job of installing dwellings). Indeed, one would hardly find the option of total absence of any overt marking whatsoever in typological overviews of focus-encoding strategies. Yet, from another perspective, the difference is expected and predictable: the absence of cross-referencing A-person markers on the verb is a rather logical property of an A-focus construction. Indeed, such markers usually result from grammaticalization of a topic construction (in this case, with A-topic). That is, they represent the end-state of a well-known and recurrent (topic-to-subject) grammaticalization path. It seems plausible to hypothesize, therefore, that the A-focus construction is simply the last relict of the former plain transitive construction, which had been pushed to its current functional "niche" by virtue of functional expansion of the two new transitive constructions, the O-focus construction and the A-topic construction.

Obviously, the information structure with a narrow focus on A would naturally become the last functional domain not subsumed by an extending A-topic construction. Then, the "null" A-focus in Tundra Yukaghir construction emerges as an unusual result (or an unstable stage) of a quite usual development path.

My second story is about an unusual (or even unique) path of language change, and it belongs to a completely different domain, the lexical domain of perception. The basic Yukaghir verbs of perception (Kolyma Yukaghir) are represented in the table, which is based on a semantic grid for sensory lexicons introduced by Viberg (1984); it comprises sensory modality and the type of situation construal, including the choice of "base" (primary participant).

Table 1. Sensory verbs in Kolyma Yukaghir

	Experiencer-based activity	**Experiencer-based experience**	**Stimulus-based experience**
Sight	*juö-de-*	*juö-*	***jed-, medu-***
Hearing	*mež-že-*	*medi:-, med-ej-*	*medu-*

A shown by the table, a verb of hearing can be extended to signify visual perception. This polysemy pattern is unusual in itself, but the direction of extension was actually considered impossible. In the first cross-linguistic study of intrafield extensions in sensory lexicons, Viberg (1984) contends that a verb for SEE can undergo semantic extension to subsume HEAR, but not vice versa. Viberg's study has been recently extended to Australian languages (missing from his original sample) by Evans and Wilkins (2000), who support this claim and, furthermore, suggest that constraints on intrafield extensions in sensory lexicons are determined by, as they put it, "neurophysiological givens (the structure and experience of basic perception)" – in contrast with transfield projections, which are open to cultural variation (Evans and Wilkins 2000: 547). It is this claim that Kolyma Yukaghir, as I'll try to show, falsifies.

At this point, it is necessary to underline the distinction between two semantic roles in an event of perception, **stimulus** (an entity or event being perceived) and **source** (the primary participant of an event being perceived). This distinction is relevant primarily for the auditory modality, since seeing an event generally implies seeing its participants. This is not the case for hearing, as reflected, in particular, in the fact that the Yukaghir auditory verbs cannot take the Source NP as a core participant; for instance, it is

impossible to say that someone *heard the birds*, but only that they *heard the birds' song*. Only a sound can be heard, not the thing emitting it. The Stimulus-based constructions are shown in (4); the experiencer always remains implicit.

(4) a. *jel'o:d'e* *okno-ge* ***jed**-i*
sun window-LOC visible-INTR(3SG)
(lit.) 'The sun was visible in the window.' (= 'The sun was shining, thereby making itself visible (to me)').

b. *ta:t* *shoromo* *azhu:-k* ***met**-t'i-l*
then person word-FOC heard-DLMT-SF
(lit.) 'Then a person's word became audible (to her).' (= 'Someone said something, thereby making her hear their words').

However, there is also a source-based construction, compatible only with the verb *medu-* and its aspectual derivatives. In this construction, *medu-* serves the main predicate, the source is the sole core participant, and the verb signifying the stimulus (i.e. the sound, the event being audible) must be present and takes the form of Instrumental Action Nominal. The literal meaning of this construction is (approximately) "The Source makes him/herself heard by way of doing X (Stimulus)', e.g.:

(5) *kel-delle* *tude* *touke* ***an'n'e-l-e*** ***medi-s'***.
come-SS:PFV 3SG dog speak-ANR-INST be.heard-INTR(3)
'He returned (home) and heard his dog barking.' [lit. 'His dog was heard by way of barking.']

Thus, the source-based construction overrides the lexical selection constraint on the verb *medu-*, which requires that its subject refer to a sound or at least to an event associated with a sound. In this construction, entities (e.g., a dog, as in (5)) can also "be audible"), yet their audible activity must be specified by means of the Instrumental Nominal.

Now the source-based construction can also be used to describe **visual** experiences, whereby the verb for "become audible" is extended to mean "become visible, appear". Before we turn to the relevant examples, however, it is necessary to sketch the properties of a common experiencer-based construction, which is used when an event of perception is reported in order to **introduce** information about the event being

perceived (as in *And then he saw that…*). In Yukaghir, this situation calls for what may be referred to as "event-introducing experience construction", which formally resembles clause chaining: the event of perception is described by a non-finite, different-subject clause with an experiencer-based verb of perception; the stimulus, i.e. the event being perceived, is described in the finite clause, but must be linked to the object slot of the non-finite clause. The following examples illustrate this construction for two primary sensory modalities:

(6) a. ***juö-ŋi-de-ge*** *oqonastie pulut abuda:-l'el*
see-PL-3-DS Afanasiy old.man lie-INFR(3SG)
'They saw that Afanasiy the old man was sleeping (there).' Lit. 'As/while they saw, Afanasiy the old man was sleeping (there)'

b. *ta:t irki-d'e mikolaj-die* ***medi:-de-ge*** *loci-n*
then once Nick-DIM hear-3-DS fire-AT
shanaha-k ***medu:-l***
crackle-FOC be.heard-SF
'Then once Nick heard fire crackling.'

Note that in (6b) the event of perception is referred to twice, by the different-subject form of the experiencer-based verb (***medi:-de-ge***) and by the finite stimulus-based verb (***medu:-l***). This "double marking" of the sensory modality opens the possibility to encode two different aspects of experience within one sentence.

More specifically, in the context of the event-introducing construction, the source-based construction with *medu:-* is commonly used for visual experiences, whereas the actual sensory modality is specified by the different-subject clause, for example:

(7) a. *kebej-delle* ***juö-ŋi-de-ge*** *alandin tude mahil-gele*
go:PFV-SS:PFV see-PL-3-DS A his coat-ACC
el-uldos'e-t kel-le ***medi-s'***
NEG-hang-SS:IPFV come-ANR:INST be.heard-INTR(3)
'They went there and **saw** that Alandin was coming closer, his coat not hanging.'

b. ***juö-de-ge*** *okno-ge pon'qo piede-l-le* ***medi-s'***
see-3-DS window-LOC light burn-ANR-INST be.heard-INTR(3)
'He **saw** that there was light in the window (lit. light burning).'

The question arises, why the auditory verb appears in such contexts at all? For instance, why Alandin in (7a) is, literally, "heard by way of coming closer" (when he is in fact

seen), rather than simply "coming closer"? As it seems, the function of this construction is to signal that the source is being perceived because of their own action(s). Compare examples (6) and (7a): in (6), the protagonists saw the old man not because he was sleeping or, for that matter, not because he was doing anything, but because **they** came closer to his campsite. In contrast with this, Alandin became visible to his associates because **he** was coming closer, that is, in a sense, he **initiated** the event of his being perceived. More generally, the construction signals that the experiencer's attention is attracted to the source because of the stimulus it produces.

This observation suggests that Kolyma Yukaghir categorizes primary sensory experiences according to two interrelated semantic parameters: **sensory modality** (*SEE* vs. *HEAR*) and **initiator** (experiencer vs. source). The link between these parameters is motivated by the fact that a prototypical hearing experience is initiated by the source (an entity must emit a sound in order to be heard), whereas the seeing experience is neutral with this respect (an entity can be seen without initiating any events). Since a visual experience also can be initiated by the source, the source-based construction is extended to subsume such experiences. It seems plausible to hypothesize that this process has been facilitated by the context of event-introducing experience construction, which allows the speaker to specify the actual sensory modality in another slot. It appears, however, that the extension of "hear" into the visual field is affects other auditory constructions as well, as in the following example:

(8) *medin* ***me-medi:*** *qojl* *mon-d'e* *shoromo*
just AFF-hear(1SG) God [say-REL] person
'It is the first time that I **see** someone who prays God.'

As mentioned above, the verb *medi:*- in its prototypical meaning requires that the object slot be occupied by the stimulus; thus, the source NP in the object slot in (8) ("person") can be considered as a piece of evidence for the semantic shift reflected in the translation (the idiomatic translation is based on the original Russian gloss). On the other hand, the sentence obviously implies that it is the source's action (praying) that attracts the experiencer's attention, i.e., this usage of the transitive verb *medi:*- appears to occur under the semantic conditions established for the source-based construction.

To sum up, I hope to have shown that Kolyma Yukaghir is undergoing the process of *HEAR* > *SEE* extension. Although it would be hardly plausible to "predict" with any degree of certainty that *med-* will eventually replace *juö-* as the basic verb of visual perception, yet this case study demonstrates the theoretical possibility of an intrafield semantic extension which may eventually lead to such a shift. It should be stressed that the **semantic** motivation of the attested extension – that is, the fact that an auditory experience implies some activity of the source, while a visual experience can but need not be associated with the source's activity – has nothing culturally specific to it; rather, to repeat Evans and Wilkins formulation once more, it is determined by "the structure and experience of basic perception" (2000: 547); of human perception, as a matter of fact: indeed, bats and dolphins are able to "hear" things, not only sounds. Yet this aspect of human perception appears to be rarely reflected in the lexicon, i.e. it goes "unnoticed" by most languages.

4. Listening and learning

> *[...] when language transmission itself breaks down, especially before the advent of literacy in a culture, there is always a large loss of inherited knowledge. Valued or not, that knowledge is lost, and humanity is the poorer.*
>
> The manifesto of the foundation for endangered languages

"The humanity is the poorer" is the key phrase here: obviously, stating that the loss of languages is a catastrophy for linguistics and related sciences is not enough for the general public. There must be something beyond this, something directly valuable for the humanity, and it is, to a large extent, our duty to demonstrate this in a convincing way. Yet the very idea of knowledge embodied in languages appears to imply that this knowledge can only be shared by learning each other's languages, and our brains put quite a strict limit on this way of sharing knowledge. In this sense, if, say, Yukaghir does embody some unique inherited knowledge, this knowledge is also firmly enclosed in it,

not for anyone outside the Yukaghir community to see and benefit from. And here, it would seem, is the rub: one cannot become poorer if they lose the chance to acquire knowledge they would never have acquired anyway. The question is, therefore, whether we can try and learn as it were to extract knowledge from the code in which it is locked up, and in such a form that it could be shared across languages.

As an illustration of my attempts to do just this, I'd like to conclude my talk with another story about the role of *listening* in Yukaghir. As far as can be judged from cross-linguistic studies available to date and from my own unsuccessful attempts to find parallels in other languages, this phenomenon is rare and may be even unique. What, in my view, sets this phenomenon apart from purely linguistic things like an unusual imperative paradigm, is that it embodies a cultural invention (and, possibly, a certain aspects of the world view) that can, it seems to me, be shared with the speakers of other languages without actually teaching them the language itself. In other words, I believe it is phenomena of this kind that might be interesting not only to linguists, because they represent not just unusual ways of coding familiar semantic structures, but unusual semantic structures, and so can offer novel ways of viewing the world. I think it is the cultural stories of this sort that should be told in order to demonstrate the unique value of each language, and also actually to learn from the speakers of a disappearing language.

The story has to do with how the future is thought of and construed in the grammar. The Future vs. Non-Future is in effect the only fully grammaticalized (i.e. obligatory) tense opposition in Yukagir. If the finite verb of an independent clause is unmarked for tense, then this clause refers to a specific real event, which is either going on at the time of speech or took place in the past. There are three ways to describe a possible future event. One, which is most semantically close to what is usually called "Future" is the suffix ***-t(e)-***. It's future meaning is illustrated in (9a).

(9) a. *mer-u:-**te**-jeŋ*
AFF-go-FUT-INTR.1SG
"I will go."

b. *neme-le* *t'en'i-**te**-mle?*
what-ACC laugh-FUT-OF.3SG
[-- He was laughing at our mother's death!] "What could he laugh at?"

c. *ma:rqad* *ile* *kedel-ha* *l'e-**te**-j.* *konme-gi*
one deer RFL-LOC be-FUT-3SG mate-3SG
talaw-ŋin' *u:-**te**-j.*

wild.deer-DAT go-FUT-3SG
[They used to train two domestic deer.] “One deer would remain with them, while the other would go to the wild deer.”

The same form can be used with reference to the past, either to express the modal meaning of possibility (as shown in (9b)) or for habitual events (especially sequences of them, see (9c)). Another way of talking about future is to use the prefix ***at-***, the Irrealis marker. The use of this form with reference to the future is illustrated in (10a); its meaning includes the existence of some conditions, which are not known to be met by the time of speech (as, in this example, the listener's consent).

(10) а. *mer-**at**-juore-jl'i*
AFF-IRR-play-1PL
“We might play.”
б. *el-aji-l'el-a-qane* *mid'ek* *mer-**at**-upa:-t'i:-j*
NEG-shoot-INFR-PL-COND HYP AFF-IRR-hold-DLMT-INTR.3SG
“If you hadn't shot (that deer), she might have lived a little longer.”

This form most commonly appears in conditional sentences, and can also express counterfactuality (as in (10b). It seems worth stressing, in anticipation of the future discussion, that neither of these forms has a (purely) deictic meaning, i.e. they can but need not indicate the time of event with respect to the time of speech.

In contrast to this, the third way to talk about future is purely deictic, i.e. the reference to a time period after the time of speech belongs to its semantic invariant. The marker is a suffix, *-mori-* in Tundra Yukaghir and *-možі-* in Kolyma Yukaghir, which I'll call “providential”.

(11) а. *mid'ek* *mit* *uo* *samqara:l* *legul-gi* *quodeban*
HYP our child table food-3SG which
kejgudeŋ *amutne* *sahane-**mori*** *ewri* *n'a:rt'itneŋ*
in.future good.ADV live-PRVD(3SG) or bad.ADV
[The parents used to come to visit their newly-wed daughter, in order to check]
“what kind of food she has, whether she is [destined] to live well or not.”
б. *qad'ir* *me-t'antejre-ŋ,* *me-jabe-**mori***
now AFF-unable-TR.1SG AFF-die-PRVD(3SG)
[The shaman said:] “I can't (persuade the spirits to make her live longer), she is [marked] to die.”

The semantic distinction between the plain future (in its future meaning) and the

providential subsumes two major factors which can, at the first sight, seem to contradict each other. On the one hand, the providential is as it were less “hypothetical”: it construes the statement about the future as based on some hard evidence in the present, which is often explicity introduced before the providential clause itself (as in examples (11)). In (11a), for instance, the quality of the daughter's future life is evaluated on the basis of the quality of the food available at the present time; in (11b), it is the shaman's communication with the spirits that serves as the basis of the prediction. On the other hand, the plain future has the truth-value conditions as expected for a well-behaved future tense: it'll turn out to be false if the event doesn't happen. This is not the case with the providential: it is, in some sense to be figured out, a statement about the world as it is at the time of speech. Something can change, so that the event doesn't happen, yet this doesn't change the truth-value of a providential utterance. For example, the utterance of (12a), which states that as the things are at the time of speech, the speakers' brother is not expected to be useful, is followed by a discussion of how this can be changed (and, indeed, some attempts to change it).

This property obviously associates the Yukaghir providential with what Comrie calls “prospective”, i.e. with the constructions like *be going to* in English. However, it is quite a different beast. It would be easier to demonstrate this by contrasting the providential with the analytical prospective form, which is also present in Yukaghir: the latter is built as a combination of the Dative form of the Action Nominal with the auxiliary verb *l'e-* “be”. It is illustrated in (12b).

(12) a. *tuŋ* *mit* *emd'e* *ed'il-e* *el-wie-**mori***
this our younger.sibling life-ACC NEG-make-PRVD(3SG)
“Our younger brother won't do anything useful out of his life.”

b. *tet-uoldeŋ* *quodeŋ* *kode-n'eŋ* *el-nied'i-t'uon*
you-TOP [how person-COM NEG-talk-PRV]
*welte-**l-ŋin**'* ***l'e**-me-k?*
hang-AN-DAT AUX-TR-2SG
“And you, are you going to hang someone without having talked to him?”

Although the semantics of this form is extended to cover roughly the same range of meanings as the English prospective, yet it retains the (presumably original) meaning of intentional semantics if the actor is human, like in (12b). And herein lies the first difference between these forms: the providential has nothing to do at all with the intentions of the actor. More broadly, whereas these forms (providential and prospective)

share the property of describing a present state of affairs by way of invoking a future event that somehow follows from this state, they differ in what the subject of this state is: the prospective describes a state of the actor of the future event, whereas the providential is rather about the state of the external world. Another important difference, of course, is that the providential is deictic (and the prospective is not).

Morphologically, then, the providential exhibits a slightly irrigular behavior: it belongs to two distinct paradigmatic oppositions. As a matter of fact, it belongs not to two, but to three distinct oppositions, the third one being that of evidentiality. Oversimplifying the things a little bit, it can be said that the unmarked non-Future form in Yukaghir indicates that the speaker, or the most salient protagonist, witnessed the event being described (with the exception of discourse contexts that indicate the opposite by other means). Otherwise, the verb must be marked by the inferential suffix, *-l'el-*. The semantic range of this suffix subsumes not only the so-called "hearsay" evidential, but also all contexts in which the information about a past situation is inferred from a knowledge about another situation, including its direct result. In (13), for example, the information about the event comes from witnessing the meat which had been left behind by the actors.

(13) *tada: titte t'u:l-hane jawnuo pon'i-**l'el**-ŋa.*
there their meat-ACC all leave-INFR-TR.3PL
"It turned out that they had left all their meat there."

In other words, the Inferential suffix indicates that information about an event has been received by the speaker (or the protagonist) later than the event itself took place. The providential expresses the opposite meaning: information about an event being somehow received by the speaker prior to the event itself.

To sum up, viewed as a grammatical meaning, the providential is defined by three paradigmatic morphological oppositions:

- As a part of the tense/mood paradigm, it is a kind of future tense, opposed to the other future tense primarily by its focus on the present state of affairs.
- As a part of the aspectual subparadigm, it is a kind of prospective, opposed to the other prospective form in that this state of affairs is external with respect to the actor of the future event, in particular, to their intentions.
- As a part of the evidential paradigm, it expresses the providential meaning: it describes some way of getting information about events yet to come.

The point is that all these must be aspects of a single coherent way to construe the future. It will be convenient to recall at this point that the Yukaghir languages do not have the tense opposition in the usual sense. The basic tense/mood distinction is between "real" and various forms of "irreal" (including future, hypothetical, potential, counterfactual). What is traditionally called "future" is probably more adequately described as an "indefinite mood" (following Baker & Travis 1995), i.e. the lack of reference to a specific event: as I have mentioned, the same form is used for as it were generic reference to habitual events. Its future function is associated with the fact that the future itself is thought of as a multitude of possibilities, rather than as a unique "reality". In these terms, the Providential represents a construal of the future as an existing reality, not much different from the past and the present, with the only exception that it cannot be "eye-witnessed" in the same sense. Yet the existence of this kind of future tense seems to be motivated by the belief that some knowledge of it is present in the perceivable reality and only waits to be discovered.

The providential suffix is "young" and long enough for its lexical source, which is still present in both languages, to be apparent: it is one of the auditory verbs I described earlier. This seems to suggest, that the relationship between the present and the future is conceptualized in such a way that the future can be perceived, heard, or at least listened to. In other words, the providential is a grammaticalized "perceived" (and thus "real", definite) future, quite independent of our intentions, desires, or obligations. Is the providential sort of future unique, cross-linguistically? At the very least, it seems to be quite rare, so that the cross-linguistic study by Bybee and others, based on about fifty languages from different genetic stocks, yielded the following universal:

> "[…] all futures go through a stage of functioning to express the intention, first of the speaker, and later of the agent of the main verb […] The meanings that can feed the future path must be meanings that appropriately function in statements that imply an intention on the part of the speaker" (Bybee et al. 1994: 254)

I believe this universal is falsified by the Yukaghir data I presented: the providential future implies anybody's intentions no more than the inferential past. It just exists and can be heard.

On the other hand, the providential concept of "definite future" is by no means unique. As a matter of fact, my own present understanding of what this Yukaghir form actually means happened to be achieved not without some insights provided by two

European languages best known to me. The first one came from Shakespeare. I had been thinking about this form on and off, for many years, examining its contexts and looking for possible parallels in other languages without any progress. I felt that something important eludes me, and, as an afterthought, I believe I failed because I tried to as it were "rationalize" the meaning, somehow make it compatible with my own world view and my own internalized agnostic conception of the future. What helped to overthrow my rationalizations was the Shakespearean Agincourt speech by Henry V, more specifically, its very beginning: *If we are mark'd to die we are enow to do our country loss*; it suddenly became absolutely clear that this is exactly the context and the meaning which could have been rendered only by the providential form, if anyone were ever to make an attemt at a Yukaghir translation of "Henry V". One can imagine, for the sake of argument, that in a different kind of world and in a different Britain *be marked to* would be grammaticalized instead, or along with, *be going to*, turning into something quite close to the Yukaghir providential.

The second insight came from Russian, when I tried to recall whether there is anything in Russian poetry that I could invoke to recreate this "aha" moment for a Russian audience. And in fact, there is an even closer parallel. A great Russian poet Boris Pasternak (who not only wrote "Doctor Zhivago", but also translated lots of Shakespeare), wrote a poem, called "Hamlet", which invokes the metaphor of "echo", the "voice" of the future which can be heard in the present. In a more or less literal translation, Pasternak's Hamlet says: "I am trying to catch the distant echo of my life to come." I mention these literary associations, which might seem to be merely personal experiences (and which they indeed are), because I believe they actually demonstrate what we – not as linguists, but as human beings – might lose when a language vanishes: it is like loosing a poem. What is one language's poetry is another language's grammar. In poetry, after all, just like in language, one cannot really separate what is said from how it is being said.

By way of conclusion, I'd like to mention another peculiarity of the Yukaghir tense/mood system, apparently intrinsically related to the presence of the providential. There are simply no conventionalized means, neither lexical nor morphological, of expressing obligation of any sort: all kinds of semantic structures associated with *should*, *must*, *have to* and such, are simply ineffable in Yukaghir. One just does what one does, and the future comes as it comes. Which, of course, brings us back to Hamlet: *If it be now, 't is not to come; if it be not to come, it will be now; if it be not now, yet it will come: the readiness is all.* In the current historical situation, which probably represents

the last bloom of linguistic diversity, our readiness means primarily *listening* to the disappearing languages (and documenting, of course). And if we think beyond linguistics itself, then the most important thing is to distill the cultural knowledge enclosed in the disappearing constructions and lexical patterns, so as to be able to preserve and share this knowledge even if we are unable to preserve the linguistic diversity.

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