

What no word for 'tomorrow' means

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Introduction

In April 2007 Outback Steakhouse restaurant ran a full page color ad in *USA Today* advertising its “philosophy for life and for croutons.” For those pondering the possible connection between croutons and life, the accompanying text explains the supposed link as follows:

The Aborigines living in the Australian Outback have no word for yesterday. No word for tomorrow. They live for today. Coincidentally, our croutons have no yesterday, or tomorrow. They're made fresh every morning.

Unpacking all of the problematic racist assumptions about Aboriginal culture and language underlying this ad would take me far more time and space than I am permitted here. Hence I will concentrate mainly on what it tells us about mainstream views on indigenous languages more generally and why the problem of language endangerment and revitalization tends, by and large, to be misunderstood at best, and trivialized or dismissed at worst. For many critics of revitalization, my question of what no word for 'tomorrow' means gets reduced largely to an issue of words, despite the fact that much more is at stake. Even such an eminent historian as Arnold Toynbee (1987:511, 509) implied that Irish was never anything more than a “peasant patois”. Referring to an “embarrassing scantiness of material” in ancient Gaelic, he dismissed the revival of Irish as a ‘perverse undertaking which has come from the nationalistic craze for distinctiveness and cultural self-sufficiency.’ Even more recently, Luis Martínez-Fernández (2006) explained that one reason why “a person whose native language is not English can adopt

the English language as a means of communication is “the need to use a more precise language with a richer vocabulary. (English has about 900,000 words, while French, for example, has fewer than 100,000.)”

Unfortunately, these assertions about Aboriginal languages, Irish, and English represent but the tip of the iceberg of unsupported claims people are willing to accept because they fit their preconceived stereotypes. Remarks such as these indicate a widespread belief that English owes its position as world language to its rich vocabulary and precision of expression. By contrast, other languages like Irish are perceived as impoverished and lacking sufficient material for development as modern languages. Despite frequent attempts of linguists to debunk the notion of ‘primitive’ languages, what Pullum (2005) has called the ‘No word for X’ syndrome continues to resurface. The Outback ad rushes down a slippery slope from ‘No word for X’ to ‘No concept for X’ with dizzying speed.

Others, however, begin from the opposite assumption of ‘Many words for X’, only to arrive at the same conclusion; namely, that word counts reveal something significant about mental capacities or people’s world view. A widely disseminated example concerns the number of words for camels in Arabic. In his review of Ernst Cassirer's (1954) *The Philosophy of Symbolic Forms, Volume I*, Heath (1955:185), who may be paraphrasing Cassirer, states that “Arabic... has 5744 words for different kinds of camel and none for camels in general.”

In fact, what Pullum (2006b) has called the ‘Many words for X syndrome’ is the flip side of the ‘No word for X syndrome’. Actual size doesn’t really matter in such claims. What matters is who does the counting and whose arithmetic provides the metric of evaluation. The numbers do not speak for themselves when removed from the context of the larger ideology in which they are deeply embedded. Word counts are used to lend support to a Darwinian conceptualization of

linguistic evolution as a natural process of survival of the fittest. When real or invented word counts are inserted into representations of indigenous peoples (especially hunter-gatherers), as exotic but doomed, even what might in other contexts be taken as an example of richness becomes a liability. Thus, the verdict is the same whether your language has no words for ‘yesterday’ or ‘tomorrow’ or too many words for camels: you, your language, and culture have no future.

I will examine first the ‘No word for X syndrome’ followed by the ‘Many words for X syndrome’ in order to show why such misconceptions have been difficult to dislodge from public discourse. In its guise as the world’s most important language of the post-industrial global village, English of course is seen as the epitome of a modern language, the road to development, economic prosperity and freedom. What better proof than former President Ronald Reagan’s claim in an interview with the BBC that Russian had no word for ‘freedom’ (Beckwith 2005)!

Whether it be too few or too many words for X, it’s difficult for linguists and language activists to win public support for the preservation of linguistic diversity. Hitt (2004) suggests that “sentimentality about dying languages is just another symptom of academe’s mewling, politically correct minority-mongering”, while Keats (2003) complains of the “phoney nostalgia of language revivalists”. To Keats, Manx words such as *coghal* meaning ‘a big lump of dead flesh after an opened wound’ evoke the harsh life once lived by Manx speakers, while Manx revivalists leave “little doubt about their attitude towards the future when they used *jouyl*, the Manx word for ‘devil’, to mean ‘automobile’”. Yet more words, and more stereotypes. Although the preservation of both linguistic diversity and biodiversity are cast as obstacles to development, I will argue here that maintaining linguistic and cultural diversity is as important to all our futures as the maintenance of biodiversity is.

1. What the 'No word for X syndrome' means

The advertising agency responsible for creating Outback Steakhouse's ad needs an innovative way of grabbing readers' attention so that they will rush to one of their restaurants dinner. Hence, it is not really concerned with making accurate claims about Aboriginal languages that would stand up to close scrutiny as indeed, they do not. For one thing, Aboriginal languages are both diverse and numerous. Since contact with Europeans, however, the number of indigenous languages, as well as the percentage of people speaking them has fallen sharply from 100% to 13%. Perhaps only 20 remain strong today out of what may have been as many as 250 to 300 languages (McConvell and Thieberger 2001). Many of the languages spoken by Aboriginal people either in the past or at present have many words for 'yesterday', 'today' and 'tomorrow', and most have a tense/aspect system that distinguishes past, present, and future.

Indeed, south eastern Aboriginal languages are notable for encoding the time of day of an event by means of a suffix placed between the verb root and the tense inflection. In an early attempt to describe these distinctions Hale (1846) distinguished 8 tenses in Kamilarai and 15 in Wiradurei. Thus, in addition to the present tense, Kamilarai has 4 kinds of past tense (remote, recent, recent pluperfect, and hodiernal), and three kinds of future tenses (aorist, crastinal and inceptive). Wiradurei has 2 presents (present and instant present), 8 pasts (aorist, instant past, preterite, instant preterite, remote past, hodiernal past, hesternal past, pluperfect) and 5 futures (proximate, instant, remote, crastinal, and preterite). Although technically speaking, modern linguists would probably see these distinctions as combinations of tense and aspect, the larger point stands. Many Aboriginal languages possess both lexical and grammatical means for indicating the time of events (see Liberman 2007 for discussion).

The slippage from the assumption that ‘No word for X’ entails ‘No concept of X’ passes for the most part unnoticed because the claim that Aboriginal Australian languages have no words for ‘yesterday’ or ‘tomorrow’ is a stereotype embedded in a much larger narrative about Aboriginal life and culture. In fact, it is possible that the advertising agency for Outback Steakhouse got their ideas from Rolf Potts’s (2007) travelogues about Outback tourism in Australia posted on *Slate* about a month before the ad appeared.

For 40,000 years, the accumulation of possessions was considered an impediment to a lifestyle that required constant mobility within a harsh climate. ... Life was lived in the mythic moment; most aboriginal languages had no words for "yesterday" or "tomorrow."

Potts’s ideas on the subject are by no means new. Such stereotypes have been around for a very long time, and lurk quietly until they resurface. To those obsessed with whether or not a language has a word for ‘tomorrow’, it has seemed self-evident that what no word for ‘tomorrow’ means is no need or no capacity to plan for the future. Layton and Woodward (2001:5), for instance, mention the difficulties of planning development projects in the eastern Highlands province of Papua New Guinea if the people’s language has no name for the concept of future. The difficulty perhaps lies more in an impoverishment of the planner’s worldview than in a purported lexical gap in the indigenous languages. Further reflection should have told Potts and others that people with an inability to plan for the future would have found it hard to survive for 50,000 years.

The promotional blurb for CBS’s 60 Minutes story (2005/2007) about the survival of the Moken people in the wake of the Indian Ocean tsunami in December 2004 enticed viewers with a similar non-dilemma when it asked: “In a culture that has no concept of time, how did one group of people know ahead of time that it was coming?” The media reported how various Stone

Age tribes in the area, including the Moken or so-called "sea gypsies", a nomadic group of hunter-gatherers living on islands in the Andaman Sea off Thailand, knew that the tsunami was coming even though they had never experienced one before. They fled to higher ground or went further out to sea long before the first wave struck so that not a single one of them was swept away. The indigenous people of the Great Andanamese tribe also knew exactly which trees would not be swept away and it was precisely those trees that stood their ground after the tsunami.

In the case of the Moken, reporter Bob Simon elaborated on comments made by French anthropologist Jacques Ivanoff, cited as "the world's foremost authority on the Moken" to the effect that "Time is not the same concept as we have. You can't say for instance, 'When.' It doesn't exist in Moken language." When Simon asked if there were other words missing from the Moken language, Ivanoff replied, "No goodbye, no hello. That's quite difficult. Imagine after one year, you live with them, and then you go. You go. That's it. Finish." To this, Simon added, "And, there are no greetings.... And since there is no notion of time, it doesn't matter if the last visit [from relatives SR] was a week ago or five years ago." As Pullum (2005) points out, "if the Moken had **no** concept of time, how would they have known to flee to higher ground **when** the tsunami was coming, rather than three hours later?" This did not occur to Simon in his leap from the Moken's lack of greetings and a word for 'when' to the assumption that they had no notion of time.

Lest readers conclude that all is otherwise well in the timeless, greetingless world of the Moken, Simon ends his story by pointing out that they do have problems. "The Burmese have turned some of their islands into military bases. And the Thais are having them make trinkets for tourists, a trend that could ultimately threaten their way of life far more than any number of

tsunamis.” Nevertheless, he assures us that “the Moken don’t seem terribly worried by all this. Perhaps that’s because “worry” is just one more of those words that don’t exist in their language.” One wonders if he actually asked any Moken what they thought of the Burmese military bases or the Thai tourist industry. Perhaps he did not have time?

Reporter Jack Hitt (2004) slides down the same slippery slope in his account of the few remaining speakers of Kawesqar on Wellington Island in the Patagonia region of southern Chile. Interestingly, here we have a language with an apparently finely discriminated sense of the past marked in its tense system, but yet another instance of a people supposedly without a future due to their nomadic past (see Beaver 2004 for discussion). Hitt explains that

because of the Kawesqar's nomadic past, they rarely use the future tense; given the contingency of moving constantly by canoe, it was all but unnecessary. The past tense, however, has fine gradations. You can say, "A bird flew by." And by the use of different tenses, you can mean a few seconds ago, a few days ago, a time so long ago that you were not the original observer of the bird (but you know the observer yourself) and, finally, a mythological past, a tense the Kawesqar use to suggest that the story is so old that it no longer possesses fresh descriptive truth but rather that other truth which emerges from stories that retain their narrative power despite constant repetition.

I am tempted to characterize this report as an example of what Liberman (2007) calls ‘journalistic dreamtime’: to paraphrase Hitt, it is a stereotype “so old that it no longer possesses fresh descriptive truth but rather that other truth which emerges from stories that retain their narrative power despite constant repetition”.

Another example of the staying power of the myth of primitive people with no notion of the future is Forero’s (2006) report about the Nukak-Makú, a hunter-gather people, who made it

onto the front page of the *New York Times* when about 80 of them turned up in San José del Guaviare in southern Colombia after they were forced to flee from their traditional home in the northwest Amazonian jungle. According to Forero, “the Nukak have no concept of money, of property, of the role of government, or even of the existence of a country called Colombia. They ask whether the planes that fly overhead are moving on some sort of invisible road.” When he asked if the Nukak were concerned about the future, Forero reports that “Belisario, the only one in the group who had been to the outside world before and spoke Spanish, seemed perplexed, less by the word than by the concept. “The future,” he said, “what’s that?” (see Zwicky 2006 for discussion). Later in the story, however, Forero relates that the Nukak do indeed have plans. Citing a man named Ma-be, who explained that they wanted to grow plantains and yucca to sell in town and use the money for other things, it is evident that at least some Nukak were aware of money as well. Some also said they wanted their children to go to school.

The persistence of these traveler’s tales brings us back to the inescapable fact that stereotypes about people are projected onto their languages and cultures. Supposed facts about the language are then used to justify beliefs about people, thus closing a vicious circle. Indeed, I regularly encounter such assumptions, even from educated people, who imagine that a language spoken in a society that is not complex technologically or politically will have a simple structure. I was shocked on returning from a field trip to Australia to be asked by a colleague at Oxford whether it was true that ‘the Aborigines’ language’ had only a few hundred words. She was not only unaware of the existence of many Aboriginal languages, but also of the rich knowledge contained in them. Only just recently, a colleague introduced me as a linguist who worked with ‘primitive languages’.

Perhaps these views have been so persistent because they are so intricately entwined with a web of other assumptions that has proved difficult to disentangle. The ‘No word for X syndrome’ is tightly entangled with the myth of the “timeless primitive”. Perhaps because modern western culture is so obsessed with time in a 24/7 world where time is proverbially money, we don’t like to be disabused of our fantasy of a world with no notion of time and no worries. This is one reason why Outback Steakhouse’s invitation into this imagined world contained in their restaurant is so seductive and compelling:

So tonight, let go of the worries of the day, and Go Outback. Live in the moment. Life will still be there tomorrow. Along with a fresh batch of croutons.

Unless you are actually in the Outback, it’s not hard to find one, because Outback Steakhouse operates restaurants in 21 countries worldwide (including Australia, Bahamas, Brazil, Canada, China, Costa Rica, Dominican Republic, Guam, Hong Kong, Indonesia, Japan, Korea, Malaysia, Mexico, Philippines, Puerto Rico, Singapore, Taiwan, Thailand, United Kingdom and Venezuela). The chain is owned and operated by OSI Restaurant Partners, Inc., a company of restaurants founded in 1988 and headquartered in Tampa, Florida. Outback Steakhouse is thus in an extremely powerful position to disseminate and perpetuate these stereotypes about Aboriginal culture and language. This is another reason why much more is at stake (no pun intended) than croutons and words.

The restaurant owners appropriate features of aboriginal culture, art and landscape to serve their own economic interests of selling food by creating a unique ambience in which to consume it. Their website with its backgrounds featuring boomerangs and kangaroos describes Outback as “an Australian steakhouse restaurant”, whose corporate culture embodies an “attitude towards life [that] is down-to-earth, laid-back, ‘no worries’”. Created by “those who believe in

hospitality, sharing, quality, being courageous and having fun!” the restaurant offers “a casual atmosphere suggestive of the Australian Outback”. The key word here is ‘suggestive’ because the reality of the Outback is quite different, and anything but casual.

The term ‘Outback’ itself reflects certain assumptions about the relations between white and Aboriginal Australians and about the imagined center vs. periphery. From the 19th century the ‘outback’ has been used to refer to any inland area remote from the urban settlements concentrated along the coastal fringes, where 90% of the Australian population lives. A significant proportion of the country's indigenous population still lives in the Outback. To white Australia, however, the Outback is alien and forbidding territory, far removed from civilization, a place that few urbanites have experienced. It is ‘the bush’, ‘the back of beyond’, ‘back o’ Bourke’ or the ‘Never-Never’. To Aboriginal Australians, it has been home for 50,000 years. The history of the Outback’s exploration by white Australians furnishes symbolic material for a foundational narrative of nationhood defined in settler terms in which there was no place for Aboriginal people. Within one hundred years of colonization most of the vast continent had been brought under British control through policies of outright extermination and forced assimilation of Aboriginal people that continued well into the 20th century. Presbyterian minister J.D. Lang saw God’s will behind white conquest when he preached in 1856 that “God in making the earth never intended that it should be occupied by men so incapable of appreciating its resources as the Aborigines of Australia” (cited in Day 1996:109).

Deeper reflection would have revealed that long before the notion of the ‘outback’ was invented and appropriated as a distinctive national symbol, Aboriginal people knew the land and its natural resources intimately from their travels across the continent, and were able to survive in relatively harsh terrain. Outback’s philosophy of life and croutons might serve you well for a

casual evening out in their restaurant, but 'living in the moment' would not prepare you for surviving in the Outback. During the second world war four survivors of an American fighter plane that crashed in northern Australia set out to try to find help. With no compass or knowledge of the bush three starved to death, with food all around them, (unfortunately for them, however, not in the form of freshly made croutons). Unlike the Aborigines, the Americans had no idea what was edible and inedible. Many of the trees and vines have parts that can be made edible if treated in certain ways. One plant, for instance, yields *mirang* or 'black bean'. After gathering the beans, the nuts are removed and placed in piles inside ovens dug in the ground. They are then covered with leaves and sand and a fire is lit on top of them. They are steamed inside in for hours or for whole days. When removed from the oven, they are sliced up with a knife made from snail shell and put into dilly bags in a running stream for a couple of days. Then they are ready to be eaten. If the beans are not sliced fine enough, they remain bitter.

Today the Outback is marketed as a tourist destination where visitors can have exotic adventures. This is where we encounter Rolf Potts again, traveling along Sandover Highway northeast of Alice Springs into some of the remoter settlements of Utopia, one of the most renowned art regions in Australia. It is here that we see another facet of the stereotype of Aboriginal people in the Outback living for today with no worries. Potts observes that the artists "live like hillbillies":

At every camp we visit, the scene is the same: trashed cars, mangy dogs, dilapidated houses, piles of garbage swirling in the wind, entire families lolling in the shade. Most startling is Jeannie's Camp, where a half-dozen families have centered their lifestyle in and around 20 or so broken-down sedans and station wagons, which they use for shelter.

There are no houses here, just dead cars, dusty clumps of trash, a few shade-hutches made from sticks and dirty blankets, and one sickly calf tied to a tree.

Potts mentions long-standing prejudice and disenfranchisement as contributing factors to the squalid scene he describes, but at the same time acknowledges that “cultural choice” is partly responsible for people living in “such primitive settlements”. Dale Jennings, who regularly buys paintings from the artists, explains: “We can pay the artists a generous compensation, but we can't force them to move into town and live a middle-class life.” At a loss to understand the artists' choice, Potts begins a long slide down the slippery slope again to the mythic moment in which Australian languages have no word for ‘yesterday, or ‘tomorrow’:

A thousand generations of nomadic heritage is undoubtedly part of the problem. In his book *Collapse*, biologist Jared Diamond notes that "the values to which people cling most stubbornly under inappropriate conditions are those values that were previously the source of their greatest triumphs over adversity." Diamond was referring to 15th-century Norse settlers using inappropriate farming methods in Greenland, but this notion could just as easily apply to indigenous Australians facing the modern world.

The analogy between Aboriginal Australians and the Norse settlers is inappropriate and misleading. It was the Inuit, who had been on the land for more than 4,000 years, who survived, while the Norse, who refused to learn from the Inuit, died out within 500 years of colonization. Nevertheless, with this depiction of Aboriginal Australians as people equipped with neither modern technology nor a modern language with a word for ‘tomorrow’, the circle of argumentation closes in on itself to the inescapable conclusion that there is no place in the modern world for people who choose not to adapt. In similar fashion, Hitt's narrative about Kawesqar makes it appear self-evident that a people mired in a finely distinguished, but

nevertheless, nomadic past, who don't use the future tense frequently, can have no notion of the future and are therefore doomed.

These ideas fit easily into a larger narrative in which indigenous languages and cultures are dismissed as primitive and backward-looking, which is then used to justify their replacement by western languages and cultures as prerequisites to modernization and progress. In the past this narrative was used to forcibly assimilate people; today the process continues often by benign neglect. Malik (2000: 16) writes, for example, "What if half the world's languages are on the verge of extinction? Let them die in peace."

Malik (2000:17) cites John Stuart Mill (1861/1869:349) on the benefits for minorities to be subsumed under larger nation-states:

Nobody can suppose that it is not more beneficial for a Breton or a Basque to be a member of the French nationality, admitted on equal terms to all the privileges of French citizenship, sharing the advantages of French protection, and the dignity and *prestige* [emphasis in original SR] of French power - than to sulk on his own rocks, the half-savage relic of past times, revolving in his own little mental orbit, without participation or interest in the general movement of the world.

Many critics of efforts to save endangered languages think in a similar dichotomizing fashion; namely, that preserving native languages means abandoning modernity, while speaking French or English means joining the modern world. Malik (2000), for instance, sees such efforts as having "much ... in common with reactionary, backward-looking visions [that] seek to preserve the unpreservable, and all are possessed of an impossibly nostalgic view of what constitutes a culture or a 'way of life'... it is modernity itself of which Nettle and Romaine disapprove. They want the peoples of the Third World, and minority groups in the West, to

follow 'local ways of life' and pursue 'traditional knowledge' rather than receive a 'Western education'. This is tantamount to saying that such people should live a marginal life, excluded from the modern mainstream to which the rest of us belong. There is nothing noble or authentic about local ways of life; they are often simply degrading and backbreaking.”

2. What the ‘Many words for X syndrome’ means

I turn now to what the ‘Many words for X syndrome’ means. Commenting on what he calls “the general public's lust for word lore”, Pullum (2004, 2006a,b) observes that vocabulary size has served widely as a yardstick for intelligence and richness of cultural experience. Indeed, it is the supposed “need to use a more precise language with a richer vocabulary” that is offered by Luis Martínez-Fernández to explain why people should adopt English. If size matters, the bigger the better, as implied in the word counts he offers for English (900,000) compared to French (100,000).

Nevertheless, if the words happen to belong to a language/culture already stereotyped as primitive, an equally powerful but opposing myth to the ‘No word for X’ syndrome comes into play. Even otherwise distinguished scholars such as Stephen Ullmann took the elaborate vocabularies used by small groups of people as evidence of mental inefficiency. In his view, having a separate word for all the things we might want to discuss would impose a crippling burden on our memory. There is absolutely no evidence for this. In any event, no language has separate words for all the things its speakers might want to talk about- not even English, with its however many millions of words, only a very small fraction of which (perhaps about 16,000) are used in everyday conversation! Nevertheless, Ullman goes on to say that “we should be no worse off than the savage who has special terms for wash oneself... wash someone else... but none for the simple act of

washing.” He is responding here to earlier accounts reporting the existence of 14 separate words in Cherokee referring to different kinds of washing.

Unfortunately, the Cherokee example became a favorite (if not also apocryphal) example, of primitive inefficiency touted by some of the leading scholars of the early twentieth century. Otto Jespersen, who passed on a version of the story, implied that the primitive mind could not see the forest for the trees. Those who cited this example and passed it on to others typically had no knowledge of the Cherokee language and had grossly distorted the data as well as misunderstood its implications. Perhaps the most famous, however, is what Pullum (1991) referred to as “the great Eskimo vocabulary hoax”. Pullum (1991:159) observes that some myths are simply too useful to give up. Thus, no one really wants to hear the truth about Eskimoan languages not having many words for snow. We are prepared to believe almost anything about a culture, language or people whom we perceive as exotic.

It did not occur to Jespersen or others who equated this supposed absence of abstract terms with cognitive deficiencies to look for similar patterns in world languages whose advanced status was not in doubt. In English, however, there is no abstract term to refer to a limb or extremity including both the arm and hand, or the leg and foot. Many Austronesian languages such as Hawaiian do have such words. Even if scholars had uncovered such facts about their own languages, it is unlikely they would have used them to argue that English speakers were incapable of abstract thought. After all, most linguists agree that English has no future tense, but no one suggests that this portends an inability to talk about and plan the future.

What is perhaps more disturbing, however, is the role played by academia and scientists themselves in disseminating misinformation. Following Martin (1986), Pullum (1991:162) concludes that the myth about Eskimos having hundred of words for snow “is based on almost

nothing at all. It is a kind of accidentally developed hoax perpetrated on the anthropological linguistics community on itself.” The original source of the claim appears to be Boas (1911), from whom Whorf (1940) took the example. Whorf’s explanation was reprinted and cited in innumerable texts, often in an inaccurately embroidered and elaborated form. Martin (1986) documented estimates as high as 400 words for snow.

Although linguists regard meaning as a matter of both words and grammar, people are firmly convinced that language is all about words. Abley (2003) seems obsessed with such differences in his travels to various places where endangered languages are spoken. In Chapter 7 entitled “The verbs of Boro”, he retreats from the field to the library, where he stumbled onto Bhattarchaya’s (1977) grammar of Boro, a Tibeto-Burman language spoken in the northeastern Indian state of Assam as well as in neighboring Nepal, Bhutan and Bangladesh. He marvels that Boro has words such as *kholab* meaning ‘to feel tedious for an odd smell’, and *zogno* meaning ‘sound produced by a mixing of mud and water when thrusting your hand into a crab’s hole’.

Pullum (2007) raises a number of valid objections to the kind of word counting found in stories about snow and camels. One is that the numbers are arbitrary and not subject to critical scrutiny or verification. They take on a life of their own and people seem willing to accept almost any number made up at random. Another is that these claims are presented as offering profound insights into the world view of peoples speaking such languages when word counts for a particular concept do not tell us anything interesting about the conceptual system of the users of that language. Most often, the numbers are presented in support of exoticizing claims about far-away nomadic peoples like Arabs, Eskimos, and Aborigines. As Pullum (1991:165) points out, “horsebreeders have various names for breeds, sizes, and ages of horses; botanists have names for leaf shapes; interior decorators have names for shades of mauve; printers have many different

names for different fonts...” He asks whether anyone would “think of writing about printers the same kind of stuff we find written about Eskimos in bad linguistics textbooks?”

Despite Pullum’s (2007) dismissal that “It is **totally boring and obvious** [emphasis in original] that one will have a variety of specialized terms for things that one’s culture has taken a long-term interest in”, there are serious questions to be raised about what happens when elders no longer transmit their languages. Elaborate culturally-specific terminologies and complex grammatical distinctions are often among the first casualties when languages become endangered (Nettle and Romaine 2000, Harrison 2007). Whether it’s words for snow, camels, reindeer or plants, we are dealing with far more than traveler’s tales of words from exotic cultures. Words do much more than name; they describe and classify. Much of what is known about the natural world lies in indigenous languages in the form of what is variously termed ‘traditional ecological knowledge’ (TEK), ‘indigenous knowledge’ (IK) or ethno-botanical/zoological knowledge.

Centuries before there were marine biologists and scientific methods of classifying fish and other marine life, Pacific Islanders were passing on orally their accumulated knowledge about the behavior of each of hundreds of varieties of fish. Hawaiians probably knew more about the fish of their islands when Captain Cook first arrived in 1778 than scientists know today. In Palau marine biologist Johannes (1981) interviewed one Palauan traditional fisherman born in 1894, who had names for more than 300 different species of fish and knew the lunar spawning cycles of several times as many species of fish as have been described in the scientific literature for the entire world. Hviding (2006:79) describes the lexicon of the traditional inhabitants of Marovo Lagoon (Solomon Islands) as containing a basic vocabulary of names for 500 plants, 70 birds, 350 fish, 100 marine shells, some 50 distinct terms for forest types, land topography and freshwater systems, and more than 70 separate terms for reef types and underwater and coastal topography.

It is hardly surprising that people who have spent their lives in close proximity with the natural world should have a rich vocabulary for naming things of importance to them, and that their knowledge should surpass that of scientists, most of whom spend only limited time in the field. Ignored by scientists until relatively recently, TEK has facilitated the organization and transmission of knowledge of local species of plants and animals and other natural resources for thousands of years in ways that promote human interaction with them. For the peoples concerned, such taxonomies have served as tools for survival in the past. But what is their role in the future? Is this just a sentimental clinging on to outdated knowledge that has seen its heyday, as some have claimed? Some linguists suggest that documentation is maybe “the best we can do” (Harrison 2007:153). Perhaps, but I will argue that there are compelling reasons to try to maintain it as a functioning resource. Our future is firmly rooted in our past.

3. Back to the future: Time for a new philosophy of life (and croutons?)

This brings me to consider at least two other possible answers to my question of what no word for ‘tomorrow’ means. Firstly, the world’s richest and technologically most advanced societies today face growing environmental and economic problems. There is an urgent need for indigenous knowledge (much of it contained in indigenous languages) not just for indigenous futures but for all our futures. Secondly, for many native youth, learning the words of the past may mean the difference between the future and having no future at all. Suicide is a choice of last resort when things go so badly wrong with identity development that youth see no viable way of linking their past, present and future selves. Solutions to these problems will require recognition that indigenous peoples are critical partners in determining strategies for sustainable ecosystem management (Oviedo et al. 2000, Ross and Pickering 2002). Beyond that, returning control over traditional land and resource responsibilities to traditional owners so that they can

continue cultural activities and practices if they so choose, leads to empowering and sustainable development.

TEK is useful and valuable to people in certain contexts, but at the same time it is dependent on those contexts for acquisition and transmission. A case in point is the erosion of the vocabulary for reindeer and the decline of reindeer herding among the Tofa of the Sayan mountains of southern Siberia. Reindeer once provided the basis for their traditional economy, but today only a single community-owned herd of 400 head survives. The youngest (and probably last) of the Tofa reindeer herders is 19 year old Dmitry A., who speaks only Russian. His father and uncle still speak Tofa and retain the traditional vocabulary used to classify reindeer in terms of age, sex, rideability, fertility and tameness. This intricate system allowed herders to describe accurately any given reindeer by referring to it with a unique label representing a combination of its attributes; *döngür* means ‘male domesticated reindeer in its third year and first mating season, but not ready for mating’. Dmitry, however, needs to explain this in Russian just as we do in English by means of a complex noun phrase listing the individual qualities. As Harrison (2007:26-29) explains, what is lost in translation is efficiency of information packaging, and with it, culturally specific knowledge adapted to the narrow ecological niche of reindeer herding in the south Siberian forests.

The information compressed into individual words like *döngür* is valuable to herders because herds often get mixed and herders need to identify individuals. Among the Saami, who also have an elaborate taxonomy for classifying reindeers according to sex, age, color and the shape of various body parts such as head and antlers, ownership is indicated by the shape of the ears and an elaborate system of earmarks consisting of ca. 20 cuts of differing sizes and shapes (Jernsletten 1997, Magga 2006). The cuts (collectively called *sátni*, which interestingly also

means ‘word’) also have names referring to their distinctive shapes and can be combined in thousands of different ways.

The Norwegian government long complained about the large and varied number of reindeer ear marks Saami herders used to identify their reindeer. While reindeer herders argued that the more earmarks there were, the *easier* it was to identify reindeer ownership, to outsiders, it was confusing and incomprehensible. Because the reindeer herding administration found it extremely difficult to determine ownership, they proposed color-coded and numbered ear tags signifying age, sex, and ownership (Burgess 1999). In effect, the government proposed a solution where there was no problem because Saami terminology and ear-marking had all along provided a precise system of identification.

Johannes et al. (2000) give five examples to show how ignoring fishermen’s traditional ecological knowledge has actually led marine researchers and resource managers to put fishery resources at risk or to compromise the welfare of resource users. The North Atlantic cod fishery’s collapse is a case in point, where a debacle in fisheries management was occasioned by biologists’ refusal to take fishermen’s knowledge seriously. Such examples illustrate the prevailing approach to natural resource management and development, which has relied heavily on a top-down imposition of western scientific knowledge and technology transfer, often without consideration of locally appropriate and environmentally sustainable strategies.

3.1 Knowledge for the future

Despite more than 250 years of scientific research, no one really knows how many species there are. Estimates vary widely between three million to 80 million or more overall. Even assuming there are only about 13 to 14 million species, more than 85% of the world’s plant and animal species have not been named or classified by modern science. That means that only about

1.75 million (13%) have been identified and described (Heywood and Watson 1995, Purvis and Hector 1995). While our planet's biodiversity may have taken 4 billion years to evolve, it may be largely destroyed within just four human generations. Some scientists estimate the rate of species extinction to be 50 to 100 times the natural background rate and it possible that this could increase to 1,000 to 10,000 times in for the next 25 years (Heywood and Watson 1995). The alarming prospect of losses of such magnitude underlie Wilson's (2000:1) argument that

solid advances in community ecology will depend increasingly on a detailed knowledge of species and their natural history, which feeds and drives theory. It follows that community ecology and conservation biology are in desperate need of a renaissance of systematics and natural history.

Scientists can no longer afford to dismiss TEK as outdated and primitive. In Palau's tropical waters the number of fish species probably approaches 1,000. Using conventional methods of scientific research, it would take decades to accumulate enough information to manage the most important marine species as effectively as salmon or other species of temperate waters. While it may be tempting to dismiss Palauan fishermen's knowledge of the traditional lunar calendar as completely useless in today's modern world, learning and committing to memory the timing and location of the spawnings of various species according to a lunar calendar was part of a fisherman's training. Although marine organisms whose spawning patterns are tied to a lunar cycle lay their eggs during the same portion of the lunar month year after year, their spawning dates vary apparently by up to a month or more without any reason within the western calendar. Because the western calendar obscures the lunar patterning of life cycles, only a few cases of lunar spawning cycles are recorded in the scientific literature.

This example shows that western science (now conducted primarily in English to the exclusion of virtually all other languages) has no privileged position in the solution of critical problems faced in local ecosystem management. Almost all major scientific breakthroughs have been made not so much by accumulating new facts as by radical departures from ordinary and habitual ways of thinking about things. Indeed, most real advances in science are resisted at first precisely because they do not fit preconceived ways of thinking about things.

Time is running out. Much of the world's TEK is passed down orally and is always only a generation away from extinction. When forests are cut and people stop collecting plants for food and medicine, they soon begin to forget not only the uses the plants were put to, but even the names of the plants themselves. Knowledge about traditional uses of the trees is no longer being passed down because the forests are being logged and plantation agriculture is replacing cultivation of a variety of native plants and trees. When asked about the uses of some of the native trees, many young people in eastern Indonesia say that they are good only for timber. In the Highlands of Mexico, people stand in line at a field clinic for the visiting health worker to dispense medicine for common ailments they once treated themselves with their abundant medicinal plants. Lizarralde (2001), for instance, found that 40-60% of the ethnobotanical knowledge of the Barí-speaking people of Venezuela was being lost from one generation to the next.

Meanwhile, pharmaceutical companies have been quick to capitalize on indigenous people's knowledge of medical plants in order to reap great profits from bioprospecting. Plants are humanity's oldest source of medicine. The World Health Organization estimates that approximately 75-80% of the world's population uses plant medicines and that one in four of all prescription drugs dispensed by western pharmacists is likely to contain plant ingredients. It is

clearly in the interest of the drug industry to preserve as much biodiversity as possible because this increases the chance of discovering potentially useful medicines. Kumar (2004) estimates that the value of one medicinal plant for pharmaceutical use may be as high as \$340 million per annum. If potentially useful plants become extinct, the loss could amount to billions.

I am not advocating an argument for the conservation of biodiversity based solely on its potential economic benefit for the pharmaceutical industry and the social benefit for those with access to western medicine. The appropriation and patenting of TEK by governments and businesses is yet another example of the dispossession of indigenous peoples and their rights. Nor am I proposing that the main value of TEK lies in advancing scientific knowledge. This point of view, however, requires acknowledgement because it reflects an assumption in certain quarters that could be summed up as: Take the knowledge (and money or whatever benefits gained from it) and run. Such thefts have motivated UNESCO to adopt an international legal framework to safeguard all aspects of cultural diversity, including traditional knowledge, and to guarantee and protect the rights of indigenous peoples to create and disseminate their cultural goods and services in a fair environment for their own benefit (Universal Declaration on Cultural Diversity 2001, Convention for the Safeguarding of the Intangible Cultural Heritage 2003, Convention on the Protection and Promotion of the Diversity of Cultural Expressions 2005).

Apart from the dishonesty inherent in 'cherry-picking' TEK to service the needs of Western science and commerce, this strategy ignores the fact that the world views in which traditional and scientific knowledge bases are embedded are to some extent epistemologically incommensurable and irreconcilable (Burgess 1999, Ross and Pickering 2002:189-191). Because TEK is derived from and embedded within a holistic framework integrating spiritual and social connections to nature, it cannot be simply or easily grafted onto or inserted into western science,

which tends to be compartmentalized as a separate domain of experience. Decontextualized knowledge removed from local environments will lose its meaning. This is one reason why collecting and archiving TEK will do little to empower indigenous communities.

These two bodies of knowledge articulate different value systems and approaches to managing the interface between humans and the natural world. The indigenous response to the environment has been one of adaptation. Western science has been directed primarily toward controlling the environment, often by destroying the environmental resources on which we all depend, and has resulted in our increasing disconnection from the natural world. Supplanting indigenous knowledge and stewardship of a local ecology with western technology often fails because new alien technologies fail to respect the intimate relationships between people and the environment (Kawagley 1995). The total collapse of Norse Greenland is a case in point, cited approvingly by Potts (2007) to bolster his suggestion that traditional cultural values prevent Aboriginal Australians from adapting to the modern world. Diamond's (2005) detailed account of the demise of the Norse settlements points to a more complex interaction of factors, among them, ecological damage incurred from unsustainable farming methods, climate change, and cultural inflexibility.

The Vikings led by Erik the Red to Greenland around 985 A.D. settled in two unglaciated areas of grassland and forest during an extended, unusually warm period in Greenland's cyclical climate. They cleared the land to create meadows for their cows, sheep and goats and to grow hay to feed their livestock during long winters. They constructed their homes from six-foot-thick slabs of turf that each consumed about ten acres of grassland. During the first two hundred years they thrived and their numbers grew, but they depleted the resources on which their lifestyle depended through intensive grazing, cutting of turf for houses, and felling of trees for fuel and

timber to build their churches. Soil erosion was leading to decreased yields of hay, the mainstay of their economy, as the so-called Little Ice Age descended, thus ending several centuries of relative warmth. Meanwhile, the build-up of sea ice beginning in the 13th century interrupted trade with Europe, on which they depended for timber, iron and other goods, leaving them isolated in a deteriorating environment, no longer able to feed their livestock or themselves.

Although there was nothing they could have done to prevent climate change, they could have modified the pastoral economy imported from Norway's more southerly latitudes that were far more suited to the pressures of farming than the fragile Arctic woodlands they deforested in Greenland. Although the 14th century had the coldest climate known in Greenland during the previous 700 years, it was perhaps the much shorter summers rather than colder winters that did them in. After all, the Inuit managed to survive by relying, like their ancestors, on hunting and fishing. All that remains of the failed Norse settlements are the ruins of farms and churches.

3.2 Knowledge as power

While some like Malik welcome the loss and abandonment of traditional languages and cultures as part of an inevitable march to economic progress, discontinuities in transmission of culture and language are frequently accompanied by large human and social costs manifested in poverty, poor health, drug and alcohol abuse, family violence, and suicide. Stanner (1979: 352), for instance, writing from his personal and professional experience as an anthropologist who studied Aboriginal culture, commented on Australia's assimilation policies that

Since the 1950s we have known that it is a false assumption, but we have often persisted with substantially the same outlook and new methods. There was already pretty plain evidence in the 1950s that what we were requiring the Aborigines to do was radically

maladaptive for them. What clearer meaning could sickness, drunkenness, alcoholism, criminality, prostitution and psychic disorders have?

Others looking at the same evidence conclude the opposite; namely, that these are results of the failure to abandon traditional cultural values and lifeways that will eventually doom a people to extinction because they are dysfunctional in the modern world. Evidence has long been mounting in support of the opposite view. Indigenous peoples are typically not admitted, as Mill suggested, “on equal terms” to the dominant societies. Most indigenous peoples will experience a declining quality of life as a result of development projects and assimilation policies, if they are deprived of traditional means of subsistence, but unprepared for employment in other than the lowest and poorest paid jobs (Wilmer 1993:133).

The situation of double social exclusion and marginalization Roué (2006:18) describes for Cree youth is true for many young native people in other communities. Communities have been forcibly relocated, access to resources and lands has been blocked, and traditional ways of living have been rendered all but impossible to sustain. Unlike their parents, they have not learned to hunt, trap or fish. Time spent in school is time away from the land, where elders would have transmitted these skills. Nevertheless, only a tiny minority graduate from secondary school. With no school qualifications and no knowledge of their elders’ life skills or language, they find themselves failures with respect to school and the western world as well as with respect to their elders. A Cree artist and writer explained how he dealt with the shame that had been instilled in him about speaking his native language (Kouritzin 1999: 66-67):

. . . you deal with it by speaking English, and that way you don’t have to

face the hurt of the loss . . . you hide behind the language of the dominant society for a while . . . thinking you're cool because you speak English, you're cool because you don't speak [the Native language] anymore. It's better because now you're white, right?

High suicide rates are found among many indigenous groups around the world, especially among young people. In Canada, for instance, First Nations and other Aboriginal youth take their own lives at higher rates than those found for any culturally identifiable group in the world (Kirmayer 1994). The suicide rate for young men is 8.3 times higher and for young women 20 times higher than the already elevated rate among Aboriginal people as a whole (Lalonde et al. 2003:32).

All of us from time to time experience identity crises, especially during adolescence, but most of us resolve these awkward transition points in our lives not by committing suicide, but by deciding to go forward. According to Chandler et al. (2003:32), suicide is related to problems in dealing with time and futurity. More specifically, they argue that suicidal behaviors among youths are the result of “failed attempts to secure some identity preserving bridge linking one’s past, present and future” (Chandler et al. 2003:34). Joenia Wapixana, an attorney for the Roraima Indigenous Council in Brazil, pinpointed precisely this sense of continuity as key to her people’s survival when she said, “Why have we as a people been able to continue to exist? Because we know where we come from. By having roots, you can see the direction in which you want to go”. (*New York Times* 2004).

Failure to achieve a viable sense of self or cultural continuity is strongly linked to self-destructive and suicidal behaviors. Loss of personal continuity puts individuals at risk just as the loss of cultural continuity puts whole cultural groups at risk. Avoidance of threats to personal and cultural continuity may be difficult to achieve in a rapidly changing world, but strong

empirical and anecdotal evidence has emerged in support of the protective value of language and culture. In British Columbia studies have revealed significant correlations between suicide rates and six measures of cultural continuity, including community control over the delivery of health, education, child protection and policing services, achievement of a degree of self-governance, secure access to traditional lands, and construction of facilities for preserving cultural artefacts and traditions (Lalonde 2003, Chandler and Lalonde 1998, 2004, Lalonde 2006). In this province as in other parts of Canada, Aboriginal youth suicide rates vary considerably across communities. However, when rates are calculated according to the total number of factors of cultural continuity present, a clear step-wise pattern emerges: where none of the variables is present, the youth suicide rate is 10 times the provincial average; where all six are present, the rate drops to zero.

Because a large part of any language is culture-specific, people feel that an important part of their traditional culture and identity is lost too when their language disappears. The centrality of language to cultural continuity and maintenance of identity is a prominent theme in community members' responses to language shift and loss. Lucille Watahomigie (1998:6), for instance, suggests that many Native Americans derive from their language a sense of "who we are, where we came from, and where we are going." Nevertheless, this sense of knowing who you are and what your place is in the world does not come without a struggle when young people receive mixed messages about the value of their language and culture. Low self-esteem, shame, grief and anger lead to language loss at the same time as they are results of it. McCarty et al. (2006:672), for example, report that Navajo is linked with backwardness and English with modernity and opportunity so that "youth feel they must make an either-or choice between language affiliations". One young Navajo explained his confusion this way (McCarty et al. 2006:671):

you forsake who you are, you give up having to learn Navajo . . . [You] give all that up, in order to accommodate the mainstream life . . . That's been colonised in the mind.

Many of these kids know how to speak Navajo, but many times they might be ashamed, or got that kind of self-hate. It's been pumped into them. It's not something natural. It's being told Navajo is stupid . . . to speak Indian is the way of the devil, that kind of thing. . .and many times, the older people will encourage English so [their children] can make it in the White man's world. . .Like I said, for me, it [early school experiences] kind of confused me. Where was I in the world?

Another young Navajo stated that knowing Navajo language and culture provided the foundation

to go on for better things in life: It gives you strength . . . to know where you're coming from and to know your self-identity and your culture . . . you will always come through obstacles with your foundation being there to back you up. (McCarty et al. 2006:666)

When asked if Navajo was important to him, he said:

Yes, it helps me, having that as my first language . . . The Navajo, it helps separate the side . . . of where all these [traditional Navajo] teachings come in. That helps me not get too far in, not to lose the identity of who I am, of where I come from . . . It's mainly a search for who you are . . . It's your outlook, you know. (McCarty et al. 2006:668)

He went on to link knowledge of Navajo to Navajoness and stewardship of the land:

We're so much a part of the land, you know . . . It's hard to see [destruction of the land/loss of language]. It really hurts me . . . It's a spiritual anguish.

When asked what would happen "if there is no Navajo language anymore" and whether he thought the language would be spoken 40 years from now, he responded:

‘It’s like taking away the spirit; it’s like taking away a real big part of who you are’ I don’t really see people talking to their children in Navajo . . . I have some hope, that’s all I can say, because without hope . . . I wouldn’t have a reason. . . . [I] hope that someday we can go about living with the sacredness a little longer. (McCarty et al. 2006:668)

Although scholars and community members themselves have long argued that there was a specific link between indigenous language loss and community-level measures of health and wellbeing, Hallett et al. (2007) have succeeded in finding empirical evidence to support this claim. Communities where fewer than 50% reported conversational language knowledge had more than six times (96.59 per 100,000) the number of suicides as communities with higher levels of language knowledge. Among the latter the suicide rate was 13.00 per 100,000, well below the provincial average for both Aboriginal and non-Aboriginal youth (Hallett 2007:396). In fact, reported language knowledge proved to have predictive power over and above that of the six other cultural continuity factors identified in previous research.

Although this research was conducted among 152 of the 195 First Nations bands in British Columbia, the Canadian province with the largest number of endangered languages as well as the smallest language populations, the findings are clearly relevant not only for other native communities in Canada but for indigenous peoples everywhere experiencing language shift. According to the 2001 Canadian Census, overall only 15% of the country’s Aboriginal children learn an indigenous mother tongue, and fewer still are spoken to in such a language at home (Norris and Jantzen 2002). Global estimates for language loss range from 50 to 90% of the world’s 6,900 some languages, with the heaviest burden falling on indigenous peoples who speak at least 60% of them (Nettle and Romaine 2000).

Hallett et al. (2007:394) conclude that “the generic association between cultural collapse and the rise of public health problems is so uniform and so exceptionless as to be beyond serious doubt”. Lalonde (2006) claims that when communities are successful in promoting their cultural heritage, they are better positioned to claim ownership of their past and future. The positive effects reverberate in a variety of measures relating to youth health and welfare: suicide rates fall, along with rates for intentional injuries. Fewer children get taken into care and school completion rates rise. Now we have proof that language maintenance matters too. Most importantly, these studies provide strong empirical evidence against the view that assimilation to dominant cultures in the interests of modernity is harmless or even beneficial to individuals and communities in the ways suggested by Malik, Mill, and others.

Lalonde (2006) believes that the success achieved by some First Nations communities in helping their young people has clear implications for policy makers and service providers. Because forms of indigenous knowledge have proven their worth in First Nations communities, he contends that the best chances for success lie in efforts to reassert cultural sovereignty and to expand the indigenous knowledge base. Writing from the perspective of indigenous knowledge, Burgess (1999:23) reaches a similar conclusion when he writes that the real goal “is to focus resources on areas that sustain healthy communities and the maintenance of traditional activities ... as part of a *process* which is intimately linked to the quest for self-determination elements of indigenous peoples.” A concrete example of the efficacy of these recommendations can be seen in one solution adopted by the Cree, who refer to it as ‘healing by the land’ (Roué 2006). Disturbed youth are sent out onto the land to be guided by an elder so that they can acquire knowledge, and a spiritual bond to their territory, thereby finding their place in the lineage of their people.

4. Conclusion

In view of this convergence of findings and recommendations from both the perspective of TEK and native social welfare, it is disturbing to find Widdowson and Howard (2002: 32) dismiss traditional knowledge as “nothing more than a blend of traditional survival skills and superstition”. Elsewhere, Widdowson (2005:18n) argued that making Inuktitut the official language of the newly created territory of Nunavut “creates tremendous problems because it is a pre-literate language not suited for use in complex legal and bureaucratic procedures”. In her view, Nunavut is unviable; “the only sensible policy in the long run appears to be ... depopulation of Nunavut and the gradual integration of the Inuit into more productive processes (Widdowson 2005, 23).” Buruma (2001: 26) too argues that the Inuit are threatened because they are a “dwindling group on the edge of the world”. Widdowson and Howard (2002:34) end their critique of TEK with the sweeping conclusion that the cultural gap between the Neolithic period and late capitalism rather than cultural loss is at the root of Aboriginal dependency and “all the related social problems in Canada’s native population and throughout the industrialized world.” Ultimately, what the Inuit and other indigenous peoples are being told by Widdowson and others is to forget their past, stop being themselves, move south and assimilate, and they will be all right.

As my final example of why alternatives to these views are urgently needed, I will return to the Nukak people of Colombia. Although the title of Forero’s (2006) story suggested that the Nukak were “rather liking the change” from the wild after they had “declared themselves ready to join the modern world” of San José del Guaviare, unfortunately, only a few months later Survival International (2006) reported that a flu epidemic struck $\frac{1}{4}$ of the population. In October Nukak leader Mao-be killed himself after trying to help his people return to the rainforest. In

November they were struck by tuberculosis and chicken pox. It is hard to imagine a future under such dire circumstances. Since their first contact with outside society in 1988 over half of the tribe has died, and many continue to suffer from malnutrition, diarrhea, flu and respiratory infections. The Nukak say they do not want to lose their traditions such as hunting or speaking their language. "We do want to join the white family," Pia-pe said, speaking of Colombian society, "but we do not want to forget words of the Nukak." They are now officially classified as displaced people, and the Colombian government is required to provide aid and help them return home. This is not likely because parts of their territory have been taken over by coca growers, ranchers and other settlers and are occupied by guerrillas, army and paramilitaries.

My arguments in favour of supporting the maintenance of linguistic diversity and TEK do not mean that indigenous knowledge is perfect. To assume that would be as absurd as assuming that it was worthless. My argument is also not about setting indigenous peoples aside in isolated reservations, or forcing or expecting them to go on completely unchanged. Nor is it about forcing people to maintain their linguistic and cultural traditions if they no longer wish to do so. Most people will need and want to use languages of wider communication, but their acquisition of other languages does not have to be at the expense of maintaining their own language. My argument is merely about giving people real choice about what happens in the places where they live. This is the starting point for a new 'win-win' approach to the future that is good for biolinguistic diversity and good for people.

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