

The Language Hoax



Why the World Looks the Same in Any Language

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INTRODUCTION

THIS BOOK IS A manifesto. I will oppose an idea about language that took hold among certain academics starting in the 1930s, and of late has acquired an unseemly amount of influence over public discussion as well. This is the idea that people's languages channel the way they think and perceive the world.

You may be familiar with it. Among memories of your readings over the past ten years, for example, may dwell Amazonian tribespeople described as unable to do math because their language doesn't have numbers. Or you may have read about people who have the same word for *green* and *blue*, who we are to imagine not perceiving the difference in color between a leaf and the sky as vividly as we do. The whole idea is a kind of ongoing promo from the worlds of linguistics, anthropology, and psychology, the ad jargon typified by the subtitle of Guy Deutscher's *Through the Language Glass*, "Why the world looks different in other languages."

The notion is, for better or for worse, mesmerizing. Just think—what we speak is what we are. We are the language we speak.

This is true, of course, to an extent. A take-home insight from the idea that language channels thought is that a language's words and grammar are not just a random constellation, but are the software for a particular culture. No one could deny that there is some truth in that. In Thai, there are different words for *you* according to seven different grades of formality, and to not use them is not to be Thai, unless you are a child or new to the language. To pretend this has nothing to do with the highly stratified nature of Thai society in the past and present would be peculiar.

Vocabulary also reflects cultural concerns and not only in obvious areas such as technology and slang. Few people could be truly intrigued that we have names for computer components and salty terms relating to things like dating and social mores. However, quieter things say more than we always notice. Once, while staying at a hotel in the Bahamas I noticed a rather lovely cat

gliding around outside. A Caribbean I was with said, “Oh, that must be the hotel cat.” That is, a cat who lives more or less around the place and serves as an unofficial mascot. I had never heard of a hotel cat. It would never occur to me to put “hotel” and “cat” together, and in fact, to me part of the essence of the hotel experience would seem to be an absence of cats.

However, that my friend would mention a *hotel cat* suggested that the relationship between felines and hotels was different depending on where I was. Even a detail in the way he said it gave away that he was referring to something culturally entrenched: he didn’t accent it as “hotel CAT,” but as “ho-TEL cat.” If you think about it, the second way of saying it means hotel cats are, as one says these days, “a thing.” Think of how we say ICE cream rather than iced CREAM—as one did when it was a novelty, or CELL phone rather than cell PHONE—as I recall people saying in the early 1990s. In two-word expressions, the accent tends to shift backward when something becomes “a thing”—that is, culture! From the Caribbean man’s one utterance—and not even a foreign one—I learned that mascot cats at hotels were a component of the local culture.

But the “language as thought” idea refers to much more than what qualifies it to its speakers as “a thing.” We are to suppose that the way a language’s grammar works, and the way it applies words to even mundane objects and concepts, shapes how its speakers experience life in ways far beyond desserts and gadgets. Hotel cats—sure, but what about a language that gives you a whole different sense of time than anything we can spontaneously imagine, even if we are from the Bahamas?



This all became a going concern with Benjamin Lee Whorf’s proposition in the 1930s that the Native American language Hopi has no way to mark time—no tense markers, no words like *later*—and that this corresponded with the Hopis’ sense of how time and the world work. English obsesses with placing events in the present, past, or future, Whorf argued, in contrast to a language like Hopi with no present, past, and future. In Whorf’s sense of Hopi, present, past, and future are in essence the same, corresponding to the cyclical sense of time in Hopi cosmology. Thus it’s not by chance that Hopi has no

equivalent to English's between *walk*, *walked*, and *will walk*: it's about thought patterns. Culture. In Hopi, whether it's about yesterday, tomorrow, or right now, you just walk.

Whorf was a fire inspector by day, and perhaps coming to linguistic study from the outside made him more likely to come up with out-of-the-box insights than would a card-carrying linguist. Because of Whorf's pioneering role in the field of linguistics, the whole idea has been coined *Whorfianism*, or the *Sapir-Whorf hypothesis*—Edward Sapir was a mentor of Whorf's who found the idea similarly compelling—or, among academics, *linguistic relativity* and *linguistic determinism*.

Under any name, the idea that grammar channels people into thinking of time as cyclical is catnip. Even a well-fed hotel cat would eat it up. Or a college student, such as the one I once was. I got a dose of this version of Hopi linguistic anthropology in 1984, and it is now the sole thing I remember from the class, except that we read some of *The Last of the Mohicans* and that the teacher—a Tom Petty lookalike—seemed ineffably sad.

Whorf, however, wasn't, and he had an agenda, laudable in itself. He wanted to show that people dismissed even by the educated as “savages” in his time were as mentally developed as Westerners are. His was an era when, for example, none other than the *Webster's Second New International Dictionary*, cherished as a staple of the proper middle-class home, defined Apaches as “of warlike disposition and relatively low culture.”

Yet, as with so many tantalizing and even well-intentioned notions, this conception of the Hopi language turned out to be wrong. Hopi marks time as much as anyone would expect a language to, with good old-fashioned tense markers and plenty of words for things like *already* and *afterward*. Furthermore, attempts over the next few decades to reveal Native Americans as cognitively distinct from Westerners because of mental filters exerted by their languages never bore fruit.

For example, if in Navajo, there are different words for *move* depending on whether it is one, two, or several people doing the moving, does that mean that Navajos have a thing about moving as central to existence? Linguist Harry Hoijer thought so in the 1960s. His overall career was invaluable in

documenting fascinatingly complex languages on the brink of extinction, but he, a disciple of Edward Sapir as Whorf had been, was open to Whorfianism to an extent not uncommon among Native American language specialists of his time. When it came to Navajo, he linked its proliferation of *move* verbs to Navajos' nomadism in the past, and even to figures in their mythology "moving" to repair the dynamic flux of the universe.

But wait: what about all of the other languages in the world that also happen to get particular about going and moving? In Russian how you say *go* is so complicated that whole books are written about it and it's one of the last things nonnative learners manage to get right. The word is different depending on whether you walked or rode, and then after you have that figured out, it is different depending on whether you came back after you went, in addition, all of the forms are irregular. Yet nomadism is not exactly central to the Russian soul, and the last time I checked, Russians' interest in repairing the dynamic flux of the universe seemed rather low.

Yet beyond obscure academic journals it's easy to miss how poorly the Whorfian idea has fared scientifically. Of late especially, popular books such as Daniel Everett's *Don't Sleep, There Are Snakes*, Deutscher's *Through the Language Glass*, well-publicized studies by Stanford psychologist Lera Boroditsky, and other works have established a Whorfian meme in public discussion. It is easy to suppose that one of the most interesting things about language is that people whose languages assign genders to inanimate objects perceive those objects as meaningfully more male or female than speakers of English (how things marked neuter fit into this I have never quite understood), or that Russians are more meaningfully sensitive to the difference between dark blue, light blue, and green than Koreans, who have a single word that covers both blue and green.



Crucially, a connection between language and thought does exist. The problem is how that connection has percolated into public discussion, reminiscent of how the rumor mill magnifies the blip into a cataclysm. For example, the ideas about gender and colors, plus some other intersections between language and thought, have been studied by a new generation of

researchers with a much more measured approach than Whorf's. Their experiments are clever and elegant, and only the most rabid skeptic could deny that their work has shown a connection between language and thought. Yet most would consider it a fair assessment that the work of this cohort, often termed the "Neo-Whorfians," has shown that language's effect on thought is distinctly subtle and, overall, minor. Not uninteresting—but nevertheless, minor. This, however, is not the easiest conclusion to get excited about outside of academia, and unsurprisingly, the public gets a rather spicier take on the issue.

To be sure, both Deutscher's and Everett's books actually argue that language's effect on thought is modest, hedging the issue as responsibly as we would expect of academics. Both are well aware that the classic formulation of Whorfianism is hopeless. Everett's point is, in fact, more that culture can shape language—essentially an extension of the *hotel cat* phenomenon—than the other way around. By the end of his book, Deutscher even spells out that "Color *may* be the area that *comes closest* in reality to the metaphor of language as a lens,"—italics mine—making clear that overall, evidence for "language as a lens" has been elusive. *Through the Language Glass* is so thorough in outlining both the failure of early Whorfianism and the deeply modest results of Neo-Whorfianism that it is, in essence, a gorgeously written chronicle of an idea that didn't pan out. Truly gorgeous: the prose is the written equivalent to foie gras or, if that's not up your alley, key lime pie.

However, the problem is that the media, as well as the public, *want* the idea to have panned out. The language-as-thought idea vibrates in tune with impulses deeply felt in the modern enlightened American's soul. Ethnocentrism revolts us. Virtually as penance for our good fortune in living in a wealthy and geopolitically dominant society, as well as for the horrors we have perpetrated on so many groups in the world, we owe it to the rest of the world to stress our awareness that the less fortunate are our equals. We Westerners are "so white"—a cultural self-condemnation that would baffle a Western time traveler from as recently as 1960. We look with a certain envy at the vibrant diversity, and even authenticity, of the rest of the world.

Attractive, then, will be the idea that each language is its own mind-altering

cocktail. All of us are seeing, as it were, different colors (“Man, the colors! The colors!”). Just imagine all of the untapped ideas and perspectives out there among peoples we generally hear too little about, as well as among ones we see every day. We Westerners have learned our lesson: we are only one way of being human, and not the best one, much less the most important in the grand scheme of things. Under Whorfianism, everybody is interesting and everybody matters.

Under this impulse, the general impression from the media coverage of the relevant books, their blurbs, and what readers are therefore led to seek in them (or assume is in them) is that language does channel thought in a dramatic way, and that this is a fascinating new discovery from experts on language and related subjects. Deutscher’s and Everett’s books, for example, are primarily known as books that show that language shapes thought, not as gingerly explorations with tentative conclusions. That misimpression is easy to fall into. A valedictory passage such as Everett’s that “We all possess grammars of happiness—our identities and our cultural cloaks,” warmly memorable, exemplifies the aforementioned catnip. The cozy “cloak” analogy suggests—and imprints—a snuggler bond between language and thought than Everett actually subscribes to.

Or, more were exposed to Deutscher through a widely read op-ed summary of his book than through the book itself, and in that piece we learned that humans “acquire certain habits of thought that shape our experience in significant and often surprising ways.” But there is a short step between this and Whorf’s idea that while Western language led to the insights of Isaac Newton, Hopi grammar suggests the next step in science, “a NEW LANGUAGE by which to adjust itself to a wider universe”—and the layman could easily fail to even perceive the step at all.

There are questioning voices, to be sure. For example, Steven Pinker artfully deconstructs the dramatic readings from the Neo-Whorfian studies in a section of his magisterial *The Stuff of Thought*. However, as this is but one of myriad insights in Pinker’s cornucopia of a volume, the books and articles focused solely on “language as a lens” make the louder noise.

Not that the louder noise is even a crude one. Even Whorfianism’s biggest fans regularly disown the old-time “Hopi” version. It is typical—seemingly

almost required—to quote founding linguist Roman Jakobson, whose verdict was that “languages differ essentially in what they *must* convey and not in what they *may* convey.” The insight is that languages do not saddle speakers with blinders preventing them from perceiving what their vocabularies and grammars happen not to call attention to. Yes, one language forces one to speak gender, such as English with *he* and *she*; many languages have one word that covers both men and women. Yes, another one forces one to speak social hierarchy, such as Thai and all of those ways of saying *you*, or even European languages like French with the difference between familiar *tu* and formal *vous*. Yet, one *can* say anything in any language. Even people new to the topic often come up with this basic insight on their own.

However, within the cultural context of our times, so hungry for confirmation that grammar is a pair of glasses, the Jakobson quote lends itself readily to a less temperate interpretation than Jakobson intended. Sure, anyone *can* say anything—but couldn’t those things that a language *must* convey constitute a “worldview,” fascinatingly distinct from our own? We can know that all people *can* think the same things, while also hoping that there is some magical degree to which they in fact do not. “Surely the question is worth asking ...” one might hear—and it has been asked, for almost eighty years now. The verdict has long been in, and yet the impression persists that there remains a question to be asked—*in perpetuo*, it would seem.

Nominally we are fascinated by a question as to *whether* language influences thought in a significant way. However, in the way the question is framed and reported on, there reigns a tacit assumption that the answer to this question cannot be no.



However, the whole notion that how someone’s language works determines, in any significant way, how they see the world is utterly incoherent, and even dangerous. Therefore, I have two goals in this book.

One will be to complement the opposing case from psychology, such as Steven Pinker’s, with one from linguistics, showing why this idea of languages as pairs of glasses does not hold water in the way that we may, understandably, wish it did. This becomes clear from a perspective

encompassing the world's languages rather than just a few at a time, upon which we see how Whorfianism forces us into endless contradictions, unwitting disparagement of billions of the world's human beings, and even cartoonish perspectives about ourselves. We will see that a broader perspective on languages makes one glad that the Neo-Whorfian studies don't support the "language as a lens" theory any more than they do—glad to an extent that if they were more supportive, you would likely consider the public better kept in the dark about it.

Then second, not only does a full representation of how languages work show how utterly unworkable the idea is that Language X makes its speakers see and feel "a different world" than speakers of Language Y, but in the end, the embrace of this idea is founded on a quest to acknowledge the intelligence of "the other," which, though well intentioned, drifts into a kind of patronization that the magnificent complexity and nuance of any language makes unnecessary. It is a miracle when any one of the world's six billion persons utters a sentence, quite regardless of whether it signals how they "see the world."

Our impulse to identify and celebrate what we call *diversity* begins as noble, but it is too little acknowledged how dangerous this quest becomes. Besides the alarmingly fine line between diversity and diorama, more than a few whom few of us could break bread with today have found the "language as a lens" idea attractive. Take the intransigent ultranationalist German historian Heinrich von Treitschke. Prussophile, xenophobic, and nakedly anti-Semitic, he was given in the late nineteenth century to insights such as "differences of language inevitably imply differing outlooks on the world." You can imagine the kinds of arguments and issues he couched that kind of statement in, and yet the statement itself could come straight out of Whorf, and would be celebrated as brain food by a great many today. "Surely," after all, "the question is worth asking ..."—yet somehow, we would rather von Treitschke hadn't, and find ourselves yearning for thoughts about what we all have in common.

In that vein, my message is not a negative one in the end.

The other goal of this book will be to show that we can vibrantly acknowledge the intelligence and sophistication of indigenous peoples in

another way: by stressing that all humans are mentally alike. Languages viewed in a worldwide sense show this much more clearly than they reveal six thousand distinct “worldviews” and point us to the larger and ultimately more useful truth. Language is a lens indeed—but upon humanity much more than upon humanities. Here’s why.

The Language Hoax



CHAPTER 1

Studies Have Shown

MY GOAL IN THIS manifesto is straightforward. I wish to show the flaws in, and even dangers of, the more sensational implications bandied about in our intellectual culture over whether and how language shapes thought. However, in this first chapter I need to ward off a possible misinterpretation, to the extent that this is possible.

I may be taken as dismissing the work of Neo-Whorfians, but I mean no such thing. I seek out the articles in question and read them with great joy. As far as I can assess, they are composed with great care, enviable imagination, and thorough training. In my teaching, I regularly note that new Whorfian work has shown some modest effects that one might want to know about.

What I take issue with is the tendency to interpret this work as suggesting something about the human condition that I think it does not. To be sure, this interpretation is one more talked about after the fact—by some of the authors and certainly by onlookers—than is actually engaged within the experiments themselves. Yet this interpretation, ripe for cocktail party chat, media-friendly, and beckoningly interdisciplinary, has much greater impact than the minutiae of the experiments. It requires, then, engagement and critique—even with full respect for the work itself.

Ultimately, almost all books settle into the public consciousness in shorthand. I assume that this book, if cited, will often be classed as simply dismissing Neo-Whorfianism. Regardless, I would be remiss without making my actual position clear for those engaging the text.

Hitting a Wall after a Long Night

One of my favorite Neo-Whorfian experiments is one the public doesn't hear

much about, perhaps because it doesn't involve concepts quite as immediately enticing as colors and genders. Yet this experiment is flawlessly constructed, easy to understand, and exemplifies perfectly what good Neo-Whorfianism is—and isn't—about.

It hinges on a difference between languages that one would be unlikely to consider important in the daily scheme of things. In English we say a *long time*. In Spanish, one says *mucho tiempo*, a lot of time. If you put it as “a long time,” *un tiempo largo*, no one will throw you off a bus, but it's ungainly, not true español. In English, time is a distance. In Spanish, it's an amount or a size.

Greek is the same way: you don't have a long night in Athens, you have a big one, a “lot of” night. We might be tempted to read the Greek expression metaphorically—we have “big” nights in English, too, but Greeks don't mean that the way we do. For example, in Greek you also have a “big” relationship rather than a long one, and what they mean by that is that the relationship lasted a long time. As in Spanish, time is stuff, something there can be a lot of, rather than a stretching out of something. “Long” night in Greek is weird Greek.

But then, in Indonesian it's as in English: long times, long nights. These things vary from language to language: French is like English and Indonesian, while Italian is like Spanish and Greek.

One might suppose that a difference like this would be a mere matter of “feel” for the language in question and of no import beyond that. It's what I would once have assumed. However, show an English speaker—who says a “long” time—a line slowly lengthening toward an end point on a screen, and then a square slowly filling up from bottom to top, and she's better at guessing how long it will take the line to hit the end than for the square to be full. Yet a Spanish speaker is better with the square filling up than the line reaching its end! Plus, with their “a lot of night,” Greeks pattern with Spanish speakers and Indonesians with their “long” nights pattern like English speakers.

Among the reasons one might come up with for this difference, clearly the most plausible one is language: the metaphor for time in people's language

determined their performance on the test. Try fashioning an idea that Spanish, Greek, and Italian pattern together because of something about Mediterranean culture, and notice how hard it is to come up with how the beauties of the water and the splendiferousness of the seafood would make people better at predicting how long it will take before something is full. Then, good luck figuring out what cultural trait they have in common that would lessen people's knack at the same task among people in Paris, Leeds, and Jakarta!

This guessing experiment was constructed by Daniel Casasanto, a psychology professor at the University of Chicago. He persuasively argues that a case like this, in which people are not asked about language during the experiment and thus were not primed to use their language's expressions to help them make decisions, shows that language can shape thought. However, he makes no claims beyond this. After all, imagine what the claim would be. Speaking Greek creates a distinct mental world in which, well, you're a little better at predicting how quickly a space will fill up with liquid, while speaking Indonesian makes you a little better at the always handy skill of predicting just when something's going to hit a wall? How do those skills extend to life as it is lived—that is, to *What It Means to Be Human*? The Spanish speaker with his *mucho tiempo* walks about on a Saturday afternoon seeing his environment differently from me with my *long time* in that he ... what?

Yet while writing *The Stuff of Thought*, Steven Pinker had to stop telling people he was writing a book about language and thought because regularly people assumed it must be about language as a lens—that is, about the structure of your language making you see the world “diversely” from other people. The cachet of this notion is not founded on findings of the kind Casasanto so elegantly identified, but on a tacit notion that such things are just preludes to something grander. We are to assume that, to adapt Al Jolson's old catchphrase, we ain't seen nothin' yet, and that the payoff will be a confirmation that languages lend us worlds of different colors.

Kind of Blue

Yet the top-class Neo-Whorfian work on color, marvelous as it is in many

ways, does not lend itself any more gracefully to the juicier, humanist angle of interpretation. For example, I forget why I know that the Russian word for “gay” is *goluboj*, but as it happens the word’s basic meaning is “light blue.” Not just blue, because there is another Russian word for the darker, navy, Prussian version of blue, *siniy*. There is no word that means just blue: in Russian, the sky and a blueberry are different colors.

A neat Neo-Whorfian experiment presented Russian speakers with various tableaux of three squares on a computer screen: one on top, the other two right below it. The squares were various shades of what English speakers call blue, occurring in twenty gradations stretching from dark to light blue. In each tableau, one of the bottom squares was the same shade as the top square, while the other bottom one was a different shade. The Russians were given a task: to hit a button when they identified which bottom square was the same shade as the top one.

It must have been pretty dull to take this little test, but the researchers were trying to get at something: whether having different terms for dark blue and light blue has any effect on perception—that is, can language shape thought? And they found that it did. For example, if the top square was dark blue and the stray, different-colored bottom square was a shade or three into the light-blue range, then the Russians hit the button in a flash, while if the stray square was just a different shade of dark blue the average time before hitting the button was longer. Things were the same the other way around: if the matching squares were light blue, then Russians hit the button without hesitation if the stray one was in the dark realm, but lingered otherwise.

Yet English speakers had the same response time wherever the stray square happened to fall in the blueness spectrum: a stray square’s lightness didn’t quicken them up when the matching squares were dark, and a stray square’s darkness didn’t quicken them up when the matching squares were light. This shows, in a really ingenious way, that having different terms for light blue and dark blue makes people differentiate those colors more quickly than people whose language has a single term for blue—and even when no one asks them about the words in question or even uses them.

Just in case anyone tried to find, say, some cultural reason why Russians would be more sensitive to the difference between dark blue and light blue

than Americans, the researchers did another version of the experiment, to show that language really is what drives the Russians' difference. The second experiment had the subjects not only distinguish the stray square, but at the same time recite a random string of numbers they had just been asked to memorize. The mental candlepower required of doing that puts a temporary block on the processing of language, and in this version of the experiment, suddenly whether the stray square was of the other kind of blue made no difference in the response times. So, without language, Russians were no more attuned to the difference between dark blue and light blue than a guy from Atlanta.

But. A current fashion advertises this kind of test as showing that what your language is like makes you see the world in a particular way. The Anglophone, intrigued, will strain gamely to imagine what the world must look like through the eyes of someone to whom light blue and dark blue are "more different" than they are to them. The attempt may be reminiscent of trying to picture a fourth dimension.

But there's a problem. It's not that this experiment by Jonathan Winawer, Nathan Witthoft, Michael Frank, Lisa Wu, Alex Wade, and Lera Boroditsky isn't extremely clever, nor is it that it doesn't show that language affects thought. Rather, we hit a snag when we try to go beyond the experiment and embrace the notion that it is telling us something about worldviews, being human, and the like. Namely, when I described the difference in reaction times, I used vague terms such as *in a flash* and *linger*. However, in actuality, to seriously evaluate what this experiment means beyond the world of academic psychology, it must be clear what the mean difference in reaction time was, depending on which color direction the stray square leaned toward. It was—wait for it—124 milliseconds.

124 milliseconds! When the matching squares were darker, if the stray square was also in the dark realm, then Russians hit the button just *one tenth of a second* more quickly than if the stray square was in the light realm. They didn't linger for half a minute, or even a whole second, or even a half second. Really, we can't even call a tenth of a second a linger at all.

Now, that there was an effect at all is still something—in itself. Think: among English speakers, just because of a difference in the language, there was no

lag at all. But: upon what grounds are we to take a 124-millisecond difference in reaction time as signaling something about the way Russians *experience life*? Language affects thought? Apparently so, but as with so much in life, the issue is degree. At the current state of our knowledge, it would seem that *goluboj* is relevant to a Russian's soul more vividly in terms of sexual preference than color!

Intuition corresponds with the 124-millisecond figure in suggesting that we are not dealing with anything like different glasses. Upon learning that Russian has separate terms for dark and light blue, it would seem that some are inclined to wonder whether it means that Russians see a robin's egg and a preppy blazer as more distinct in color than English speakers do. However, to just as many English speakers, or, I highly suspect, more, the reaction is a certain bemusement that a language would make such a distinction. "Why would a language *need* to do that?" we might ask. "We certainly know that the color behind the stars on the American flag is starkly different from baby blue—but we don't need different words for it!" That's certainly how I felt when I first encountered Russian.

In that light, there are plenty of languages that do not make color distinctions an English speaker considers fundamental, in which case, to them, English looks as needlessly obsessive as Russian does to us. The Herero people of Namibia in Africa speak a language in which one term refers to both green and blue. Finding out that other languages have separate words for green and blue, the Herero were not given to wondering whether Westerners saw a different world than they. Rather, they were quite aware of the difference between the color of a leaf and the color of the sky—living on the land as they do would seem to have made it rather difficult to avoid noticing it at least now and then. They just found the idea of a language having separate words for those colors, when they learned such languages existed, faintly silly.

Some might still be open to an idea that, on some level, there is a scale of sensitivity to color upon which Russians are high up, English speakers are middling, and the Herero are down on the bottom. That ranking will feel distasteful to most of us—and we will see how often Whorfianism's implications end up confronting us with similarly icky propositions when it's

not us that the studies depict as fascinatingly dim. It seems hardly irrelevant that the Herero, in terms of clothing and decoration, give all indication of reveling in color—including distinct greens and blues—just as much as Westerners. Despite all this, it may well be that an experiment could show that the Herero language wires the brain in some way that leaves its speakers a few milliseconds slower to distinguish a blue-green Crayola crayon from a green-blue one than the typical person on the street in Chicago or Stuttgart (German has *grün* and *blau*). But in this, we have departed from any meaningful discussion of differences in souls.

Yet souls are what we think of in response to statements like “As strange as it may sound, our experience of a Chagall painting actually depends to some extent on whether our language has a word for blue.” That was one of the most resonant phrases in the editorial based on Deutscher’s book and elicits almost 5,000 hits on Google at the moment I am writing this. As I have long experienced, the media (including publishers) tend to encourage academics to put things in that kind of way, in an endless quest for “eyes” (web hits). There are so many books out there; one must ballyhoo a bit. Editorials—and jacket copy—advertising the book will always have a certain rhapsodic quality that almost no actual text could embody.

However, phrases like the one about Chagall have more influence than the book itself, especially given the inherent frisson of the Whorfian idea, and it implies something the studies simply do not. Would lacking a word for blue really impact one’s experience of a Chagall more than education, experience, or even mere variation between individuals’ receptivity to art? The editorial did say only “to some extent,” but let’s face it, a hedge like that gets lost amid the sexy pull of the basic statement. The real question is to what “extent”? 124 milliseconds?

Tribe without Paper or Pencils Mysteriously Weak at Portraiture

There have been some claims about language affecting thought and culture, which, if valid, would indicate much more dramatic effects than infinitesimal

differences in mental processing. However, what they demonstrate is cultural traits that language reflects, like Thai words for *you*, not linguistic traits magically shaping the culture.

You wouldn't have known it in the summer of 2004. That summer is defined in my memory by three things. One is the melody my cell phone played when a text came through, as that was the summer I started texting. The second is a beautiful house plant, of a kind fashionable at the time in New York City, that proliferated its light green leaves all over my study's windowsill and down to the floor. The third was endless media reports of the people who can't do math because their language has no numbers.

This sounded off to me, like a song played with an off chord, or ice cream that has been in the freezer next to leftover linguini and clams, such that into the initial glow of strawberry or chocolate drifts a stray hint of garlic. The coverage was sparked by Columbia University psychologist Peter Gordon's work on the language of a tiny Amazonian tribe called the Pirahã, and the result was that today an obscure language of the Brazilian rain forest has been discussed in various books written for the general public, and was especially publicized by Daniel Everett. It is always good to see a language so unlike Western ones getting so much attention. Nevertheless, it was still perplexing to see one publication after another exclaiming how counterintuitive it was that a group of people who don't have numbers, don't count things, and aren't good at it if you try to make them do it. "Tribe without names for numbers cannot count" (*Nature*, August 19, 2004). "Experts agree that the startling result provides the strongest support yet for the controversial hypothesis that the language available to humans defines our thoughts" (*New Scientist*, same day).

It's not that the Pirahã of the Amazon have been misportrayed. They really do not count and are all but hopeless at learning math. A Pirahã woman genuinely cannot tell you how many children she has, because the language has no words for numbers. There has been some controversy over just how utterly innumerate the Pirahã are. The evidence leaves me, for one, skeptical that they really have no concept of one and two, although it would appear that for them, "one" means what we would mean by "that there," and "two" is more a matter of "a pair and optionally one more or so." However, if

someone lived with the Pirahã for several years as Everett did, then even if there is an extent to which people see what they want to see, we can take his word for it that the Pirahã don't talk about the numbers 5 or 42. If the Pirahã do by chance have counting games that they hid from Everett ("No, no, not in front of *him!*") then if all they have to work with is "that there" and "two and a bit" then we can assume that the game barely qualifies as what we think of as counting ("Here's one banana, Junior, and now, heeeeere's *something like two bananas! Yaaay!!!!*").

The problem is the announcement, "Tribe without numbers in their language cannot do math," with breathless speculations about how the language shapes their existence. We have to imagine equivalent claims. "Tribe without letters cannot write": notice how unlikely such a headline seems. Not having letters would seem to be the very essence of not writing. When we encounter a group without writing, we speculate as to the historical or cultural reasons that explain why they have not adopted it. What would we think of someone who was instead mesmerized with the fact that the group have no conception of letters, seeing it as a valuable insight that this ignorance of letters is what prevents the people from writing anything down or being much good at trying to do so if asked? "Illiteracy prevents writing," the headlines announce—and we wonder whether we have had a small stroke.

Certainly not having numbers in your language will make learning math difficult. However, the fact that the language lacks numbers is not an independent variable in the way that having different words for dark blue and light blue or saying *big night* instead of *long night* are. Pirahã lacks numbers for a reason: an isolated hunter-gatherer culture has no need for a word for 116, or to do long division, or to speculate about the nature of zero.

If, nevertheless, Pirahã were the only language in the world to lack numbers, then there would be a case for treating it as a fluky matter with fluky consequences. That is, we might suppose that there are tribes who have no number words but still count to 7 or 54 silently with their fingers or by lining up little buds on the ground. However, as we would expect, small hunter-gatherer groups quite often have no numbers beyond two or so. That doesn't get around much; only because the groups are small ones unknown beyond where they reside. Many of them, in fact, live in the Amazon. Hence it's not

that there is a mysterious lack of numbers in the language of one group that makes them bad at math. Rather, the lesson is that counting, as humanity goes, is an accessory, despite how fundamental it seems to us. Indigenous hunter-gatherers don't need to count, and thus often their languages have no word for the number 307.

An interesting thing to know, but building a case for language “shaping thought” is out the window. “Tribe without cars doesn't drive” sounds like something out of *Monty Python*, as does, really, the idea of marveling that people without numbers don't take to math. For example, cultures differ in the degree to which they happen to elaborate their music, art, or food. All people have and cherish these things to an extent, but, for example, some groups take cuisine to a more prolific and universally captivating level than others. Take Italy versus Romania, perhaps. Yes, I know Romanian food has its moments. New York diner menus even feature something I've never quite got around to eating called “Roumanian Steak.” But still.

Suppose we encountered a tribe whose approach to food was relatively utilitarian, and found that in their language there was a single word that covered meat, vegetables, starches, and fruit. The person who came away saying that the reason these people weren't gourmards was that they didn't have words for different kinds of food would likely be a clever child, whom we would correct while chuckling warmly. Obviously, the cultural trait created the linguistic one.

Upon which we return to the likes of “Tribe's not playing music is traced to their lack of musical instruments.” It is the warm attraction so many have to the idea of language shaping thought that leads people to treat this kind of reasoning as normal when it comes to language. Steven Pinker gets it just right: “The idea that Eskimos pay more attention to varieties of snow *because they have more words for it* is so topsy-turvy (can you think of *any other reason* why Eskimos might pay attention to snow?) that it's hard to believe it would be taken seriously were it not for the feeling of cleverness it affords at having transcended common sense.”

It Depends on Where You Stand

It's hard to avoid the same verdict on a case that was often advertised as *the* one for skeptics to beat when the Neo-Whorfian work started getting attention beyond academic psychologists in the late 1990s. As always, the literature starts with something you wouldn't want to go through life not knowing, but then veers off into garlic ice cream.

There are groups in Australia who don't think of things being in front of, behind, to the left of, or to the right of them. Rather, they think of north, south, west, and east. Always. Not just when they turn north, and not just when a reason comes up to explicitly figure out which way is up. To a group like the Guugu Yimithirr (the name, in their language, roughly meaning "talking like this"), if a tree is in front of them and to the north, then they say it's north of them, and even when they turn around, they do not say it's behind them—they say it's north, which it still is. In front of them is now south, and they would describe a wall they might now be facing as "south." This is how they describe where things are inside, outside, in the dark, in a room they've never been in: they can always instantly discern wherever they end up as north, south, west, or east.

It makes perfect sense; it's just not what we would do. Here is a fascinating example of human diversity indeed. However, the scholars who have publicized this aspect of the Guugu Yimithirr call it stunning evidence for Whorfianism. Namely, they think of this not as something interesting about the Guugu Yimithirr as people but as something interesting about their language. To them it's not that the Guugu Yimithirr process direction differently than others do—it's that their language forces them to.

That is, "Tribe with no words for clothing do not wear clothes." Imagine: according to *Scientific American*, "Previously elusive evidence that language shapes thought has been discovered in Papua New Guinea, where the Stnapon tribe, who habitually wear no clothes, have been found to exhibit this trait because their language has no words for clothing." Unlikely—we assume that not wearing clothes came first, and that unremarkably the language developed no words for clothing.

In the same way, a Guugu Yimithirr man processes direction the way he does because his environment forces him to. The language part is just a result. Of course this is hardly a language that would *encourage* someone to think about

behind and *beside*. But just as Eskimos have a reason to focus on snow, the Guugu Yimithirr have a reason to rely heavily on geographical coordinates: they live on flat land in the bush. In fact, this kind of reckoning is common in Australian Aboriginal languages.

I am hardly the first person to see it that way, but defenders insist that the language must be the driving force because there are similar cultures that do not rely on geographical coordinates. They posit that this means that it can't be culture that creates this orientation, therefore leaving language as where it all starts. This reasoning, however, would not stand up in court.

No one has ever claimed that a given cultural trait *always* expresses itself in a group's language. If it did, then every language spoken by a group with a strong sense of social hierarchy would have seven ways of saying *you*—even feudal European languages. Yet not one European language is ever recorded as doing so.

All evidence shows that people like the Guugu Yimithirr process the world as they do because of their environment, not their language. It is not even, as some might wonder, a chicken and egg case in which both sides are right. Exhibit A: There is no language like Guugu Yimithirr spoken in, for example, a rain forest or a town. People only rely on geographical coordinates to this extent in environments that would naturally make it urgent. No peoples surrounded by structures and roads in front of and behind them mysteriously insist on looking beyond them and saying “north” and “south.”

Exhibit B: It is documented that among generations of Guugu Yimithirr who grow up outside of the indigenous environment, the geographical orientation quickly falls apart—this seems to have happened with countless Aboriginal groups. Again, what drives this way of speaking is where its speakers are, not the language.

But can't language play a part? Possibly, but the evidence suggests that it doesn't in any significant way. For example, languages index aspects of environment in other ways. In the Mayan language Tzeltal in Mexico, one refers to “uphill,” “downhill,” “across,” and to place names rather than “in front of,” “behind,” and so forth. The Whorfian impulse starts with “What a

fascinating language that channels its speakers into thinking that way!”
However, more intuitively, we are also interested to know that the Tzeltal live on the side of a mountain!

Now, while some might try to save the Whorfian analysis by finding a group of people who live on the side of a mountain somewhere and yet speak and think in terms of left and right—“the language determines the thought pattern!”—there is another group that pretty much closes the case in favor of the prosecution. Upon which: Exhibit C: Next door to the Tzeltal live the Tzotzil, in the same kind of mountainside environment. As you might guess from the similarity of the names (one must guiltily admit they sound like two groups created by Dr. Seuss!), Tzeltal and Tzotzil are essentially variations on the same language: one, two, three is *hun, cheb, oxeb* in Tzeltal and *jun, chib, oxib* in Tzotzil. Yet the Tzotzil differ from the Tzeltal in that they do *speak* in left-right/front-back terms *linguistically*—yet if you submit them to a psychological experiment, they *still* reveal themselves to *conceptually* process direction in terms of geographical coordinates like the Tzeltal and the Guugu Yimithirr.

If a Tzotzil is presented with three objects laid out in a row on a table and is then asked to turn around to a table in back of them and arrange the objects “the same way,” they will place them in a way that we would consider backward, as if the order of the objects on the first table were mirrored. For them, when they move, the world doesn’t change—just like with the Tzeltal in the same experiment. What the Tzeltal and the Tzotzil have in common here is culture, not what their language—practically the same one—makes them do.

The cool insight is about the world, not what one’s language makes you see in it. Processing direction geographically is something about culture, which can occur whether it penetrates language or not. Calling it language shaping thought looks plausible from the Tzeltal, but falls apart when we pull the camera back and bring in the Tzotzil. Calling it language shaping thought looks plausible from the Guugu Yimithirr point of view, but falls apart when we pull the camera back and bring in a hypothetical issue of the *Onion* with the headline “Legless Tribe Incapable of Walking Because They Have No Word for *Walk*.”

Mommy, the Park Is Covered with Squirrel! Can I Go Feed Some of It?

And so it goes. I am unaware of a Neo-Whorfian study in which neither of these things are true: (1) it's hard to say what it has to do with what it is to be human, or (2) the whole claim is like saying a tribe's lack of a word for *calf* is why they don't raise cattle. The studies themselves are always intriguing, but if they are showing anything like different lenses on life, then the difference between the lenses is like the one between the two lenses that your optometrist shows you during an exam for glasses or contacts when you have to have her alternate between them several times to decide whether you see better through one or the other, because really, the chart looks the same through both. "Better? Or better? Better? Or better?" she says. "Well, uh ...," one ventures. E, T X P R E, G J N B C ... "Better? Or better?"—but actually you would experience life the same way in a pair of glasses fitted with either of them.

My praise of these studies in themselves is not a backhanded compliment. For example, there is work on Japanese that gets less attention than it should because it came along before the media happened to pick up on Neo-Whorfianism. It perfectly illustrates how Neo-Whorfianism can be great work despite offering little or nothing to those of a mystical bent.

In Japanese, when you talk about a number of something, the number has to come with a little suffix. That suffix is different according to what kind of thing or material something is. Two is *ni*, dog is *inu*. However, two dogs is not *ni inu*, but *ni-hiki no inu*. *Hiki* is used when you are talking about small animals and using a number. But if you say "two beers," *ni biru* is incomplete, and *ni-hiki no biru* would make the beer into a small animal. One neither pats, feeds, nor swats at a beer. You say *ni-hon no biru*, because *hon* is used for long, thin things, like bottles.

In Japanese this translates into saying "two little crittinesses of dog," "two skinninesses of bottle." *Dog* and *bottle* are treated as substances, just as in English we say *two ounces of water* but *three pounds of meat*, except that in Japanese you have to do this with all nouns when accompanied by a number. In English only some nouns are substances: *three pounds of meat*, but we say

I have two desks in my office, not I have two woodnesses of desk in my office, and There are a lot of acorns over there, not Behold, there are many seednesses of acorn! But whenever there's a number, woodnesses and seednesses are the lay of the land in Japanese.

There are dozens of these suffixes in Japanese. They are about the hardest things in the language, after getting used to the different word order, for English speakers to master because knowing which suffix to use for which noun gets a little arbitrary. Are bottles really long and thin in the way that pencils are? And when you find out *hon* also has to be used with phone calls and movies you just have to suck it up.

In any case, the Whorfian seeks to see if this grammatical trait, where everything is marked as stuff instead of as an object, has any reflection beyond. In fact, it does. In what is definitely the best-smelling Whorfian experiment yet, Mutsumi Imai and Dedre Gentner laid out for their subjects triads of objects: say, a C-shaped mass of Nivea (have you ever smelled Nivea? Truly heaven, I've always thought), a C-shaped mass of Dippity-Do (a hair gel more popular in the old days, which smells pretty good too, although currently they push an unscented kind, anyone's preference of which reminds me of people who poo-poo mackerel and sardines as "tasting like fish" as if that's a minus), and scattered little dapples of Nivea. Or a porcelain lemon juicer, a wooden lemon juicer, and then some pieces of porcelain (that part was just plain nice to look at).

Yes, all of this did apply to Whorfianism. Asked which two things go together out of the three, Japanese children were more likely to group the mass of Nivea with the little clumps of it, while American kids were more likely to group the similarly shaped masses of Nivea and Dippity-Do. The Japanese kids thought of the porcelain lemon juicer as forming a pair with the pieces of porcelain, while American kids grouped the two juicers and left those crummy shards of porcelain to the side. Americans group by shape, Japanese by material.

This is all the more fun because if you are American, you almost surely feel the American choices as more natural, even if you can see the basic sense in the Japanese kids' choices. Nivea with Nivea, well, of course! But to an American, somehow the fact that the two masses of Nivea and Dippity-Do

are shaped alike “pops” more.

And wouldn't you know, when they hear about experiments like these, people who speak languages whose numbers work the Japanese way tend to find grouping by material more intuitive. That is even scientifically confirmed in experiments with other languages that treat all things as substances. Near Tzeltal and Tzotzil in Mexico is their relative language Yucatec, and its speakers have number suffixes like Japanese. Eight out of 10 of them given a paper tape cassette box (it was in the 1980s) group it with a small piece of cardboard, while 12 out of 13 English speakers grouped it with a plastic box. Yucatec speakers went by material, English speakers by shape.

One cannot assess Whorfianism without awareness of studies like these. Yet we must return to the big picture. Clearly, the Japanese and Yucatec experiments show that language can shape thought. The question is what is meant by thought. Many seek to read experiments like these as shedding light on larger issues: real life, the human condition. But what could that really mean from data of this sort? A difference in thought must be of a certain magnitude before it qualifies realistically as a distinct “worldview.”

Is there anything a Japanese person has ever done in the 1,800 years since chopsticks have been used in that country, anything that any of the 125,000,000 Japanese do with chopsticks now, or anything that any Japanese-to-be will ever do with or even think about chopsticks, that seems even remotely traceable to them thinking of chopsticks as a substance rather than as a thing? That is, what effect of any kind has this mental trait ever had on a Japanese person's behavior, outlook, health, argumentational skill, artistic sensitivity, sexuality, or anything at all? “Goodness, this room is fairly bedecked with *chopstick!*”

At what shall we aim our subsequent experiments to find out how these Whorfian ripples affect people and life as we know them? One can't help noting how few such experiments seem to actually occur. And if somewhere, somehow, Japanese people suggest that they think of chopsticks as a substance like water or sex in some stupendously minimal, ambiguous way—of the kind even scholars would likely have trouble even agreeing on anyway—why, really, should it occupy our attention long-term?

Any Whorfian study that suggests any effect on “worldview” less evanescent than this still meets trouble. For example, in Mandarin Chinese next month is “the month below” and last month was “the month above.” Does that mean Chinese people think of time as stretching vertically rather than horizontally? Now, there would be a worldview—and for a while a paper by Stanford University psychologist Lera Boroditsky (last encountered heading that study of blueness in Russian) taught us that Chinese people do sense time as up and down, and the study comes up often in conversations about Whorfianism’s plausibility.

In Boroditsky’s experiment, Mandarin speakers were faster to answer a question like “August comes earlier than October” when they had just been shown pictures of objects oriented vertically (a ball over another one, for instance) rather than horizontally (worms following each other, for instance). However, I often noticed that the Chinese people I asked about this often said they didn’t sense time as going up and down, and as it happens, various researchers have not been able to replicate Boroditsky’s findings. Most indicatively, in one study English speakers were about even in terms of how well they did with sentences like “August comes earlier than October” depending on whether they had just seen vertically arranged balls or horizontally creeping worms.

To give up on a hypothesis upon the first volleys of criticism would be unscientific, and thus as expected, Boroditsky has refined her experimentation. In the latest rendition, subjects are asked to hit early/late buttons arranged vertically as well as horizontally in response to pictures (such as of a young and an old Woody Allen). Mandarin speakers are quicker when the buttons are vertical, paralleling the time expressions in their language.

But, we get back to the question as to what quick-*er* is and what it means. Mandarin speakers are 170 milliseconds faster at nailing “up” as previous. That is certainly a result. But then, English speakers are almost 300 milliseconds quicker at nailing what their language marks as previous, “left” over “right.” And, even Mandarin speakers get “left” as earlier about 230 milliseconds faster—which we would expect since left-right time orientation exists alongside the up-down one in Mandarin. So: English speakers register

their language's way faster than Mandarin speakers register their language's way—and who knows why?—but even Mandarin speakers register the English way faster than their main one!!

So we do not know that Mandarin speakers “experience time vertically,” and it is even precarious to leave it that they even experience time “more vertically,” in that they demonstrably do at all, because let's face it, mental habit encourages letting that qualified assessment drift into the easier “Mandarin speakers feel time as up and down,” period. What the studies show is that Mandarin speakers sense time primarily as horizontal, with a background openness to a sense of it as vertical that you can tease out from very, very careful experimentation.

Is that layered, subordinated twinge a “worldview”? In deciding whether it is, we must ask: where are the Mandarin speakers who say, “Oh, that isn't going to be ready for years and years!” pointing animatedly to the ground?

Language Is about All of Us

Yet no one would deny that human cultures are quite diverse, nor would anyone deny that the diversity means that humans of different groups experience life differently. However, language structure is not what creates this difference in experience. Culture certainly percolates into language here and there. Why would it not, since people with cultures speak language? However, language *reflects* culture—in terms of terminology, naturally, and also things like honorific levels of pronouns and geographical ways of situating oneself. But pronouns and topographical terms are, themselves, terminology in their way. They come for free from what life is like for a language's speakers.

What language does not do is shape thought by itself, in terms of meaningless gender divisions of the kind that in German makes forks female, spoons male, and knives something in between (*die Gabel, der Löffel, das Messer*), or in terms of how people see the world's colors, or in terms of whether we think of a cat as a clump of cuteness in the same way as we see a glorious-smelling white glob as a clump of Nivea. All attempts to find otherwise

splutter. Even if you can, as it were, trick someone into revealing some queer little bias in a very clever and studiously artificial experiment, that weensy bias has nothing to do with anything any psychologist, anthropologist, or political scientist could show us about how the people in question manage existence.

Make no mistake: languages, like cultures, differ massively, and far beyond the terminological features that drift into them from the cultures. I have written about how vastly languages differ, and we will see it in the next chapters. The degree of divergence is awesome indeed: languages with only a handful of verbs (many Australian languages), languages with no regular verbs (Navajo), languages where a word's meaning differs according to nine different tones you utter it on (Cantonese), languages with only ten sounds (Pirahã again), languages with whole sentences that you need only one word to utter (Eskimo), languages with dozens of click sounds (did you ever read about the “Kung” “bushmen” in an anthropology class? “Kung” is actually lazy Westerner for!Xũ where the! is a click), languages with no tense at all (Maybrat in New Guinea), languages with two hundred genders (Nasioi, again in New Guinea), languages where the only ending in the present tense is the third-person singular one (English).

But the wonder is how in all of their diversity, these languages convey the same basic humanity. The cultural aspects qualify as scattered decoration. That will sound naïve to many—until they consider what it is to learn a language, upon which it becomes clear how ancillary the cultural aspect of a language is. How much of the Spanish or Russian or Chinese you hacked your way through was “cultural”?

If you want to learn about how humans differ, study cultures. However, if you want insight as to what makes all humans worldwide the same, beyond genetics, there are few better places to start than how language works. We will see why in subsequent chapters.

In this light, we must revisit some deeply seductive questions in Guy Deutscher's editorial based on his book: Did the opposite genders of “bridge” in German and Spanish, for example, have an effect on the design of bridges in Spain and Germany? Do the emotional maps imposed by a gender system have higher-level behavioral consequences for our everyday life? Do they

shape tastes, fashions, habits, and preferences in the societies concerned? At the current state of our knowledge about the brain, this is not something that can be easily measured in a psychology lab. But it would be surprising if they didn't.

But what if they don't?

CHAPTER 2

Having It Both Ways?

PART OF WHY IT can seem so counterintuitive that language does not significantly “shape thought” is that it is so natural to suppose that fundamentally, what languages are like parallels what their speakers are like.

We could reasonably assume that the mechanics and nuances of the Burmese language correspond to being Burmese in some way that they do not correspond to being Icelandic. We may question the idea that language by itself shapes thought significantly, especially after reading the previous chapter. Yet we might assume that, nevertheless, cultures’ thought patterns must somehow correspond to the languages they are couched in. After all, as I have specified, it isn’t that culture *never* affects how language works. One could start with the Pirahã’s innumeracy, meaning they don’t have numbers, and then think of the Guugu Yimithirr’s geographical needs and how they process front and back, and go from that to assuming that overall, what people are like is how their languages work. Not just in marginal splotches, but overall. Why not, really? Language is a part of a culture, and to speak, to express yourself, is what it is to *be*. It would certainly seem that the way a language works must reflect, then, what its people are like. Linguists are amply familiar with being asked whether this idea is true by students and by audience members in talks for the general public, and it fairly drips from a growing literature that calls attention to the number of obscure languages going extinct.

In that state of mind, seeking to make sense of things, it will be natural to assume that some kind of parallelism between language and what its speakers are like is salvageable with adjustment. As such, the Whorfian debate lends itself to an eternally useful approach: “Couldn’t it work both ways?”

Thus: maybe to say that language creates thought, and therefore what a people are like, is oversimplifying. Yet language and thought could exist in a

complementary relationship. Maybe a people's thoughts, their culture, have an effect on how their language works, whereupon it would then hardly be implausible that the language then reinforces the thoughts and the culture connected with them. Thus we can account for why trying to see things going in one direction from language to thought doesn't work: the reality could be more holistic.

That argument is reasonable. It is, more specifically, appealing. It gratifies one to identify a system rather than a mere one-way cause and effect. Eternally warned not to be reductive, and steeped in an intellectual culture that stresses webs, feedback loops, and complementarities in fields like ecology, evolution, and quantum physics, we seek the approach that entails mutual reinforcement, or, in a near-irresistible anthropomorphizing sense, cooperation. There is quiet yet potent rhetorical power here. Picture the gesture that often accompanies such propositions, rotating the hands around one another, and note how the mere sight of someone doing that makes you want to nod.

Even after some acquaintance with languages and linguistics, it will seem compelling to many that languages evolve to support the cultures of those who speak them. Like animals, languages evolve over time: dinosaurs became birds, Latin became French. Like animals, languages have family relationships: as manatees and dugongs are branches on one tree of mammal, French and Spanish are puppies in a brood born of Latin. Animals can go extinct, as can languages.

If so, then just as animals evolve according to the needs of their environment, then don't languages evolve according to the particular, culture-internal needs of their speakers?

Actually, no. Not in any significant way.

Words versus Whorfianism

That seems counterintuitive. *Languages evolve according to the needs of their speakers*: what could seem more unassailable? And yet the more one

knows about languages in the worldwide sense, the more hopeless the proposition becomes.

This is not always easy to accept. At a talk I once gave on Whorfianism, an earnest student asked me, “But why would people have something in their language if they didn’t need it?,” clearly finding the notion otherwise almost off-putting. It’s a good question, in that it points up the key juncture of misunderstanding: the very idea that language is primarily a cultural tool rather than primarily a shambolically magnificent accretion of random habits.

Note that I wrote “primarily.” I should be clear that my claim is not that language is utterly divorced from practicality, or even from certain particularities of its speakers. Of course all languages serve the basic needs of communication. However, I doubt many find that counterintuitive, and it isn’t the focus of Whorfianism. Who is impressed that a language has words for things, including churning out new ones as new objects emerge within the culture? Benjamin Lee Whorf certainly wasn’t—he was on to something much more specific.

English has a word for canines of a certain sort: *dog*. English has words for more specific things important in the cultures that speak it: *computer*, *upload*, *blog*, and even quirker things like *inferiority complex* and *jump the shark*. In the same way, Guugu Yimithirr makes heavy use of the words *north*, *south*, *west*, and *east* because direction is highly important to its speakers. That kind of thing, terminology for realities, is no more special in a tiny language spoken in the rain forest than it is in Los Angeles. It is quite different from the more mysterious and dramatic hypothesis that less concrete aspects of a language can make the world look more colorful, or time feel more vertical. Whorf was clear about this, referring to a person’s

unperceived intricate systematizations of his own language—shown readily enough by a candid comparison and contrast with other languages, especially those of a different linguistic family. His thinking itself is in a language—in English, in Sanskrit, in Chinese. And every language is a vast pattern-system, different from others, in which are culturally ordained the forms and categories by which the personality not only communicates, but analyzes nature, notices or neglects types of relationship and phenomena, channels his reasoning, and builds the house of his consciousness.

Whorf, then, was referring to something deeper, and more interesting, than

the fact that rain forest people have names for things that matter to them. He was supposing that the very essence of how that people's language works, its constructions, overall grammatical patterns, what would be challenging in trying to learn how to form sentences in it, is profoundly consonant with what it is to be them, rather than anyone else.

If stressing instead the more mundane fact that a rain forest people have words for their tools, customs, and concerns has any purpose, it is not bolstering Whorfianism but dissuading dismissive views of indigenous, unwritten languages. Make no mistake, that problem is real: a traveler to Rossel Island off of Papua New Guinea once had this to say about the "dialects" she heard there: "Any that we heard were scarcely like human speech in sound, and were evidently very poor and restricted in expression. Noises like sneezes, snarls, and the preliminary stages of choking—impossible to reproduce on paper—represented the names of villages, people, and things."

Yet the "dialects" she thought of herself as hearing were one magnificent language, called Yéli Dnye, which is expressed not in sneezes but in ninety different sounds, compared to English's paltry forty-four. It has over one thousand prefixes and suffixes, and it's hard to recognize "restricted" expression in a language with, for example, eleven different ways of saying "on" depending on whether something is on a horizontal surface, a vertical one, a peak, whether something is scattered, whether something is attached to the surface, and so on.

However, I take the liberty of presuming that anyone reading this book readily sees the error in absurd caricatures such as the one of Yéli Dnye. An impression does persist even among the educated that unwritten, small languages are likely less complex than "real" languages like English and French (an impression I work against in *What Language Is*). However, no one interested in language thinks anyone goes about with a language little better than what animals are stuck with. As such, our interest in whether language evolves for the purposes of its speakers will concern the meatier Whorfian orientation. The question is not "Do languages develop words for things their speakers often talk about?" Of course they do, and we can move on to the more suspenseful question that really interests us: "Do languages

evolve according to ways of thinking?”

Here is where a “complementary” take on Whorfianism might seem useful, especially since we know that external conditions *can* influence language—such as the Guugu Yimithirr directional words—and that conversely, language *can* influence how people process those external conditions, such as material markers in Japanese and Yucatec.

We might propose that just as Guugu Yimithirr has its directional marking because of its speakers’ environment, the material suffixes in Yucatec must be there *because of* something in their environment that got them thinking that way in the first place. Then, if that works, certainly it is worth investigating whether among the Guugu Yimithirr the language also “reinforces” their sense of direction just as the sense of direction shapes their language. Thus we could see a kind of feedback loop—the culture affects the language, the language affects the culture, in a reciprocal relationship in which there is no point designating a chicken and an egg, at least not in the here and now.

The appeal of this “holistic” sense of language and thought would be in acknowledging that language does not create a “worldview” by itself while still preserving a sense that languages are like their speakers, and thus symptoms of diversity in the same way that cultures are. However, there is a fragility in the venture that tips us off to the reality. What would it be about the Yucatec’s environment that led them to be more sensitive to what things are made of than Estonians, Mongolians, or especially, countless other Native American groups whose languages are not sensitive to material in the Yucatec way?

That is, if told that any of these other peoples actually were, as they in fact are not, more sensitive to what things are made of than English speakers, would we find it any more or less plausible than hearing of it about the Yucatec? And meanwhile, what could it be about Russians that makes them name more blues more than other people?

Try to link what people are like to certain words and expressions for obviously cultural features in their language and you’ll find plenty. No one would ever have thought otherwise. But try to link what people are like to

how their languages work in a more general sense, along the lines of Whorf's "unperceived intricate systematizations" such as whether they classify things according to shape or material or whether they have a future tense, and all you get is false leads and just-so stories. It seems so tempting and you keep reaching for it, but always and forever, poof and it's gone. It's like trying to get hold of a soap bubble.

The variety among the world's languages in terms of how they work is unrelated to the variety among the world's peoples, and thus Whorfianism cannot be saved even by fashioning a dynamic two-way relationship between cultures and the languages that they are spoken in. That cannot help but seem a strange declaration on first glance, but in this chapter I will demonstrate its empirical motivation.

Rules of the Rain Forest?

Evidential Markers

An eminently tempting case for linking how a language works and what its speakers are like is something that is interesting about another language of the Amazon called Tuyuca. In this language, to make a normal statement you have to include how you know that it's true, or whether you do. This is so deeply entrenched in how you express yourself in Tuyuca that the way you explain how you know something is not with a phrase like "I heard" or "so they say," but with certain suffixes that you tack on to sentences. This is similar to the way we're used to doing it in English to make the past tense (-*ed*) or the plural (-*s*).

So, one does not, as a proper Tuyuca, say just *He's chopping trees*. You have to add one of those suffixes. I am showing the suffixes appended to the English version of the sentence for the sake of clarity—obviously, it is rare that a Tuyuca chooses to express herself in English!

He is chopping trees-**gí** (... I hear.)

He is chopping trees-**í** (... I see.)

He is chopping trees-**h̄i** (... apparently, but I can't tell for sure.)

He is chopping trees-**yigī** (... they say.)

And that's just a sample. There are different versions of the suffixes for the past tense, for whether you are referring to a man, a woman, the person you're talking to, yourself, and so on.

Linguists call these *evidential markers*. Any language has ways of doing what evidential markers do to an extent. In English, when we say after the doorbell rings *That must be the Indian food*, the *must* means roughly the same thing as the Tuyuca suffix used to indicate that you know something because of hearing it. However, Tuyuca takes this kind of thing to an extreme.

Here is where the “holistic” kind of approach may beckon. On the one hand, the previous chapter may have conditioned a skepticism about the classic Whorfian response to data like this. We might resist the idea that having evidential markers makes people magically sensitive to where information came from. Science would be behind us on that. Anna Papafragou at the University of Delaware and her colleagues have shown that Korean children, although having learned the evidential markers in Korean, are no better than English-speaking children at thinking about sources of information.

Yet there may remain a temptation to assume that there must be something about being Tuyuca that conditions this close attention to sources of information: that the culture is feeding into the language. One could suppose it must have something to do with living in a rain forest where one must always be on the alert to dangerous animals, or to the presence of other animals on which one depends for sustenance. Wouldn't being a Tuyuca seem to require constant attention to whether one hears something, whether one can depend on someone's statement that there is a new source of a certain food somewhere far off, and so on?

This sounds eminently plausible when we think only of the Tuyuca. However, as odd as evidential markers seem to an English speaker, they are actually quite common worldwide. Crucially, to perceive any kind of link between culture and evidential markers from a worldwide perspective is—and this is putting it the most open-mindedly—extremely difficult.

Basically, to link evidential markers to what a people are like is to say that some groups are more skeptical than others. However, that is a dicier proposition than it may seem. Evidential markers are rare in Europe, for example, which is much of why they seem so exotic to us. However, who among us is prepared to say that the Ancient Greeks, who produced some of the world's first philosophical treatises scrupulously examining all propositions no matter how basic, and lived in a society always under siege from other empires as well as from rival Greeks themselves, were a relatively accepting, unskeptical people with only a modest interest in sources of information?

Or, I might venture: if you know any Greeks today, would you process them as *not* especially skeptical? I, for one, would say no. Yet Greek has no evidential markers along the lines of Tuyuca. It never has, doesn't, and shows no signs of ever doing so. That's true even though if it did, certainly many would readily link the evidential markers to the grand old Socratic tradition and its influence on Greek thought.

Or, if the Tuyuca have evidential markers because their culture requires them, then why in the world is the only European language that has anything like them Bulgarian? I happen to know some Bulgarians, and I would say that they are pretty skeptical as people go—but no more so than people from many other countries. What is it that Bulgarians have in common culturally with the Tuyuca tribespeople? And more to the point, what do they have in common with Tuyuca tribespeople that Czechs, Macedonians, and Poles do not? Note: it won't do to say that maybe Bulgarian needed the evidential markers in earlier times when Bulgarians were living closer to the land with less technology. If languages furnish speakers' "needs," then why wouldn't the evidential marking have been let go long ago once Bulgarians had central heating and canned food and no longer "needed" them?

Languages evolve according to the needs of their speakers: savor that sentence, but then venture to ask how that squares with Bulgarians being the only Europeans who "needed" evidential markers. Really: why would, say, the traditionally philosophic French, ever defending their geopolitical position, not "need" evidential markers? But no, only Bulgarian—just Bulgarian!—evolved according to that "need"?

Move eastward and another language with evidential marking is Turkish. Again, why them in particular, if evidential marking has anything to do with culture? I have actually encountered a Westerner who had spent some years in Turkey who happily—but with a certain insistence—assumed that it was because Turks were hypersensitive to sources of information. However, he had come to that conclusion based on the evidential marking in the language, not on having independently noted that Turks were hard to convince of anything. Are Turks really more wary of sources of information than, say, Persians? The idea will ring a bell with few if any who are familiar with people of both extractions, and no anthropological study I am aware of makes such an observation or even designates Turks as defined by an extreme wariness of rumor. In fact, if anything, it is Persian culture that is known explicitly as particularly skeptical. But Persian doesn't have evidential markers.

The facts on where we find evidential markers even suggest that seeing them as cultural disrespects an alarmingly vast number of the world's peoples. Basically, skepticism is a form of intelligence. It is certainly a keystone of sophisticated thought. It would not be inappropriate to even state, for general purposes, that skepticism—that is, a dedication to applying one's mind to taking the measure of things before coming to a judgment—is the heart of intelligence. So: on the one hand, we celebrate the Tuyucas' evidential markers as indicating their diligent skepticism. But then, something confronts us: evidential markers are all but unheard of in Africa or Polynesia.

We must restate that gorgeous proposition here: *Languages evolve according to the needs of their speakers*. But what about that this time, cherishing that proposition means that Africans and Polynesians are *not* hypersensitive to sources of information? They are *not* skeptical. They are apparently not—let's face it, this is where the logic takes us—terribly bright. We gifted the Tuyuca with intelligence but must deny it to Africans and Polynesians. Note that this requires harboring such an idea despite how many Africans and Polynesians live in intensely challenging environments, living lives quite similar to those of the Tuyuca. But it would seem that at the end of the day, the Tuyuca rose to the challenge with evidential markers while Africans and Polynesians just shrugged and hoped for the best.

Few will desire to rest there, and as such, we might open up to supposing that evidential markers are less linked to culture than it might seem when we encounter them in one group like the Tuyuca. Evidence for that perspective in fact abounds. If evidential markers emerge according to the “needs” of languages’ speakers, then why are they common in the Native American languages of western North America but not the ones in the east? Is it really true that Native Americans living in the Bay Area—not exactly the most rigorously demanding environment—“needed” to be more hypervigilant to sources of information than the ones the Pilgrims endured in those long, frigid winters in the Northeast? (“Squanto says there are blackberries still growing three miles that way ...”)

Plus, the world over, one language will have evidential markers while the one next door, spoken by people living under the same circumstances, will not. In Australia an Aboriginal language called Kayardild has evidential markers—but if they emerged because its speakers “needed” them, then why did the Yukulta language right across the water not have evidential markers? (Yukulta is now extinct, but it was described while some of its speakers were still alive.) The Yukulta lived the same life as the Kayardild, and in fact their languages were basically variations on a single language, in the way that Swedish and Norwegian are.

Evidence of this kind goes on and on. Despite the initial plausibility of thinking Tuyuca has evidential markers because its speakers have a specific need for them, when we pull back the lens, it is clear that evidential markers are not distributed according to what cultures are like. In fact, there is a coherent explanation for where we find evidential markers and where we don’t. However, that explanation is not based on cultural needs. The explanation is, quite simply, chance.

The Irrelevance of Necessity

The evidence suggests that evidential markers also tend to spread from one language to another as a kind of grammatical meme carried by bilinguals, in which case the markers are blithely scattered across a wide range of cultures quite unconnected to how vigilant any given one of them is about scuttlebutt

and animal noises. This is, essentially, another rendition of chance.

There is a comfort in this reality. At the end of the day, how much of a compliment is it when a Westerner praises a group of people for being skeptical? There is a certain condescension in it, a hair's breadth from "Good show, you all are as bright as us!" A writer I shall not name praises a Third World people on the acknowledgments page of a book for, among other things, being witty and "irreverent"—that is, what goes often under the name "skepticism." But why wouldn't they be witty and irreverent? Which *Homo sapiens* aren't? The passage is deeply condescending. And yet, for whatever it's worth, the language of the people has no evidential markers!

However, it does have definite and indefinite articles, words for *the* and *a*. Those little words allow a language's speakers to distinguish something already mentioned (*the* fact that some languages have evidential markers) from something new to the exchange (*a* related point about definite and indefinite articles). Maybe we can save this particular unskeptical group by celebrating its intelligent distinction of the definite from the indefinite? Not really, because overall, having words for *the* and *a*, as utterly normal as it feels to an English speaker, is something of a European kink. East of, roughly, the Baltic and the Balkans you don't find much *the* and *a*.

As such, if *the* and *a* are based on speakers' needs, then we have to say that Western Europeans are more given than most of the world's peoples to distinguishing things already mentioned from things just brought up. Not only would this make little sense and even seem a tad arrogant, but there are microcosmic problems as well. Pity the ethnographer charged to determine why Finns have no "need" to distinguish *the* and *a* whereas the Dutch do. Plus, even if we could cobble together a solution to these conundrums (Finns are more reserved than the Dutch, and so they don't need to ... be as ... specific ...??) the reality of things throws us another curve ball. Having words for *the* and *a* is otherwise common in a strip of languages across the middle of Africa. Not the West Coast or the southern segment, mind you, but a band across the middle, composed of people with decidedly little in common with people in Barcelona or Copenhagen and in fact having had, historically, vastly little contact with them. Once again, the explanation here is not culture but chance.

Worldwide, chance is, itself, the only real pattern evident in the link between languages and what their speakers are like. As often as not, what seem like possible links end up not being what we would expect and would be highly unlikely to motivate a study. A key example is cases that force us into supposing that people *don't* “need” something that they nevertheless clearly have, and that all people do. In New Guinea, for instance, it is quite common for a language to have one word that covers both *eat* and *drink* (and sometimes also *smoke*). Yet what “need” does this address? It is unlikely that anyone would propose that dozens of separate tribes on this massive island are actively uninterested in the differences between foods (“How many times do I have to tell you to *stop calling attention* to the fact that fruit is different from stew??”). Descriptions of such groups’ take on food in fact regularly include a wide variety of foodstuffs and preparations, with feasting as a regular aspect of communal life.

This then sheds light on what we might make of a superficially more auspicious situation. Navajo takes things to the opposite extreme: how you say *eat* depends on whether you are just eating in general or whether what you are eating is hard, soft, stringy, round, a bunch of little things, or meat. Future research could determine how the place of food differs in Native American cultures versus ones in New Guinea? Perhaps, but what do we make of the fact that an Aboriginal group across the water from New Guinea in Queensland, the Dyirbal, having lived lives over millennia that New Guineans would find thoroughly familiar, have three different *eat* verbs for eating fish, meat, and vegetables? Or that an Amazonian group called the Jarawara, living lives also quite like those of New Guinea folk, say *eat* differently depending on whether you have to chew something a lot or a little, whether you have to spit out its seeds, or whether you have to suck on it?

All of this is neat, but not in showing us anything about what people need in their language. A speculation about how something in a language “must” reflect something essential in its speakers is incomplete without considering the distribution of that something in languages worldwide.



The truth about how languages are different is that largely they differ in the

degree to which they do the same things. Some take a trait further than others, not because their speakers “needed” it to, but because a bubble happened to pop up somewhere in the soup. In English, one bubble was the emergence of *the*. It was basically a matter of the word *that* going viral. *That* singles something out—*Not that cat, the other one*. *The* is the child of *that*: it’s what happened when *that* wore down. The wearing down meant that the word is shorter, for one, and then also that the meaning is less explicit: *the* throws a dim but useful little light on something—*I meant the green one, not just any old crayon*. English, then, is particular in marking definiteness even when context would have done the job just as well. New words emerge this way all the time: *a* and *an* started as *one*.

Yet we have seen that the birth of *the* cannot have been a cultural event. Bubbles generally aren’t. There is simply no reason we could identify that a word like *that* wore down into the word *the* so often in the western half of a peninsula called Europe, in a band running across the middle of Africa, but much less anywhere else. Crucially, no language leaves definiteness completely to context; it’s just that English happened to take that particular ball and run with it. Many languages use good old *that* (and *this*) to mark definiteness when explicitly needed. Chinese does it with word order: *Train arrived* means *the* train came, while if you say *Arrived train* it means that *a* train came. Languages all accomplish the same things despite how massively different human cultures are. It happens, however, that each language happens to develop its random private obsessions, rather like a little fellow who can name all of the presidents’ wives for no real reason (that was me as a lad).

Evidential markers are examples; they emerge via the same kind of process as words like *the* and *a*. They seem so “cultural” from our vantage point, but then *the* and *a* would seem just as “cultural” to a Tuyuca. Both traits are bubbles in the soup. All languages mark evidentiality to some degree. English’s *That must be the Indian food* is paralleled by Spanish doing it with the future tense (*Será Juan* “That must be John”). It’s just that some languages happen to take that ball and run with it. Meanwhile, all people eat, drink, and like it. Some languages happen to bubble up a bouquet of words for different kinds of eating, some just bubble up with a word for *eat* and a word for *drink*, while some don’t even bubble in this area at all and just leave

it at a single word for taking things into your mouth.

It is the nature of language for such bubbles to pop up. All languages are on the boil; none sit unheated. The only question is where a language's bubbles will happen to occur. It's exciting, actually—examining this language and that one, there is almost a suspense as to which intriguing feature will turn up in which one. Another way of seeing it is as a kind of extravagance. In any language, there are some things that it elevates to an art, sashaying rather than walking, performing instead of just going through the motions. “What will the fashions be next year?,” one might wonder—and in the same way you wonder what marvelous predilection the next language you encounter will happen to flaunt. Yet, unexpected as this may seem, these predilections do not track with culture. It's more like someone opting to sport a certain scarf for one season just “because,” and maybe developing a penchant for a certain color for a while some years later. Serendipity plays a much vaster role in language than one would expect.

Nothing makes that clearer than the fact that many of the things we think of as absolutely fundamental to getting our thoughts across are, in grand view, more bubbles. There are languages, for example, where you do not have to mark tense at all—no past, no future. Context takes care of everything, and yet the people live life as richly as we do. What that means is that even having tense is, technically, a pretty scarf, a bauble—or bubble. After all, if most of the world's languages developed tense because they “needed” it, then we must say that various peoples did not “need” to know whether something happened before or hasn't happened yet. But what kind of people would these be? Who would be comfortable smiling at them and telling them that unlike us, they don't need to situate themselves in time? Never mind that the people are in New Guinea—last time we checked, someone was already accusing them of not being gourmands!

Or, there are languages where there are simply first-, second-, and third-person pronouns, but no difference between singular and plural among any of them. We're used to this in English with *you* applying to both one and more than one person (and that is odder, as languages go, than we are often aware). However, imagine if *he*, *she*, *it*, and *they* were the same word, and *I* and *we* were the same word. There are people who don't have to imagine that,

because that's the way their languages are! However, it would be hard to tell them that they do not "need" to distinguish between *he* and *they*. For what reasons would a group of human beings "not need" to make that distinction? This time the Pirahã are among those whom we would have to designate as having such peculiarly sparse needs. This just in: "Tribe with No Words for *We*, *They*, or *Y'all* Cannot Distinguish Groups from Individuals"? Rather, most of the world's languages, including English, make the distinction because all languages have bubbles. Context is capable of taking care of a great deal. All languages express much, much more than anything any human beings "need."



Once we understand this, it is no longer surprising that languages seem almost willful in how little their makeup has to do with what its speakers are like. It's all about the bubbles. The Nunamiut and Tareumiut Eskimo have distinctly different cultures: the Nunamiut are hunters living in family groups while the Tareumiut are whalers living in big villages. Yet they speak the exact same language. Another one: when *t* or *d* come at the end of a word and after another consonant, we often let it go when speaking casually. We are much more likely to say *Wes' Side Story* than *Wes-t Side Story*. Someone may well say *I tol' Allen not to* rather than *I tol-d Allen not to*. This is true of all English speakers to varying extents. However, as it happens, before a pause in speaking, New Yorkers are more likely to drop *t*'s and *d*'s than people an hour-and-change down the road in Philadelphia! That is, if *You're gonna catch a cold* is the last thing someone says before quieting down for a while, it's more likely to come out as *You're gonna catch a col'* in New York than in Philadelphia.

Try to wrap your head around what this would mean culturally—are Philadelphians more properly spoken than New Yorkers? Note that the study that discovered this focused on ordinary people, not the hypereducated elite. Our question is therefore whether the people in the *Rocky* movies are more careful about pronunciation than the people in *Saturday Night Fever*. Plus, we mean only in that quirkily specific case, before a pause. In general both New Yorkers and Philadelphians drop their *t*'s and *d*'s all over the place just like anyone else—although in other subtly differing ways that no speaker

could ever be aware of consciously. It's all about bubbles again.

Why would a language have something its speakers don't need? We can see now why the question, so reasonable in itself, misses something about language that only becomes evident in view of all of them at a time: most of a language's workings are not due to need, but happenstance. Whorf's idea about "intricate systematizations" was that to learn a language's grammar was to learn how its speakers think, how they are: master Tibetan's grammatical patterns and you are mastering, as it were, Tibetanness. This is a plausible place to start when thinking about language, but less attractive as a place to remain. Tuyuca speakers no more "need" evidential markers than Western European and Central African persons "need" words for *the* and *a*. Traits like this in a language do not emerge because of the way its speakers think, upon which there is also no motivation to suppose that these linguistic traits consequently shape speakers' cultural essence. As tempting as this latter "holistic" approach is, while it allows the viscerally attractive idea that the Tuyuca are uniquely attuned to their environment, it also requires that millions of people in New Guinea don't care about good eating.

Not *Those* Things?

There could be a sense that the traits that are rather obviously unamenable to any cultural analysis are not the ones Whorfianism applies to. However, it is unclear why they would not be. If referring to time with the words *up* and *down* makes Chinese people process life in a significantly different way than English speakers, then why *doesn't* a single word for *eat*, *drink*, and *smoke* mean that people in New Guinea process ingestion differently than other people? One can even imagine ethnocentric Victorians cooking up—so to speak—an idea that these New Guinea verbs signal the primitive palates we would expect of "savages." We dismiss that easily—but upon what grounds would people's languages correspond to their cultures only in attractive ways? Upon which grounds would we even decide what, in the grand scheme of things, is immutably attractive?

Sheer logic forces a simple conclusion: the idea that Amazonians have evidential markers because they need to be alert to their environment is every

bit as much a just-so story as one that New Guineans have an eat-drink verb because they can't be bothered to savor their dinner.

“No Word for X”: Caveat Lector

One hears now and then of things about some language that suggest an actual robust correspondence with its speakers' take on life, but in my experience they always turn out to be myths.

There are, to be sure, countless things that any language does not have a single word for that clearly do not reflect anything its speakers are or feel. The French person might wonder whether there were people who *don't* have a word for the kind of person who always seems to be a little cold like their word *frilleux*. Yet English doesn't—we have to say, indeed, “I'm always cold.” Yet few would propose that this is because the French are more sensitive to breezes than others. Clearly, that the French have a word *frilleux* and we don't is just a jolly little accident, as is the fact that Swedish happens not to have a word for *wipe*. Let's not even imagine telling Swedes they don't wipe—it's just that they use words like *dry* and *erase*, which serve just as well.

The propositions that really would suggest a different take on life always fall apart. The film *Amistad* taught us that the African language Mende has no word for *may*. The idea was to highlight the basic innocence of one of the African characters, his language supposedly requiring one to specify whether something is or isn't, with no gray zones. It was great narrative drama, but cartoon linguistics. It is safe to say that no language lacks ways of conveying degrees of confidence in truth, given that all humans have the cognitive equipment for perceiving such gradation and urgently need to express it day in and day out. Mende, in fact, has a much more robust and elaborate subjunctive construction than English does. In that language, one not only does and doesn't, but may and may not.

The Language Log website's “No Word for X” department is a useful archive of how things like this never pan out. I have also heard that a dialect of Berber, spoken in northern Africa by people who were living there on the

land long before Arabic got there, has no words for *win* or *lose*. We are supposed to think of them as in contact with the communal, cooperative essence that we acquisitive individualists in the West have fallen for. There is value in the lesson, but it would be more honestly conveyed by addressing what the Shilha Berbers are like as a culture, not their language. Anthropology tells us that all human groups have games, especially among children. Are the Berber really alien to children engaging in scrappy competitions in which one person comes out the victor and one doesn't? If not, then right there, we know that these are not a people with no concept of winning and losing; the question becomes whether they watch winning and losing happening all the time and yet mysteriously lack a word for it. This would seem highly implausible, not to mention condescending.

And then, a dictionary of precisely the Shilha's dialect of Berber reveals words for *win* and *lose*. Perhaps they do not use the words just as we do, indeed—especially since the dictionary is in French and *gagner* and *perdre* themselves overlap only partially with English's *win* and *lose*. However, the same dictionary also had words for *conquer* and *fail*. Plus, as it happened, I once had a Berber-speaking cab driver, and when I asked him how to say *win* and *lose* he immediately tossed out exactly the two words for them I had seen in the dictionary! Let's face it, these people not only know what winning and losing are, but talk about them with ease.

Who Thinks Otherwise?

Some readers may understandably wonder whether there are actually people informed about languages and cultures who would find anything I am putting forth at all novel. There are: how one perceives such things varies immensely depending on training, cultural predilections, and intent, and a robust strain in modern academia is quite committed to the idea that languages represent cultural thought patterns. For example, Swarthmore's K. David Harrison has posited that depicting language diversity as marvelously random, as I have, is "stunningly obtuse." He happens to have done so in a passing critique of an article I wrote in *World Affairs*. That personal aspect, however, is not my reason for using his position as an example here. For instance, his claim that I

think language's complexities render them unfit for the modern world and that it would be better if all people were monolingual are so contrary to anything I have ever written that the proper response is silence.

However, Harrison's take on the link between language and culture is useful to the argument here in demonstrating exactly the unwitting misimpressions I have described in this chapter. When it comes to grammar, as opposed to what they have names for, languages are awesomely different, but not in ways that correspond to how peoples are different. Harrison disagrees: "If so, then Stonehenge and Machu Picchu differ only because of different randomly evolved building methods, but tell us nothing interesting about the ancient Neolithic and fourteenth-century Inca cultures."

But that's just it—languages are not things. Stonehenge and Machu Picchu, as tokens of culture, tell us plenty about the people who built them. However, if we had records of the language Stonehenge's builders spoke, its structure could tell us nothing about what they were like, nor would early Quechua teach us anything about what it was to be an Inca in the 1500s. Both languages, of course, had words for things important in their cultures. However, from where the idea that what shapes thought is the word for something rather than the thing itself?

Harrison continues to protest against the idea that language changes randomly: "It's hard to imagine a lesser regard for the products of human genius and their great diversity that arises differently under different conditions. As people have spread out and populated the planet, they have continually adapted, applying their ingenuity to solve unique survival problems in each location, and inventing unique ways of conceptualizing ideas. Geographic isolation and the struggle for survival have been the catalyst for immense creativity."

But languages are not like paintings. They do not develop via people applying their ingenuity or being creative. Languages develop via step-by-step driftings that operate below the level of consciousness, and this is not an opinion, but a fact, fundamental to any introductory class on language change. How else, after all, did Estonian end up with fourteen cases?

nominative	raamat	“book”
genitive	raamat-u	“of the book”
partitive	raamat-u-t	“some book”
illative	raamatu-sse	“into the book”
inessive	raamatu-s	“in the book”
elative	raamatu-st	“out of the book”
allative	raamatu-le	“onto the book”
adessive	raamatu-l	“on the book”
ablative	raamatu-lt	“off from the book”
translative	raamatu-ks	“like a book”
terminative	raamatu-ni	“as far as the book”
essive	raamatu-na	“as a book”
abessive	raamatu-ta	“without the book”
comitative	raamatu-ga	“with the book”

On top of all of that, Estonian is one of those languages where irregularity is practically the rule. Does anyone plan such things? If this is creativity, I’m not sure we’re giving Estonians a compliment.

The impression that people “create” their grammars is easily maintained when we marvel at a language unlike ours spoken by indigenous people. When a language works so differently from ours, a natural gut-level impression is that it is a departure from normality, and even that this departure must have been deliberately effected, or must have arisen because of some pressing circumstance such as interesting cultural particularities. However, the notion falls apart when we turn the lens on ourselves. Spanish has subjunctive endings. Who “created” them? In what way do they correspond to life in Madrid as opposed to life in Tokyo? If we are to say that they are historical baggage from another time, why was a subjunctive more useful in Old Castile—or Ancient Rome, where Spanish’s ancestor Latin already had a subjunctive—than in feudal Japan?

Or, if we are to say that the Whorfian analysis isn't supposed to apply to the subjunctive, why not? It is not clear from Whorfian work to date what would disqualify the subjunctive from the analysis while permitting numeral classifiers, color terms, and the future tense. After all, if European languages didn't have the subjunctive and we encountered it instead in a tiny language spoken in a rain forest, wouldn't it be the first thing treated as evidence of its speakers' layered perspective on truth conditions?



The magnificence of how a language is built is not its correspondence with folkways, cosmology, and thought patterns, but in its protean, fecund independence from these things, ever happening to burgeon into new spaces of meaning and complexity, evidencing what one can barely help thinking of as a kind of irrepressibility. To think of the most interesting thing about language as being how it sheds light on its speakers' thought processes is like cherishing Beethoven's Seventh Symphony not for its nimble melodies, richness of harmony, surging thematic progressions, and stirring orchestration, but for the handful of dimly flickering hints that it just might lend us about what Beethoven was like as a dude.

In the synaesthetic sense, a language smells like mowed grass or a steamy jungle. It cooks—bubbles, as it were. However, it does not do this on assignment from a culture's needs. Like culture, but largely apart from it, language is quite the marvel in itself.