

# Audio and Video Scripts

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## Unit 1

### Lecture, Part 1: The Nature of Language Learning [CD 1, Track 2]

Have you ever wondered how it is that children are able to acquire a language, apply the unspoken rules to the language, and then by a very young age have a fairly complete mastery of their language? How about adults learning a second language? Now are these two things the same processes? These are some of the questions we will look at in today's class. Now, there are many divergent views on these topics and as you'll see, especially when it comes to adults learning a second language, the views are often contradictory. Now, this isn't surprising. There is really no way we can get into our brains, you know, to see what's going on. What we can do is look for evidence in the language we use that may support one or another theory about how language is actually learned.

All right, first, let me ask you, how many of you have kids? A few of you. Okay, as we talk about first language acquisition, try to think about whether what I'm talking about applies to what you have observed with your own children. Now, as a linguist, my kids became the subject for my research. All parents are amazed at how fast their kids learn, but I was constantly analyzing what they said . . . my home was like my laboratory. Now, what about a second language? How many of you have studied another language? Okay. I'll, I'll have you draw on those personal experiences later as we talk about theories of second language acquisition this afternoon.

So how is it that by the age of six, children have a grammar that approximates that of an adult? Now, there are differing views on how it is that this happens. One that was proposed by renowned linguist Noam Chomsky is called universal grammar. Now, he argues that people are born with the rules of a universal grammar that are then fine-tuned to the languages children hear from their caregivers. It's, it's sort of a case of narrowing the more general rules to the language(s) that one is exposed to as a child. Now, one of the questions that arises is whether or not this same process happens when learners are older . . . post-puberty, say. This does not mean that the grammar of all languages is identical. What it means that the number of possibilities of language rules are finite. Children acquire language very quickly, and in Chomsky's view, far too quickly to be explained by the exposure they have to language in their environment.

All right, let me explain. Now, do children have to have heard something in order to produce it? Absolutely not. Children can create innumerable unique utterances, based on a relatively small number of examples from their environment. Children will go through stages of development that tend to be similar across languages. For example, children learning any language tend to make use of the same limited set of meanings in their early sentences. Okay. Let's look at some of those.

One of those is that of ownership—*Dadda's shoes*. Another is describing events—*Me fall*. In early language children use labeling—*That dog*. Another is locational relationships—*doll in box*. Now, notice that these are usually two-word sentences. Another pattern in early speech is learning ends of words more quickly, so for example, *nana* for *banana*, *mato* for *tomato*. This is evident even in languages when the first syllable of a word is always stressed.

Now, Chomsky's work came as a reaction to a psychological theory that was popular in the '40s and '50s. It was called behaviorism. Now, this is the whole stimulus-response model, you know, if you reward a dog enough, then the behavior will become automatic. The belief was that if you imitate language accurately and get rewarded—maybe through praise from a parent—you'll learn the language. This theory just does not explain what happens with children though.

Now you know, much of what children produce in their language at a young age is not what you would call grammatical. If language learning were through a process of imitation, how is that my son would say: *We brought the cookies*? Now what's interesting here is that while my son's comment on the cookies isn't grammatical, it's understandable—he gets his message across. And his deviation from the grammatical norm is reasoned. It shows evidence that he's, you know, working things out in the language. So let's look at this together. What is the time reference here? Present or past?

*Student 1:* Past

*Teacher:* And how do you know that?

*Student 2:* Because your son put the *-ed* on the end of the verb.

*Teacher:* So what's deviating from the norm? He added the past tense *-ed* marker to the irregular verb *bring*, right? Now, I know this is obvious, but this tells us that he isn't imitating language, he's acquiring patterns of the language. Here that *-ed* means past, right. So he's heard the irregular form and maybe he doesn't realize that there's any difference between *bring* and *brought* yet. OK, now later on, maybe even in a matter of months, he'll be saying, *We brought the cookies* as he fine-tunes his language.

Now, another view of the behaviorists was that children's language develops through feedback—that's the response part of the process. So that means that, as parents correct their kids, they'll correct their language errors, right? Wrong. Research has shown that young kids don't tune into our feedback at all and, in fact, parents of small children don't typically correct them. And if they do, the kids don't pay attention to the correction, they pay attention to meaning. Here's an example to show what I mean.

*The 3-year-old says:* I clean my room, mommy.

*The mom says:* No, I *cleaned* my room.

*The 3-year-old:* Not you, *I* clean my room.

Now, there is some more evidence that suggests that there are some constraints to the number of rules a language uses, that there is this universal grammar. In many parts of the world, something called language pidgins develop. This is when people come together who do not have a common language, but they have to communicate, usually for some economic reason. What emerges in this situation is a language with a shared vocabulary and radically simplified grammar. People may form their sentences differently, but using the same vocabulary words allows them to get their immediate needs met. Now, when children are born into these communities where the adults speak a pidgin, the children will expand the grammar of that pidgin. This new language is called a creole. So they'll share the vocabulary with their parents, but they will not share the grammar. Now, this indicates that there's this natural human phenomenon to find a way to create systematic patterns or rules to govern sentences that can be understood by others. Again, these kids didn't learn this by imitating input from the parents. There was something innate about it.

### **Lecture, Part 2: The Nature of Second Language Acquisition [CD 1, Track 3]**

Now, many of you have said that you have studied a second language. Learning a second language—maybe a third or fourth for some people—can be very different for kids and adults. Have you ever met families new to the United States and then been astounded at how quickly the children seem to pick up English? Then you meet the parents of the same kids and see how much they're struggling to communicate in English? Now, we'll look at those same theories about the process of learning a second language.

There are those in the field of second language acquisition who believe that there is a critical period for learning languages. It is suggested that at around the age of puberty, significant brain developments make the language acquisition process more difficult. And, and those who believe in a strong version of this hypothesis believe that people can never reach complete mastery of a language if

they start learning it after puberty. Now, others believe in a weak version, sort of that mastery will be more difficult but not impossible after that time. Native-like pronunciation, in particular, is often thought to be the most difficult aspect of the language to acquire for a learner past that critical period for language learning. You can kind of think of this critical period as the closing off of the optimal learning period.

Now, we need to look at this theory a little more closely. Does this work the same for people learning a language in a country where the language is spoken as a first language? In other words, is it the same thing for those immersed in the target language, day in and day out, as it is for those learning it as a foreign language? For example, those studying it in a classroom for three or four hours a week who then go home and use their first language. Clearly not. So let's see what other factors may affect language learning or acquisition for those beyond the age of puberty.

For the sake of example, let's consider some scenarios of second language learners in the United States learning English. Okay, so think about a young girl who spends all day in an English-speaking elementary school. She is bombarded with English all day, and is surrounded by pictures, words on the walls of her classrooms, and she has the opportunities to communicate in English with her peers you know, in classrooms, at lunch, on the playground. Now as we'll talk about later, some school environments are particularly conducive to promoting language acquisition, but clearly this child is getting a lot of exposure to English. Okay, so let's compare her to her mom. Let's say her mom is a newly arrived refugee. She's never studied English or any other language before coming to the United States. Okay? So, she's home with the smaller kids and, of course, she is using her first language to communicate with them. Sure—it's make sense. So, she doesn't have a job yet, where she maybe would get some more exposure to English. So in this situation, is it the age of these two learners that would affect language learning, or is it the amount of exposure to the target language?

Let's compare that mom to an immigrant from Eastern Europe, say, who moves here to the United States to join her family. She completed graduate studies in her country, is fluent in German, and is joining a family who has lived in the States for 20 years. She's an adult learning English, but her shot at acquiring English well enough to find a job fairly quickly is much greater than the refugee I described. They're both adults, but the immigrant brings other factors that affect language learning to the table. She has prior experience with learning a foreign language, and she has extensive experience in a formal classroom setting. So when we think about these things, when we think about language learning, we need to look more at the characteristics of language learners than just their ages.

So, researchers in our field have proposed many theories of second language acquisition over the past several decades. I have to say there has been virtually no agreement on one particular theory. For the rest of the lecture, we're gonna look at the two camps—the nativists and the social-interactionists. Social-interactionists view language as an activity learned in interaction with others, whereas nativists see language ability as this innate capacity to generate grammatically appropriate sentences.

Just as with first language acquisition, those who take an innatist or nativist view believe we are biologically programmed to be able to acquire language, and not just our first language. They would disagree with the behaviorists. Now, remember, that's the view that language is learned through that stimulus-response model. The behaviorist view had a strong influence on language teaching in the 1960s and the 1970s, and it's still found today in language classrooms all around the world. Methods of teaching that rely heavily on drills and memorization are influenced by this theory. But as with kids, we have evidence that adults are learning through a more cognitive process; okay, so in other words, they are trying to make sense of the language and are able to create innumerable unique utterances based on a limited amount of input. Okay by that, I mean, they say far more than what they hear in their classrooms or learn in their language textbook. That's why they make so many mistakes. And they should. Mistakes are evidence of learning. In practice, some approaches to teaching that are influenced by this theory suggest that adult learners need abundant meaningful input and will not benefit from a lot of error correction.

Now those interactionists generally agree with innatists that an optimal learning environment is one where learners are receiving a lot of comprehensible and meaningful input. Interactionists also believe that those learning a second language need meaningful interactions with other users of the language. Now, in those interactions, people try to negotiate meaning to get their messages across. They might simplify what they say, or paraphrase, right? They might ask the other person to clarify something that they have not understood or do comprehension checks, right? So, they might slow down or speak more deliberately. Don't you often see people do that when they talk to non-native speakers of the language? Now slower and louder isn't probably the best strategy, but saying something a different way or maybe slowing things down—it can really help. Now, all of these are what linguist Michael Long calls interactional modifications. Interactionists see a similarity with first language acquisition as well, suggesting that these are the same kinds of modifications mothers make as they communicate with their children. Now, both of these theories have had a strong influence on current practices in language teaching, where the focus is more on developing communicative competence in a language rather than explicitly learn-

ing grammatical rules. Now, ideally, in a communicative classroom, language learners are picking up the grammar of the language. They just aren't talking about the rules of the language necessarily. You can use the past perfect correctly and in a meaningful way without necessarily knowing that the form is called past perfect.

**In-Class Student Presentations: Listen for the Main Idea [CD 1, Track 4]**

Are you or do you know anyone who is bilingual? I speak French very well, but I don't consider myself bilingual. I was interested in talking to people who grew up speaking two languages and who are equally comfortable in the two languages and then finding out about their affiliation to their two language communities. In other words, did they have a stronger affiliation to one or the other? Today I'm reporting on my study of Spanish-English and Hindi-English bilinguals here at the university.

In my study, I was looking at bilinguals' affiliation to a language community when growing up and then also at their theoretical affiliation; in other words, how do you think you will be affiliated with this language community in the future? From there, I looked at the correlation between these beliefs and their ideas about the importance of maintaining or increasing their proficiency in Language A, either Spanish or Hindi. When I say Language A, I mean the language they speak other than English. I included 11 people in each group, so 22 people overall. I gave participants in the study a questionnaire, and I interviewed them.

First of all, I wanted to find out how and when they used Language A outside of the home growing up. I asked: "Did you have neighbors who spoke Spanish/Hindi? Did you have classmates who spoke Spanish/Hindi? For the Spanish speakers, only three of 11 answered yes to those two questions, so most didn't grow up in a bilingual community. This was the same for the Hindi speakers. Most of the participants only used their home language with parents or children of their parents' friends, not with their classmates or friends. They used English with those. Another interesting point is that many said they spoke and continue to speak English with their siblings. So I would say that most of the participants grew up in an integrated community. Hindi obviously, um, is not, as widespread in the United States as Spanish so in terms of usefulness or, accessibility in the United States.

Next, I wanted to see if they thought they would maintain opportunities to use Language A in the future. For this point, I asked: "Do you think you will live in a country where Spanish/Hindi is spoken?" and "Do you think you will raise your children bilingually?" Only one person said he or she would live in a Hindi-speaking country, basically, India, right? Whereas several of the Spanish-English bilinguals said they would live in a Spanish-speaking country, only two in each

group said they would definitely not raise their children bilingual. One said: “I’m not sure if I’m proficient enough to bring up my children that way.”

So as you can see by this, the majority of the participants sampled seem to be pretty invested in . . . uh . . . thinking that bilingualism is a good thing, you know, overall, something they do want to pass on to their children. In the interviews that comes out well . . . um, so I was interested also in how these beliefs correlate with how important it is to them to maintain both languages or increase their proficiency in Language A. After all, most said they really only used English with their elders, so is it realistic to think that they can maintain the language other than English?

To get an idea of their investment in keeping up with Language A, I asked them what organizations—religious, cultural, or other—they belonged to where they used Spanish or Hindi. I also asked them how likely they are to marry someone who is bilingual in English and Language A. There was a definite correlation between these two questions. The three people who said they were involved in religious organizations were the ones who said that they were very likely to marry someone with the same language background.

When asked to rate how important—with 1 being not important and 5 being extremely important—it is to maintain both languages, those with the highest ratings were also those who belonged to outside organizations and were somewhat more likely to marry someone from their culture. In addition to this, those who grew up in a truly bilingual community also rated on the high end. So what do these results tell us about bilinguals’ affiliation to their two language communities? My conclusions are that people who are raised in a bilingual community, are more involved in a bilingual community, or who see themselves becoming more involved in it in the future are also more concerned with maintaining Language A, be that Hindi or Spanish. As a future ESL school teacher, I am very interested in finding ways to support language development of English and maintenance of my students’ home languages. As we can see, that can take hard work!

## Unit 2

### Lecture, Part 1: Facing Extinction: Causes [CD 1, Track 5]

Good morning. In recent lectures, we’ve been talking about populations, demography, life histories, and, ah, when I talked about population growth, we took, ah, a look at the patterns of population growth for different species. Um, I want to start off today by reviewing some key terms and concepts. We’ll be looking again at logistic patterns, um, carrying capacity, factors that affect population growth of a species, both density-dependent and density-independent, and we’ll

also look at, uh, at what happens when there's competition between species, or interspecific competition. (Stop here for Exercise on page 35.)

Okay, let's start by reviewing what we call a logistic pattern, where a population grows to its carrying capacity and stays there. Uh, remember that in some cases the population growth of a species shows a nice logistic pattern, which as you might recall is when a species grows to a carrying capacity and then settles at that point and, uh, stays there for a while. What is the carrying capacity? Remember, it's the number of individuals an environment can sustain without significant negative impacts to the organism. In other words, it's the, uh, greatest supportable population of a species within an ecosystem. This occurs when resources are plentiful and there is no competition between species. So, this doesn't happen all the time. In fact, as you'll see, more often what we really see are populations that fluctuate within bounds. This is what we mean by regulation. Ah, regulation is the effect of mechanisms—such as climate change or lack of nutrients—that return a population back to equilibrium values every time the balance of species and, uh, resources are shifted; that is, there are factors that are causing the population to stay within bounds rather than completely crashing and, uh, going extinct, or going into exponential growth indefinitely. So, the population goes up and down, sort of like a wave pattern, but stays within bounds that allow the species not to go extinct.

Remember that a population can never grow indefinitely because there are never indefinite amounts of nutrients, energy, and habitat. Each habitat has a capacity ( $K$ ) that can in the simplest case be regarded as a constant  $K$ .  $K$  equals the highest possible number of individuals a habitat can sustain.

Now if the uh, if the population, for some reason, goes above  $K$ , a density-dependent factor will often kick in. Simply put, a density-dependent factor, uh, affects the birth rate or mortality rate of a population in ways varying with the population density. So, for example, if a high-density population is struck by a disease, the disease will spread far more rapidly among a dense group than if the members of that species lived far apart. Uh, when this happens, the population will go back to its carrying capacity and reach equilibrium, or a balance.

So, um, when the population density is low, resources are plentiful and there is no competition for food. So, when the population density is low, the population growth won't usually depend on population density, nor will it depend on the amount of resources available since, um, since every species' intake is limited by how much they can feed. There's little risk of the species running out of food. This changes though as populations approach their point of equilibrium. This is when some sort of limit kicks in; a limit in food or competition with other species, and that's when we see the fluctuations. So, the effect of a density-dependent factor on the size of a population depends on the original density of that population.

Now, there are other factors that can also act in a density-dependent manner, and this is when we start looking at species interactions. For example, there can be predation, or predators, acting in a density-dependent manner. That is—ah, as the population reaches its carrying capacity, gets more and more abundant—it, may be easier for predators to find the prey, they might eat more of them, and so predation gets proportionately greater as a density-dependent factor. Over time, species evolve to protect themselves against predation. In evolutionary terms, this helps explain why, uh, why marine fishes have evolved a variety of behaviors, colors, and features that reduce their risk of, of being eaten. After all, being eaten by a predator reduces the reproductive value to zero. These fish do that because the limit imposed by food, oxygen, and other resources in the ocean (carrying capacity) is higher than that imposed by predators, so if they devise ways to protect themselves, they still have room to grow in numbers. So when we look at shorter-term changes in the carrying capacity of a species, we can see how, over time, these can affect the evolutionary process.

We could also have interspecific competition—that is, between two species—that becomes more intense as they reach their, uh, carrying capacity and they are both feeding off the same prey or the same resources in the same environment. Actually, let me give you an example for plant species because I know I see this in my own yard in the woods behind our house. When trees in the woods grow taller than surrounding trees, they are able to absorb more of the incoming sunlight. They continue to thrive and then block out light for the lower level trees. They are in competition, so to speak, for a limited amount of sustenance, in this case the sun. An example among animals would be something like the competition for prey between, ah, cheetahs and lions, you know, since both species feed on the same prey, they can be negatively impacted by the presence of the other in their environment.

Finally, we have density-independent factors. These are influences or events that affect the growth of a population, independent of the population's size. Most often these are external factors. The physical environment, for example, drought, volcanic eruptions, cyclones, floods, or forest fires—or even the impact of meteorites—are examples of density-independent factors. These can also be factors created by human intervention in the physical environment, such as the introduction of non-indigenous species by man. So, uh, not only can these factors limit population growth, but they also often drive existing populations well below their previous level.

Let's look at an example from Venezuela's Lake Guri. With the closing of a dam there in, um, 1986, over a thousand square miles were flooded, which turned hundreds of hilltops into islands. Within eight years, the smallest islands, those that were, um, under one hectare, lost 75 percent of the species that had

lived there. Um, the larger the island, the fewer species it lost, however. It was found that all the islands lost the top predators, such as pumas, jaguars, and eagles. Those animals that did remain greatly increased their populations because of a reduction in, uh, competition for resources, and no longer being eaten by the predators. More often than not, these human interventions led to the endangerment of species, rather than excessive growth of a species. Ah, we saw this when DDT was used as a pesticide and the bald eagle population nearly went extinct. There are many other hazards that are byproducts of our highly industrialized societies and, uh, human intervention—carbon dioxide emissions that lead to the greenhouse effect, uh, deforestation, overfishing, oil spills, just to name a few. All of these would be examples of density-independent factors.

### **Lecture, Part 2: Regulation of Species [CD 1, Track 6]**

Okay, what we've looked at so far doesn't reflect what often happens in an ecosystem, which is that we might see a population that goes into exponential growth and then, it gets hit by a limitation in food, water, clean air, or simply some catastrophe like a flood or blizzard or whatever. Then it might decrease the population. Then it'll start going into exponential growth again. It may get knocked down by a bad summer. Then, it may go into exponential growth and so on. So what you end up with is, well, an erratic pattern, rather than what we see with the logistic pattern I talked about earlier where a population stabilizes around some carrying capacity.

In an ideal environment, one that has no factors limiting growth, populations grow at a geometric rate, or exponential rate, that increases in a steady manner. In fact, even in the absence of fluctuating external factors, populations rarely grow smoothly up to the carrying capacity and uh then, and then remain there. Instead, the norm is to see fluctuations in population numbers. In a few species, such as the arctic foxes, snowshoe hares, lynx, and lemmings, populations show regular cycles of increase and decrease spanning a number of years. There is still great debate by population ecologists over the, uh, the causes of these fluctuations, and it seems that no one cause may provide an explanation for every species. Uh, most major hypotheses link regular fluctuations in population size to factors that are dependent on the density of the population, such as the availability of food. These fluctuations may possibly be due to fluctuating external factors that we don't know about such as, cyclical climate, ah, cyclical climactic changes like El Niño or La Niña but often, the source of fluctuation in the population of species is logically explainable. Um, researchers have developed simple models of population growth, taking into account some of the more basic mechanisms governing population growth and writing them down as mathematical equations. These equations describe so-called dynamic systems, and even the simplest

dynamic models exhibit highly fluctuating behaviors that look chaotic. Populations rarely settle around an equilibrium value but rather fluctuate chaotically around them following complex cycles.

Some populations experience unpredictable eruptions in numbers. They can temporarily increase by ten or 100 times over a few years, and then follow a similarly rapid crash. An example of this would be migratory grasshoppers found in the arid parts of Africa that can multiply to such a level that they blacken the sky overhead. Here again, the causes behind population eruptions are not fully understood, and there's, there's most likely no one explanation that applies to all species.

Okay, now, let's look at regulation over these longer cycles. The fluctuations in populations are within bounds, and they form regular cycles that are oscillations over time. They may exhibit peaks and lows every ten years. Who's heard jokes or seen pictures about lemmings jumping over cliffs? Because lemmings would fall off cliffs in tremendous numbers, their behavior was called "suicide marches" to the sea. Lemmings do exhibit a real population cycle, uh, where they have a peak about every three or four years. What are the causes of these fluctuations? Is it some density dependence within this population, or maybe density-dependent factors outside this population like predators or food? So this has become the big question here: uh, what factors actually cause these population cycles?

The, the population peaks tend to occur about every three years, and the population increase is just phenomenal. Researchers in Norway have looked into this. During these peaks, there'd be so many lemmings that the ground would just be covered, swarming with lemmings. And then, then they would reach the edges of the fjords in Norway, at the edge of the ocean, and they would just jump in. The lemmings are so famous that cartoons about them even abound. It, it was found that every few years these lemmings migrate down from the lowland in immense numbers to the edge of the ocean. Then they march, mainly at night, and may cover more than a hundred miles of country before reaching the sea, into which they plunge, unhesitatingly, and continue to swim on until they die. After that they float so that their dead bodies form drifts on the seashore. Hmm. So this is the sort of pattern that grabs your attention, right? And we really want to try to explain what is going on here. While these so-called marches to the sea are very dramatic, what's actually happening is just a matter of dispersal. When the population gets very high, the animals are trying to leave and find, find better areas with more food. So this phenomenon is simply a natural dispersal. And it turns out, this particular population happens to disperse toward the edges of cliffs and the ocean and they get pushed over. They're obviously not committing suicide or deliberately marching to the sea. The population

decreases for lemmings are equally dramatic. When they are in a low, you can search and search and hardly find a lemming. But the fact is, drowning in the sea is not what's causing the cycles. Ecologists speculate that in fact it's simply a case of either some cycles in the weather or a predator-prey factor.

A, a 15-year study of the population of lemmings in northeast Greenland has recently reported that the population of the short-tail weasel, the principal predator of the lemming, also shows a four-year cycle with a one-year lag behind the lemming population. Now wouldn't you think that because of this lag, the lemming population might exceed the weasel population until the lemmings reached the carrying capacity of their environment? But, this doesn't happen because as the lemming population grows, other predators—for example, uh, foxes and owls—shift their diet in favor of lemmings because they are so abundant in the environment. Then, as the lemming population begins to decline, these more flexible predators return to their former food sources, and the more fussy weasels decline in numbers as their sole food source, the lemmings, declines as well.

[Pronunciation, page 47. See Key page 6. CD 1, Track 7]

#### Persuasive Presentation [CD 1, Track 8]

**Listen to Jake give a persuasive talk on the benefits of riding a bicycle.**

Bicycles. They're cheap, they're easy to operate, good for your health and, of course, one of the most important things now-a-days—they don't need gasoline. What I am trying to say is that in this day and age, there are alternatives to driving. So get out there and bike!

Here are some ways that I think I will convince you to ride your bike more. Did you know that regular cyclists can sometimes experience life as if they were ten years younger? If you ride a bike, you can burn up to 500 calories in one hour of biking. Here's another compelling reason to get out your bicycle. If one-third of people's journeys were made on bicycles, the national rate of heart disease in the United States would drop by five to ten percent. Five to ten percent may not seem like a lot, but in America, that's around 21 million people, which is a considerable difference.

Safety is also very important. Cars kill and maim thousands of people every year; simply put, bikes don't, unless of course you forget to wear a helmet. Just remember, if you are biking, it's smart to wear a helmet whether you're riding in a city, over long distances, or on a trail.

How many of you feel short of cash some days? I mean, money doesn't grow on trees. That's another reason why it's smart to ride a bike. Having a car can cost up to \$4,000 a year, whereas bikes rarely cost more than \$200 dollars at most . . . that's for regular maintenance, licensing fees, repairs, and equipment.

And don't forget, there's no insurance to pay. In a good year, it may cost you nothing to ride your bike.

The effects of global warming are serious and will have drastic consequences if we don't act fast. Do you sometimes sit back and ask: "Well, what can I do to help?" A short four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air!

So it's good for your wallet, good for the environment, and good for you! There are also conveniences you may not have considered. Bikes can be parked almost anywhere, so that means no tickets, and there's no speed limit. And bikes are usually two times faster during rush hour in a large, congested city like New York or Chicago.

My intention isn't to convince you to ride your bike for the rest of your life. I just want to you take what I've shared with you into consideration. If even half of you dust that bicycle off and get on the road a few times a week, it will make a difference. You'll help yourself, your bank account, and most of all, the environment. So what are you waiting for? Get out that bike!

## Unit 3

### Lecture, Part 1: What Makes Us Happy? [CD 1, Track 9]

Up to this point in the class we have talked about many of the disorders we concern ourselves with in the field of psychology: obsessions, anxiety, paranoia, depression, delusions, and neuroses. And in the history of our field, we've basically preoccupied ourselves with these psychological ailments. After all, isn't that our job, to bring people out of these states? Sure, that's true enough, but what about looking at what makes us truly happy? What is behind happiness? This is a question that is being explored more and more in the research. One such study looked at the ways in which optimism lowers feelings of depression and mental illness and leads to good physical health and longer life.

Here are some of things people often assume are causes of happiness: wealth, a good education, youth, and a good climate. Let's look at each of these. Think about the people you know. Research has shown that once our basic needs are met, more income does nothing to increase happiness or satisfaction. The problem with our culture is that we are constantly bombarded with messages that **bigger** and **newer** are **better**, when in fact we know that more stuff and more money won't make us happier. Is it in our nature as humans to have the most we can possibly have? Perhaps, but each culture has its definition of what those aspirations might be. Furthermore, those aspirations will vary among people in a particular culture. Someone living in rural Bolivia certainly doesn't have the same aspirations as someone living in Manhattan, right?

What about a good education? Should mom and dad put away the check-book or should you stay in college? In a survey from the Pew Research Center, it was found that college graduates are happier than people who don't have a degree. So mom and dad aren't wasting their money on you! On the other hand, **smarter** isn't necessarily better. Studies have shown that having a high IQ is not attributed to greater happiness.

Youth. Aren't people spending millions to become young again? There have even been TV shows where people are completely made over—their **bodies**, their **faces**, their **clothes**. A number of studies, including the Pew Center Survey, found that until we reach a very old age when our health may be failing or we have had to move into a nursing home, older people are happier than younger people. According to their survey, men 65 and older are the happiest age group, whereas men between 18 and 29 are least happy. Hmmm. What do you think? Is grandpa happier than you guys out there in class? The Centers for Disease Control and Prevention found that those from 20 to 24 years old are sad for an average of 3 to 4 days a month, as opposed to just 2 to 3 days for people between the ages of 65 and 74.

What about climate? Are people living in the sunbelt the happiest? We do know that people suffer when there is a lack of light. There are higher rates of depression in many northern countries where there is very little sunlight all winter long. And those living here in the United States probably know people living in parts of the country with very long winters and short days who suffer from SAD, or seasonal affective disorder. People buy special lights for their home that simulate natural sunlight. But overall, does a good climate equate with happiness? Well, think about retirees who leave home, family, and friends to move to sunny Arizona thinking they will have happiness until the end of their days. If they didn't go there happy in the first place, they'll take their problems from **home** to **Arizona**. In fact, many retirement communities don't offer **stimulating** and **intellectual** pursuits. And remember the research we talked about earlier regarding keeping the mind active and senility?

University of Illinois psychologist Edward Diener has spent more than two decades doing research on what makes us happy. He's found that from the most **traditional** to the most **modern** cultures, what has the **greatest** impact on happiness is close family relationships or other close human relationships. Diener and his collaborator, Seligman, conducted a study of college students in 2002 and found that among the 10 percent of students with the lowest rates of depression and highest levels of happiness, they all had very strong ties with friends and family and were committed to spending time with them. This isn't very surprising. When we look at depression, we know that rates of depression are higher among those feeling alienated from their families and friends.

How do we measure all of this? There is a lot of controversy in our field about the validity of different tools. Also, we all have good days and bad days, so are we capturing people at a **particular moment** that does not necessarily reflect their overall state of well-being?

I'll describe three tools that are currently being used, the first developed by Diener. It is called the Satisfaction with Life Scale. It's a very basic questionnaire that consists of just five questions. Diener has found that the results consistently coincide with impressions from friends and family and with the rates of depression of those completing the survey. One Czech psychologist developed a very complex method using computers and hand-held beepers. Subjects are contacted at random moments while taking part in daily activities. A screen appears with questions such as: *What are you doing? Are you alone or with others?* and *How much are you enjoying the activity?* They call this "experience sampling." It is much more intrusive and costly than Diener's simple survey. It does give interesting insights at the moment, which can be more revealing than more general questions about our state of mind.

Nobel Prize-winning psychologist Daniel Kahneman of Princeton University recently led a team in the development of a new and very promising tool. It's called the Day-Reconstruction Method. Here's how it works. A participant writes a long diary entry and completes a questionnaire describing in exact detail everything he or she did the day before. For each activity, he or she indicates who the individual was with and how he or she felt at the time using a range of feelings—for example, impatient, worried, happy, etc. The researchers tested this method with a group of 900 women with the following results. But let's wait. Think about it for a minute. What daily activities do you suppose they found the most satisfying?

*Student 1:* Kids?

*Student 2:* Work?

*Student 3:* Sex? (Laughter in class)

Here are the results from highest and on down: sex, socializing, relaxing, praying or meditating, and eating. A little farther down the list were exercising and watching TV. You had to go **way down** the list to find "taking care of my children." Many other surveys indicate that people cite children as their **greatest source** of pleasure. I remember when I went to my ten-year high school reunion, how many people pulled out those photo albums and how many said how having kids is the best thing that has ever happened to them. But it's interesting to see that when it comes right down to it, in the day-to-day routine, the Day-Reconstruction Method may reveal what we really feel.

### Pronunciation: Emphatic Stress in Speech [CD 1, Track 10]

1. The problem with our culture is that we are constantly bombarded with messages that **bigger** and **newer** are **better**, when in fact we know that more stuff and more money won't make us happier.
2. In a survey from the Pew Research Center, it was found that college graduates **are** happier than people who don't have a degree. So mom and dad aren't wasting their money on you! On the other hand, **smarter** isn't necessarily better. Studies have shown that having a high IQ is not attributed to greater happiness.
3. Youth. Aren't people spending millions to become young again? There have even been TV shows where people are completely made over—their **bodies**, their **faces**, their **clothes**.
4. If they didn't go there happy in the first place, they'll take their problems from **home** to **Arizona**.
5. In fact, many retirement communities don't exactly offer very **stimulating** and **intellectual** pursuits.
6. He's found that from the most **traditional** to the most **modern** cultures, what has the **greatest** impact on happiness is close family relationships or other close human relationships.
7. Also, we all have good days and bad days, so are we capturing people at a **particular moment** that does not necessarily reflect their overall state of well-being?
8. You had go **way down** the list to find "taking care of my children." Many other surveys indicate that people cite children as their **greatest source** of pleasure.

### Lecture Part 2: The Mind-Body Connection [CD 1, Track 11]

When you go for a physical, does your doctor sometimes ask you if you've experienced any stress in your life? We know more and more that there are connections between our mental state and our physical state. We know that even the happiest of people can experience disruptions that strongly affect their emotional health and then affect their physical well-being. Let's first look at some major life changes or events that are known to affect our emotional state, often leading to sadness, stress, or anxiety. Who can think of a life event that affects our emotions? Maybe something you or a family member has experienced?

*Student 1:* A death in the family?

*Teacher:* Definitely. What else?

*Student 1:* Um, an accident?

Yes. Here are some examples: Getting divorced, being laid off from your job, as you said, dealing with the death of a loved one, becoming an “empty nester,” and money problems. Now surprisingly, there are others on the list such as getting married, having a baby, getting a promotion, moving into a new house. Don’t those last ones sound like positive events, things that should lead to happiness? The fact is, any major life change can disrupt our emotional compass, so to speak. We’re heading in a straight line, everything’s good, and then suddenly, we’re driven off track. So how do the emotions you may experience from these changes affect your health? Of course not everyone experiences adverse effects. But some can, and that’s when people would often say, “It’s just in your head” or, “What a hypochondriac!” We now know that there is a true mind-body connection. So, physical symptoms can be a way for our body to tell us that something isn’t quite right. Someone might experience high blood pressure after a death in the family. Emotional stress can lead to any number of symptoms, including headaches, fatigue, chest or back pain, insomnia, heart palpitations, shortness of breath. Stress and anxiety can actually weaken your immune system, making you more susceptible to colds or other infections.

One study showed that optimism in older men results in lower rates of coronary heart disease. Other studies have shown that a pessimistic personality leads to higher mortality rates. Not only can negative mental states lead to physical ailments, but positive outlooks can lead to healing and resistance to illness.

Historically, studies of the mind and body have been approached as two distinct fields of study. The study of the mind and emotions didn’t sit right with scientists looking for the quantifiable and observable. They left the study of the mind to those interested in more spiritual matters. Some neurobiologists acknowledge that what our grandmothers knew all along—that’s to say, our minds and our bodies are connected. And that is now being supported with actual scientific data. This area of research could have profound implications for the treatment of many serious diseases. The thinking is, if we can enhance a patient’s immune function by behavioral means, we may be able to lower the dosage of drugs for treatment of diseases such as AIDS, Parkinson’s, cancer, or multiple sclerosis.

As the mind-body connection has received recognition as a serious area of research with data gathered through rigorous research methodologies, doctors have taken it more seriously. One of the major outcomes of this kind of study is the whole notion of patient-centered health care. Doctors are recognizing that they cannot just treat the disease; they have to treat the whole person, mind and body.

One way to determine if there really is a mind-body connection is to test the placebo effect on patients. Who knows what the placebo effect is?

*Student 1:* Um, it's when someone thinks that they had a treatment or a medicine and feels better even if they didn't receive the treatment.

Right. One researcher in Denver conducted a study with Parkinson's patients to see the effectiveness of transplanting human embryonic dopamine neurons into the brains of advanced Parkinson's patients. It was a double-blind study. In a double-blind study, there's a group that receives the actual treatment and a control group that doesn't. Neither the subjects in the study nor the evaluator knows who received the actual treatment. So in this study with 40 Parkinson's patients, half received the transplant and the other 20 were randomly assigned to receive a sham surgery.

In the quality-of-life evaluation after 12 months, the placebo effect was strong. There were patients who thought they had received a transplant of human neurons into their brains—but who really hadn't—and still reported an improved quality of life one year later. What's even more striking is that objective ratings of the patients' neurological functioning by medical personnel—and these were folks from another institution—showed a similar effect. The evaluators reported more differences and changes at 12 months based on patients' perceived treatment than on the actual treatment they had received. In other words, their perceptions had a significant effect on their physical well-being.

Now it should be noted that even though these patients' perceptions influenced their test scores after 12 months, the patients who had the actual transplant surgery did show improvement in movement while the patients who had sham surgery did not, on average. So this would indicate the effectiveness of the surgery, but for purposes of our discussion of the mind-body connection, it seems that mental perceptions do have appreciable effects. One of the patients reported that she had started hiking and skating after many years of inactivity. It turns out that when the double blind was lifted, she had received the sham surgery. So do we balk at her improved physical condition—was it just that she was more mentally motivated, or was there actual physical improvement? These are interesting questions.

## Unit 4

### Lecture, Part 1: Tsunamis: Causes and Effects [CD 2, Track 1]

In the last lecture, when we looked at the processes underlying volcanic eruptions, I, I mentioned tsunamis because volcanic eruptions can be one of the causes of a tsunami. Today we'll look specifically at, at, what a tsunami is and what the causes are. I suppose that until 2004 when that horrible tsunami hit in the Indian Ocean, they weren't really on your radar screen, were they?

Japan had tsunamis on its radar and has experienced the devastating effects of tsunamis on a number of occasions. When more than 225,000 people in 11 countries die from a natural disaster, well, it gets everyone's attention. It also brought to the surface many of the other issues of natural disasters and their impact in developing countries—in particular, the issue of disaster early-warning infrastructures that are lacking in these countries. We may actually touch on that last bit today.

Have you ever wondered what the word *tsunami* means? It's a, it's the Japanese word for "harbor wave." When tsunamis were sometimes referred to as *tidal waves* by the general public in the past, this is a misnomer. While it's true that the impact of a tsunami on a coastline is dependent on the tidal level at the time a tsunami strikes, tsunamis are actually unrelated to the tides. The, the scientific community often used the term *seismic sea wave*, but this is also misleading as it suggests that there is always an earthquake-related generation mechanism. The, uh, the fact is that a tsunami can also be caused by a nonseismic event, maybe a landslide, sudden failure of a dam or a dike, or impact from a meteorite.

So what are tsunamis? Well, basically, they are huge ocean waves, as high as 30 feet. Now unlike wind-generated waves, they are caused by some sudden motion or disturbance on the ocean floor. Uh, it could be caused by an underwater landslide, volcanic eruption, or an earthquake. Earthquakes are the most common cause of tsunamis. What's happening is that an earthquake is generated. We've talked about the same principles on land. An earthquake with a magnitude of between 9.1 and 9.3 was the cause of the tsunami in 2004, with its epicenter in Sumatra, Indonesia. In fluid mechanics, tsunamis are described as solitary waves, as opposed to, uh, regular waves generated by wind or the dropping of a heavy object in water. A solitary wave is an enormous single wave that stays intact as it travels, as opposed to the regular waves you see crashing on the shore when you're at the beach. As such, solitary waves pack an enormous amount of energy into a single devastating wave. Because of its wave properties, a tsunami can easily travel at more than 700 kilometers an hour. They can propagate at extremely high speeds and travel transoceanic distances with limited loss of energy. And this explains the extent of devastation in the 2004 Sumatran tsunami.

So, most of the time, tsunamis are caused by earthquakes that are generated in a subduction zone—that's an area where an oceanic plate is being forced down into the mantle by plate tectonic forces—as you can see here in Figure A, the mantle is just below the crust of the earth. As you can imagine, there is enormous friction generated between what we call the subducting plate, the one that slides under, and the overriding plate, the one that remains on the top. This friction prevents the two plates from moving at a slow and

steady rate. Uh, instead, the two plates become stuck, or blocked, which is also shown here in Figure A.

As this blocked plate descends into the mantle, there's a slow distortion of the overriding plate. See here, in Figure B, how the surface of the ocean floor pushes up? See this bump? The result is an accumulation of energy. We call this accumulated seismic energy. Think of it as the energy stored in a compressed spring. This energy can accumulate in the overriding plate over a long period of time—sometimes decades or even centuries.

When energy accumulated in the overriding plate is, is greater than the force that has been holding these two plates together, the overriding plate snaps back into an unrestrained position. This sudden motion gives an enormous shove to the overlying water and is the cause of the tsunami, as shown here in Figure C. The wave created by this force begins to travel out from the epicenter of the earthquake, as shown in Figure D. Water travels out across the ocean as well as landward, flooding the shoreline. The distances these waves can travel is really mind-boggling. Again, this is because tsunamis are solitary waves that—as opposed to regular waves—don't break and therefore hold their energy over a very long distance. Take, for example, the 1960 Chilean tsunami. It actually traveled as far as Onagawa, Japan. And so you think a tsunami is a huge single wave? Actually, uh, they are, what we call “wave trains,” a sequence of multiple waves. Look at this tidal gauge record starting at the time of the, the earthquake in Chile. You can see on this graph in Figure E, the normal rise and fall of the ocean surface, uh, caused by tides, at the beginning, but then see how the shoreline in Japan was hit repeatedly by large waves. This is just like what happened in the 2004 tsunami. It originated in Indonesia, but caused extensive damage to fishing villages on the Somali coast at the other end of the Indian Ocean.

When a wave approaches the shoreline, it builds in height. The topography of the coastline and the ocean floor will influence the size of the wave since the height of the wave is dependent on the depth of the sea floor. As we have said, there will normally be more than one wave and the succeeding one may be larger than the one before. So, this means that there could be a very small tsunami at one beach and a giant wave a just a few miles away.

### **Lecture, Part 2: Minimizing the Devastation [CD 2, Track 2]**

Did you know that before the tsunami hit the coast of Sri Lanka, many children ran to the shore out of fascination for the receding waters, and, and many adults came to gather the fish lying on the normally unexposed beach? Um, had these people been warned of the impending strike, thousands of lives would have been saved. This means both education and technology: education—meaning teaching people in high-risk areas what to look for prior to a tsunami. So what are those? Interestingly enough, one of these is actually the behavior of animals. It seems

that many animals sense the oncoming danger and flee to higher ground before a tsunami wave hits shore. It was noted in Sri Lanka in the 2004 Indian Ocean earthquake. How do the animals sense this? I don't know if we can ever determine this, but there are those scientists who speculate that animals may have an ability to sense subsonic waves from an earthquake minutes or hours before a tsunami strikes shore. Others feel that, that the most likely explanation for Sri Lanka was that certain large animals, for example, elephants, could hear the sounds of the tsunami as it approached the coast. While the human reaction was to run in the direction of the shore to see what was happening, the animals retreated inland. Educating local populations of the significance of this retreat of large animals may be a simple way to save lives in the future.

It is often the case that, uh, that the part of a tsunami to reach land first is a *trough*, or a complete absence of water at the shoreline. In other words, the shoreline is completely exposed. These exposed areas are normally never exposed, which should serve as an advanced warning sign to local inhabitants. Again education is the key here. Unfortunately, this trough often precedes the wave by only seconds or minutes. Even so, had residents along the shoreline had this knowledge, many may have retreated rather than approach the shoreline, which means that some lives could have been saved.

Oh, one last obvious indicator is that earthquakes are often the cause of tsunamis. Therefore, an earthquake felt near a body of water should provide a strong indication that a tsunami could follow very soon. While developing advanced warning systems for tsunamis has long been a priority of scientists, the 2004 disaster heightened this exploration and the discussion became more public.

So education could go a long way. Now, let's turn to the ways technology can help. A first step for developing a warning system is to identify and map areas of risk. This happens in a variety of ways. First, geologists need to pinpoint the tectonic faults of concern in an area. They also need to map the seafloor topography, as this has an impact on wave propagation. With this knowledge, as well as by studying the effects of past tsunamis, computer models can be developed showing how future tsunamis might behave.

Much of this work was done before the 2004 disaster, and there are a variety of warning systems in place, but they are far from perfect. For example, the seismic data that is gathered can tell us quickly where the epicenter of an undersea earthquake is, but they, they cannot pinpoint the alignment of the rupture that is causing the earthquake. What does this mean? Well, in the case of the Sumatran rupture, if experts had known that it was along a north-south portion of the fault, they could have predicted that the tsunami would have traveled mainly east-west. So they would have been able to predict more accurately which areas lay in the path of the tsunami.

Another way in which technology can help is through tsunami early-warning systems. These involve awareness, organization, and technology for collecting sea surface movement information from a multitude of buoys distributed throughout the ocean. These buoys register the passage, the strength, and the direction of a traveling tsunami, and um, they, they process this information so that all the governments and organizations bordering the danger zone can alert the affected populations.

Now, when we hear about the report of on-land earthquakes, we seem to get an immed- immediate report of the magnitude of the quake, right? Well, in fact, it seems that in the case of tsunamis, it has been taking as much as two hours between the time the determination is made and, and the point at which those tracking tsunamis are notified. Improvements in communication between these various agencies can and must be made. One expert tells us that every underwater earthquake of a magnitude 9 or more has resulted in a devastating tsunami. The Sumatran earthquake is believed to have been magnitude of um, 9.3. We need to figure out a way to determine those magnitudes far more quickly. I mean, if the media had known, say oh, 15 minutes after the quake, that there was an impending tsunami, surely some people in its wake would have been alerted.

There have been several strong earthquakes in the same region since the big tsunami in 2004. These earthquakes have put the tsunami early-warning system to test. Fortunately, no tsunamis were created by these tremors.

## Unit 5

### Lecture, Part 1: A Course in Intercultural Communication [CD 2, Track 3]

Intercultural communication is an exciting and challenging experience because of the dynamism of communication in the world and in the United States, a multi-cultural country that still exhibits cultural commonalities among a lot of people. Now, this is a subject that can stir emotions. Through this class, we can all deepen our awareness, understanding, and acceptance of ourselves as cultural beings. In this class, we will deal with issues such as class, power dynamics, written and unwritten histories, and the impact of religion in intercultural settings.

We will make use of frameworks and theories from the social sciences, interpretative, ethnographic, critical, perceptual, and communication approaches to intercultural communication. Now, each of these approaches has its roots in different disciplines such as psychology, anthropology, sociology, sociolinguistics, and communication, making intercultural communication a very interdisciplinary field of study. Each framework influences research goals, assumptions about reality, assumptions about human behavior, methods of study, and perceptions of the relationship between culture and communication. Now, you will not have to learn the specific disciplines, but it is helpful if you know that the theories come

from a variety of disciplines. Likewise, all of you come from a variety of backgrounds and majors, and these theories can be useful to you no matter what your major and what your work.

Intercultural communication can be exciting and scary, as well as frustrating and enlightening. There is no one “right” way to experience intercultural interaction. Now, don’t be overwhelmed by the apparent complexity of intercultural communication; instead, accept this as part of the intercultural communication experience.

Now, as you know, while I teach here in Minnesota every summer, I also live and work in Sweden a good part of the year, so I consider myself to be part of two cultures. I can remember having a frustrating conversation with an older American at just the time my daughter and I were applying for Swedish citizenship. He asked me what I thought about allowing so many foreigners into the United States. I replied rather flippantly that I thought the borders should be open. He was retired at the time. He hadn’t worked in quite a while. Yet he complained about all the jobs that *they* were taking from *us*. I asked him how he came to be born in the United States, and he said his father had immigrated in order to find better opportunity for his family. I tried to reason with a man in his 70s that when *they* come today, *they* are perhaps looking for the same. It was a pointless argument because neither of us convinced the other or even understood the other. Yet this same conversation goes on in many countries today, including the United States and in Sweden. Could I have somehow better tapped into his perspective without watering down my own? In other words, how could I have communicated more effectively? What theories presented last week could be used to explain what was happening in this conversation on various levels? Situations such as this will become clearer as we discuss both practice and theory in this class.

The key to the study of intercultural communication is an understanding of culture. Culture includes everything we believe and do, everything we create around us, and even the impact of existing environments. It includes how we act, how we dress, what we eat, what kinds of groups we interact with, whether we tend to be more individualistic or more group-oriented, whether we have a short-term or long-term orientation, and how we handle conflict. Culture includes religion, even if we consider ourselves to not be religious. Religion can’t really be separated from culture. Even religiously non-observant people are impacted by beliefs that make up a culture’s religion. For example, the norms for eye contact and touching between genders may have roots in religious practices.

When the man talked about shutting the borders to the United States, what’s prompting this sentiment? Until recently, say until 25 years ago, the Midwest was very homogeneous, made up primarily of immigrants of northern European descent. What is considered “American” culture to many who haven’t ventured

outside the Midwest may look very different to what somebody who grew up in New York City might think of as American culture. Now a city like St. Paul has more than 75 first languages spoken in its homes. There are immigrants and refugees from Somalia, Myanmar, Laos, the Sudan, and Ethiopia, just to name a few. Is this scenario any different from what happened in the 1800 to 1900s in the Midwest? That's a good question. As I told the man, our ancestors came from somewhere else, and we spoke many different languages in our homes, English, German, Czech. What's most likely happening is the cultural practices, norms, and fundamental beliefs are far more disparate among those arriving in a place like the Midwest today than they were at the turn of the last century. And what's jolting the man is culture. So now that we have a far more diverse mix of cultures, whose cultural practices are the norm? Is there a norm? More important, should there even be a norm?

### **Lecture Part 2: Elements of Culture [CD 2, Track 4]**

When it comes to cultural traits or norms, we often see more in-group variation than we do between groups; nevertheless, we can find certain commonalities in people who belong to a culture group. For example, do you operate in an individualist mode or collectivist? Chances are, you would find more people from the United States falling into the individualist mode. What about your orientation to time? Swedish time means that one is always punctual—now, I am not—and that people rarely do anything spontaneously, although I see a difference in my daughter's friends and with in people my age. In Sweden, which isn't always the case in every family, people usually call ahead before they visit. One would never call a friend and ask to meet for coffee or supper in 30 minutes. In my family, although I hate to admit it, everyone comes late. The standing joke—often a reality—is that it must be booked and put into one's calendar at least three weeks ahead, and I've heard that it's even longer in Finland. The only friends I have who ever phone or ring my doorbell and ask me to go out to supper at the last moment are Chinese, Dutch, and Greek. Even funerals are scheduled anywhere from three to six weeks after the death. On the other hand, if an Israeli invites you to drop by, she or he means it (although it might be a good idea to give a phone call first).

At the beginning of class, I asked you to make a list of what you think culture is. Now, did you list language or communication? Much of language is tied to cultural beliefs and practices, for this is how we convey what and how we think about the world and our place in it. We will come back to this later in the course. Oral communication includes more than just the words we say. It includes loudness or softness, body language, and how close or far away we stand. In this sense, even silence can be a part of language.

In semiotic theory, a sign is anything that stands for something else. Language is the ultimate semiotic system. It is abstract and arbitrary, and it is rule-governed. How can it be both? Well, it's abstract because there is seldom any relation between a word we say and what we mean by it. A tree can be an *arbor* or a *baum*; in that sense, it doesn't matter what we call it. The words are abstract and arbitrary. But over time, languages develop patterns, and the patterns become rules for how we speak. So in that sense, language is rule-governed.

Even writing is arbitrary. There is no rationale for why the letter *h* is written as it is. In fact, in the Cherokee writing system, a letter that looks very much like *h* is pronounced "ni." Greeks and Russians use different symbols than English and French and German and Swedish do. The Chinese use symbols to represent words rather than letters.

I suspect that once we learn a word, we can no longer hear the word without having a picture in our mind. And I suspect that once we learn in our native or first language that a growing object with a thick woody stem and branches with leaves or needles is called a *tree*, we can no longer see the object without thinking the word. The concept cannot be separated from the actual thing.

But much more is conveyed by words than pictures in our minds. Much that is conveyed is related to culture. So if you know another language well, can you think of words that cannot be easily translated into English? Or vice versa? The word *amae* in Japanese is one of these. Whole articles and books have been written describing what this means to the Japanese; it is very much tied to the Japanese concept of mother-child bonding and dependency that develops into a group orientation in learning and working styles and friendships and is characteristic of Japanese culture.

Whatever type of society we are from and are used to operating in, we follow rituals, which are a type of rule. Conversation analysts have observed this over and over. Even in what we might consider a very unstructured and casual conversation, we tend to follow rules. Do people talk at the same time, or is it considered rude? Some people expect this and feel the other people are distant and cold if there isn't a great deal of interaction (perhaps *mm-hm* or *yes* or *right* as we're talking). We are often not aware of this until we're in a strange situation and think the other people are either very rude or very uncommunicative. Some people feel it is rude for someone else to use even this type of minimal response while they are talking. These are related to culture. What is your cultural style? There are also rituals in how people tell stories in conversations and how they change topics.

I sometimes think of the language-culture connection as similar to food. Yes, I like to eat! Maybe you associate certain smells and tastes as being related to visiting your grandmother. If you get a whiff of something that smells like what she

cooked, you're transported back to her home no matter how old you are, and a whole range of feelings is associated with this. This is how different languages can function: I speak three languages fluently, and I often experience certain feelings when I hear one or the other. These are related to the cultures that the languages are a part of. Now, I am sure that some of you experience this as well. Truly bilingual people change their body language and facial expressions when they change languages. If you were to see a videotape of such a person with the sound off, you could still tell which language he or she was speaking. So, as our textbook points out, when we communicate, we must have cultural understanding as well as linguistic ability in order to communicate well.

## Unit 6

### Lecture, Part 1: The Birth of Microfinancing (CD 2, Track 5)

In 2007, Professor Muhammad Yunus, the founder of Grameen Bank and its managing director, was awarded the prestigious Nobel Peace Prize. What is the connection between his work in microcredit and world peace? Today we'll be looking at the ways in which providing credit to the very poorest individuals can fight poverty and, in turn, provide more security for a country. We'll see that microcredit, or microfinancing, can be a powerful weapon against poverty and can serve as a catalyst to socioeconomic well-being for millions in developing countries.

Professor Yunus' work began in his home country of Bangladesh in 1976. That's when he started the Grameen Bank Project. *Grameen* means "village" or "rural" in the Bangla language. He witnessed terrible exploitation of the rural poor by money lenders, which he hoped this project might eliminate. He also had a vision for providing employment for the millions of unemployed in rural Bangladesh. As in most countries around the world, the poorest of the poor were kept out of the banking systems and had no way to obtain loans. After all, how could the poor be reliable borrowers who could repay loans? They had no credit history, no assets, no property, no collateral. Central to Professor Yunus' work is his belief that the poor are "credit-worthy." Following a number of successful pilot projects in the late 1970s, the Grameen Bank Project was designated as an independent bank by government legislation in 1983. Today the vast majority of Grameen Bank shares are owned by those it serves, that's to say the rural poor, and 10 percent is owned by the government of Bangladesh. Bangladesh is a country where an estimated 45 percent live below the poverty line, so this work is as important today as it was when the Grameen bank started more than 30 years ago.

In today's class we'll look at what has made the Grameen Bank model of microfinancing successful. We'll see how it has spread to other developing coun-

tries, affording millions the opportunity to come out of poverty. We'll also look at why women receive far more loans than men. What makes women prime candidates, do you suppose? We'll take a look at that today.

As the term suggests, *microcredit* means small loans to support small projects—for example, garment making, pottery, or local transportation services. Consider the condition of the rural poor in a country like Bangladesh, Professor Yunus' country. With no means for formal education or financial means to start a cottage industry, buy livestock, or whatever might sustain a family, what's to bring rural poor out of poverty? So the premise behind microfinancing is that if people are given the chance to realize small economic pursuits by receiving loans with reasonable conditions and terms, little by little, they can rise out of poverty. Key to the success of microfinancing is accountability and trust. With no collateral as with traditional loans, how can a bank have some guarantee of repayment?

Wouldn't it seem logical that banks would not provide credit to those with no collateral? Think about conventional banking practices. What do people usually need to take out a bank loan? They need some kind of collateral or some kind of guarantee they can pay back the loan. Collateral may be property or other equity such as stocks and bonds.

Here's how the system works. Five people in a rural community volunteer to form a morally binding group. To start off with, two people in a group may apply for a loan and if they prove themselves reliable borrowers, repaying loans on schedule, two more members can be added to the group. If they fulfill their obligation, a fifth borrower is added to the group. In the Grameen Bank system, there is no joint liability. That means that other group members aren't liable if someone in the group defaults on the loan. Now in some other microfinancing schemes around the world, there is joint liability and if one doesn't repay, the others have to pay for that person. And if they don't, they won't have access to future loans. But that isn't the case for the Grameen Bank. So what's to keep people paying? Many believe it's mutual trust that is established. This what we call social collateral. This is at play when non-payment of loans would affect one's reputation in the community. This social collateral has been found to have a profound effect on borrowers' commitment to the group.

Before microcredit was introduced, money lenders would charge exorbitant interest rates, often more than 100 percent. Grameen Bank's rates can be as high as 20 percent for income-generating loans, but they also offer housing loans at eight percent, loans to students at an interest rate of five percent, and loans at zero percent for the most disadvantaged in society: the very poor, the disabled, the blind, and the mentally disabled.

Professor Yunus believed that if individuals had access to credit to initiate income-generating activities, they will motivate the others in their group to do

the same. There does need to be some kind of supervision, though, for the model to succeed. Grameen Bank workers, so called “bicycle bankers,” have authority to supervise and service the loans in rural regions. With strict criteria, these bankers select projects that seem most viable. There is considerable peer pressure to succeed and a manageable repayment plan based on 50 weekly installments.

There were always many naysayers along the way. First of all, what kinds of jobs would people find that would remunerate them enough to repay loans? Participants have proven them wrong. In fact, the average income of Grameen Bank members is from 25–50 percent higher than other community members. The number of members below the level of poverty has decreased significantly to 20 percent as compared to 56 percent of comparable non-Grameen members. It was also thought that the poor simply would not repay the loans, while in fact the repayment rates have reached 97 percent. The group thought to be the most unbankable was women but, as we’ll see, just the opposite has happened. There are more than seven million members of the Grameen bank today, 97 percent of which are women.

With the success of microfinancing in Bangladesh, the movement was expanded to other developing countries in the late 1980s and early 1990s, beginning with pilot projects in Malaysia and the Philippines. Development agencies throughout the world are using microfinancing as a tool for economic development and empowerment.

[Pronunciation, page 157. See page 157. CD 2, Track 6]

### **Lecture, Part 2: Women and Microfinancing [CD 2, Track 7]**

From the very start, women were given equal access to Grameen Bank loans. It soon became apparent that not only were they the most reliable borrowers, but they were also the most entrepreneurial. This has allowed them be far less dependent on their husbands. It has also provided women with a means to improve their living standards for themselves and for their children. Many have been able to put their children into school for the first time. This phenomenon has proven to be true throughout the developing world where microfinancing has taken hold.

During early periods throughout history, women have been recognized as the equal of men. They participated in decision-making and were heads of households. But that changed with the advent of commercial production. Division of labor by gender emerged with men working outside the home and women inside. This meant paid work for men and unpaid work for women. Of course, this continues to the present day. While not as true in urban centers of countries such as India, Bangladesh, Bolivia, or Indonesia, disparity between genders in rural areas

is prevalent, including in the areas of education, literacy, health and nutrition, decision-making, and participation in politics, just to name a few. Did you know that Nehru said: “If you want to awaken a country, first awake women. If a woman is awakened, a family is awakened, and when a family is awakened, a village is awakened, thereby an entire country is awakened.”

The State of the Microcredit Summit Campaign 2001 Report indicates that 14.2 million of the world’s poorest women now have access to microfinancing. The poorest is defined by the Microcredit Summit Campaign as those people at the bottom half of those living below the poverty level in their country. These financial services are offered through specialized microfinance institutions, also called MFIs, banks, or Non-Governmental Organizations, or NGOs. According to that report, women account for nearly 74 percent of the 19.3 million people being served by microfinance institutions. Even though women have excellent repayment records, they continue to face obstacles, often due to prejudice against women as entrepreneurs.

There are enumerable factors that contribute to the economic success or failure of women receiving loans. As you can imagine, just providing the financial means to initiate and sustain a business is not enough. We have to consider status of women within a group, educational level, and other responsibilities they hold. In most cultures, women are still responsible for child rearing and the functioning of the household. Literacy levels are far lower for women than for men. And then we need to consider how the consequences of financial stability are viewed within a woman’s cultural context. Does empowerment of women mean the same thing everywhere? And is empowerment and financial stability considered desirable by those in power?

When an MFI in Bolivia introduced microfinancing, it found that clients with health problems often had problems with loan repayment. It created a microfinance plus health care model, including health education and preventative care. The MFI uses what it calls a focal point model, with centers in highly populated areas. Clients are required to stop at the focal point centers once or twice a month for loan repayment, at which time they also receive health services. In fact, health training is required of all loan recipients. By grouping financial and health services, MFIs like this one can see a reduction in the cost of service delivery and increase the scale of their projects.

Microfinancing for women exists in countries that have an overall stronger economy than some of the other countries we’ve looked at today. In Russia, for example, an innovative MFI specifically for women solicits grants from international donor agencies. Those grants are received in U.S. dollars, which are then deposited in a loan guarantee fund at a reputable bank. Then the loan guarantee funds are invested in interest-bearing accounts in U.S. dollars. The interest

income earned covers the MFI's operational expenses, which in turn can allow it to attain self-sufficiency. The loans and repayments are made in local currency.

The latest trend is microfinancing online. One such microfinancing website had, in its first year alone, 250,000 visitors, raised \$430,000 in loans in \$25-dollar increments from more than 5,400 users, and provided capital for 750 microenterprises in 12 developing countries in Africa, Asia, Eastern Europe, the Middle East, and Latin America. The website connects individual lenders to individuals in need of loans.

## Video Track 1 (1:18)

### Unit 3. Group Discussions and Holding the Floor

*Student 1:* I cannot believe that study he told us about today in class. I mean, what are they doing to those poor, poor Parkinson's patients? That is terrible and completely unethical. . . .

*Student 2:* Well, how, how are they going to make medical advances in the treatment if they don't . . .

*Student 1:* Yes, but Parkinson's patients are

*Student 2:* Wait. . . . I was trying to say . . .

*Student 1:* No, but I was the one who was talking. I'll let you make your point in a minute. What I was saying was, I think that these families and patients are really expecting treatment, and even though they know they are part of an experiment, it's probably not fair to give them some sort of sham surgery, you know? So what were you saying?

*Student 2:* Okay. It does seem harsh to withhold a treatment that might have some promise, but that's the whole point of the study, to see if this new surgery has an effect, and it turns out that the surgery is very effective . . .

*Student 3:* Yes, that's what I wanted to say. It turns out that the surgery did actually improve mobility for the group who received the surgery and as well as for the control group. . . .

*Student 4:* Can I say something here? The doctors want to see if the surgery works, right?

*Student 1:* Yeah, but I wonder if that really . . .

*Student 4:* Wait, I'm talking now.

*Student 1:* Oh sorry.

*Student 4:* Um, this is an experimental treatment so the risks are high for both the control group and the people receiving the treatment. And the

other point I want to make was that, in the end, the people who received the sham surgery felt as good as the people who received the actual treatment because of the placebo effect. So, what's the harm?

## Video Track 2 (1:53)

### Unit 4. Handling Informal Classroom Interactions

*Professor:* So, there's just one handout for the lecture today, and um, and you know the exam's on Wednesday. Are there any questions about the exam? And you know the review is tonight and so you need to look over your study questions and generate the, you know, the content of the review session tonight. There's also some sample questions on the web so check that out. And I looked over the first exam and there's some stuff that we've been talking about today on the exam and also some information that we went over earlier as well. Um, ok, so, any questions?

*Student 1:* Excuse me, is the exam going to be in this building?

*Professor:* Yeah. All the exams are in this building, and you don't need to bring any books or anything 'cause we are going to give you the books. And, no calculators. Just show your work so we can see everything on the paper.

*Student 2:* I'm sorry, did you say that today's lecture is on the exam?

*Professor:* I'm sorry, what, what was your question?

*Student 2:* Is today's lecture on the exam?

*Professor:* Good question. I'm sorry. It is not on the exam. Okay? It will include up to last Wednesday's lecture. Good question.

*Student 3:* Excuse me. If I understood you, you said there was materials to help us on the website? Is that right?

*Professor:* Yes, that's right.

*Student 3:* Thank you.

*Student 1:* Um, do you have any extra worksheets?

*Professor:* Oh, no. If you are missing worksheets or handouts, the best thing is to do is to just email me or let me know and I can try to make some more. But you could also come up to my office and look in the box outside my office. Or you could even ask somebody else. But check my box anyway. Ok, so everyone is all set for Wednesday, right?

## Video Track 3 (2:09)

### Unit 5. Finding the Speaker's Point of View

*Student 1:* I don't know. If you ask me, morals or values, they are all created. Take World War II, for example. You could murder as long as you could justify your actions.

*Student 2:* Yeah, that's an interesting point of view. Yeah.

*Student 3:* I was gonna say that I think morals or values are all the same basically across the world. I mean, it's just that they rank them differently. If you take Eastern and Western thought, on any specific issue, it's more like, Eastern thought is very group-oriented, and they're more concerned you know about respecting someone who is above you in society—like a teacher or a boss, even.

*Student 1:* Interesting

*Student 3:* And Western thought is more individualistic and they're really concerned with human rights and all that kind of stuff like that. But if you like at it at the core, they're basically the same but they rank the importance of each differently.

*Student 1:* That's an interesting way to look at it. I like that.

*Student 4:* Well, as for whether there are absolute morals, I definitely think there are. And something as extreme as killing a child, it's just more obvious and more universal than some other values might be.

*Student 1:* That's a good point.

*Student 2:* I don't agree at all. I don't think that there are universal values. I mean, if you look back even before monotheistic religion, people would sacrifice other people, even children, to God. Okay, how can I say this? As long as you can justify it, it's okay. That's been our mindset. I don't think that over time it's been universal.

*Student 1:* What do you mean, "as long as you can justify it?"

*Student 2:* Like as long as you're sacrificing for a higher meaning, it's okay.

*Student 4:* Do you mean that as long as something is culturally justified as by society as a whole that there's no problem with it? Then there's no punishment or shame in doing it? Well, maybe, but I'm not sure I can agree with you.

*Student 1:* Yeah, it might be true, but I don't know if I agree.

*Student 3:* I mean, agree or not, it's definitely part of the issue.

*Student 2:* Right.

## Video Track 4 (2:14)

### Unit 6. Listening in Groups

*Student 1:* If I understand the professor, what we're supposed to do then is some more research and basically present that research on microfinancing in five different countries around the world . . .

*Student 2:* I thought it was four . . .

*Student 1:* No, it's five. It's in the syllabus right there.

*Student 2:* Too bad it's not four, so, we could like, each get one country.

*Student 1:* Right.

*Student 3:* I don't mind checking two. I love this stuff.

*Student 2:* Okay, well if you're sure because I don't love this stuff. So it's good I only have one.

*Student 4:* Ok, well what if we figure out what everyone is going to do now.

*Student 3:* Yeah, we need to do research the movement in five countries and compare the successes there to Grameen Bank in Bangladesh, right?

*Students 2 and 4:* Yes/yeah/right.

*Student 1:* We need to gather some questions, the same ones that we went over in class and then present that information in a poster to the other students.

*Student 4:* I think it's supposed to be sort of a poster session where people come up to us and we have to explain our project to them.

*Student 2:* So how are we going to decide the countries?

*Student 3:* We got assigned Ghana, Bolivia, India, Russia, and Indonesia. Does anyone have any preference, or we just draw countries?

*Student 2:* Oh, I think that's a good idea. I can write the names of the countries on a sheet of paper. You all okay with that?

*Students 1, 3, 4:* Well. Um . . .

*Student 3:* Well, I'm taking the two, and I know I want Ghana and Indonesia.

*Student 2:* Okay.

*Student 4:* Well, I'll take Bolivia.

*Student 2:* And I'll take Russia. So, that leaves Jake with India.

*Students 1, 3:* Okay. So that's done.

*Student 4:* Um, well it's due in 2 weeks so we maybe can do our research and then meet on Saturday? That gives us four days.

*Student 2:* Okay then.

*Student 2:* Okay, if you guys have data stuff please send it to me. I like that kind of stuff. I have this computer program that makes it all work like magic. So, it's no problem.

*Students 1:* Sounds good.

*Student 4:* That'd be awesome if you were willing to do that.

*Student 2:* I'm definitely willing.

*Student 4:* Okay. So Morgan is going to make the graphs, and Sun, you've got 2 countries. Jake, what about if we do the poster?

*Student 1:* Well, sure, that's the fun part.

*Student 3:* I think this is good. We all gotta do the research and we all have different tasks. This is the easiest group I've worked with this year.

*Students 1, 2, 4:* That's good.

*Student 2:* Oh, so when are we going to meet again? Is the Union, lower-level café 2:00 good for you guys?

*Students 1, 3, 4:* Yep. Works for me.

*Student 2:* Okay, then I guess we'll see each other then.