

## Unit 01 Martin Luther King, Jr.

### MEMORIAL TO MARTIN LUTHER KING, JR. IN WASHINGTON, DC Track 01

After twenty years of planning, a **memorial** honoring **slain** civil rights leader Martin Luther King, Jr., is nearing completion in Washington. The memorial will feature a large statue of King, a wall of quotations from his writings and speeches, and a bookstore.

American civil rights leader Martin Luther King, Jr., helped to change the course of US history. Now a memorial on the National Mall in Washington will honor him for his contributions to his country. Its dedication is August 28, 2011, the same day as in 1963 when he delivered his famous “I Have a Dream” speech.

“I think we are overjoyed here at the Memorial Foundation,” said Harry Johnson, president of the Martin Luther King Memorial Foundation. “Knowing, understanding, and believing that this is going to **come to fruition**. And that we are soon going to have a Martin Luther King Memorial here on our nation’s mall.”

Martin Luther King was in the forefront of the American Civil Rights Movement in the 1960s. He led marches and protests throughout the segregated south, preached non-violence in the face of violence, and went to jail several times for his actions.

King’s efforts helped to lead to the Civil Rights Act of 1964. The law forbids discrimination based on sex, race, religion, or national origin.

An assassin shot and killed King in Memphis, Tennessee, on April 4, 1968.

The memorial will occupy a one-and-a-half-hectare site not far from the Washington Monument and memorials to Jefferson and Lincoln.

The focal point of the memorial is a 1,600-metric-ton granite structure called the *Mountains of Despair*, a theme from Reverend King’s famous “I Have a Dream” speech. A 10-meter high sculpture of King is carved from the center piece.

The **granite** sculpture is the work of Chinese sculptor Lei Yixin. Museum President Harry Johnson explains why a Chinese sculptor was picked to create the statue.

“We chose him because we really believe that Dr. King’s message is true that you should not judge a person by the color of his skin, but by the content of his character,” said Johnson. “In these terms, we are thinking artistic character.”

Johnson says the King memorial will be a powerful statement about diversity in the United States—a tribute to how far this country has progressed in the area of civil rights since its founding.

“If America is as **prejudiced** as they say, then would they ever put an African American on the mall? And the answer would be no,” he added. “So now they say we have diversified. We have an America that looks like America when they look at the mall. And I think visitors from around the world are going to say that it is about time that we all understand who Dr. King really was and what he means, not to just America, but indeed the world.”

Johnson says plans for the memorial’s **dedication** call for Barack Obama, the first African American elected president, to deliver the dedication speech.

## FOCUS ON SOUNDS Track 02

1. The memorial will (feature) a wall of quotations (from) his writings.
2. The (foundation) is overjoyed that the project has come to (fruition).
3. Martin Luther King was in the (forefront) of the American Civil Rights Movement.
4. The law (forbids) discrimination based on sex, race, religion, or national origin.
5. The (focal point) is a structure called the *Mountains of Despair*, a theme from King's (famous) "I Have a Dream" speech.

## DIALOG Remembering a Hero Track 03

- M) Well, here we are. I can't believe I waited so long to come and see it. Thanks for coming with me, Kelly.
- W) No problem, Tim. I know that your father was very special to you.
- M) Yes. Even though I was only eleven years old when he died, I can still remember how kind and loving he was.
- W) It must have been quite a shock for the family when you got the news.
- M) Yes, it was. Of course we knew that he was in danger, but we always held out hope that he would come home.
- W) Well, I think this is a beautiful memorial, don't you?
- M) Yes, I'm very pleased with the way it turned out. I think my father would approve. That red granite is from the northern part of the state, and that bronze statue was made by a local artist.
- W) How long did it take to complete?
- M) Well, almost five years. People wanted a way to honor and remember the men and women from the area who had lost their lives in the war. It took a couple of years for the council to approve the funding and then another year or so to approve the design. They finally finished it last October.
- W) Did they have a dedication?
- M) Yes, a few weeks later they had a big ceremony, but it was during that time when I was so sick with the flu.
- W) Well, you're here now. Wow! Just look at all those names carved in the granite. There must be over one hundred!
- M) Yes, we often forget just how costly that war was in terms of human life—and that's just here in Tower City.
- W) Tim, come here! I found your dad's name! Captain John Robert Mollers. Captain? I didn't know that he was a captain.
- M) Yes. He received several medals during his service. My mother still has them hanging on the wall in her bedroom.
- W) Where is your dad actually buried?
- M) Somewhere in the south of France.
- W) Wow. That's far away.
- M) Yes. None of my family has ever made the attempt to travel over there and try to find the site. I'd love to go there with my family, and learn as much as I could about my dad and that time in history.
- W) That sounds like a wonderful adventure. Don't wait too long, or you might miss your chance.
- M) Actually, we're thinking about making a trip to France next year.

## Unit 02 Christmas Trees

### AMERICANS OPT TO CUT THEIR OWN CHRISTMAS TREES Track 04

On a chilly December afternoon, the Sylvester family heads to Snickers Gap Tree Farm, about an hour west of Washington, DC, to choose and cut down the perfect Christmas tree.

Decorating the Christmas tree—usually a pine decorated with lights and ornaments—is one of the traditions which makes the holiday season special.

The Sylvesters spend forty-five minutes out in the cold, wandering among the groves comparing trees. When they find their favorite—a three-meter-tall beauty as wide as daughter Elsa’s outstretched arms—they cut it down themselves. Then they drag it across the snowy field to the cash register, where they pay about \$100 for the privilege.

It doesn’t have to be this way.

Many roadside lots spring up at this time of year, selling pre-cut trees for half or a third as much. Hardware stores and other places sell them, too.

And artificial trees are becoming increasingly popular. About 12 million reusable plastic trees were sold last year, up from about 10 million in 2003.

In an age where cost and convenience drive many purchasing decisions, asking customers to pay more to cut their own Christmas tree seems like a bad business model.

But choose-and-cut Christmas tree farms remain the most popular place for Americans to buy a tree, accounting for a third of sales.

“Our business is as robust as it can possibly be,” says Snickers Gap owner Steven Wolff. “I don’t see the artificial trees as, currently, a threat to what we’re doing.”

“An artificial tree is not what Christmas is about,” Elsa says.

And the family clearly enjoys spending the time together outside. They take pictures and play in the snow.

“It’s more special,” says Elsa, whose family has come to chop down their own tree. “It’s fun.”

Her mom, Amy, agrees. “It’s about memories, good times,” she says. Wolff’s father started the farm in the 1980s.

“My dad always said it was about the experience, not the tree,” he says. “Everyone’s so involved with things that don’t connect them anymore with nature and the earth. And I think this is one thing that people enjoy doing.”

And for many Americans, it’s a family experience that makes the extra effort worthwhile.

### FOCUS ON SOUNDS Track 05

1. (Decorating) the Christmas tree is one of the traditions which (makes the holiday) season special.
2. (They cut) it down themselves. Then they (drag) it.
3. Asking customers (to pay) more to cut their own Christmas trees seems like a bad model.
4. They (take) pictures and (play in) the snow.
5. Everyone’s so involved with things that don’t connect them (anymore) with (nature).

## DIALOG Real Is Best Track 06

W) Hello, Logan.

M) Hi, Jenny! Come on in. Wow, it is really snowing out there!

W) Yeah, it has been coming down hard now for about two hours. I came to drop off these cookie sheets I borrowed from your wife last month.

M) Well, Kim just stepped out to run a few errands, but she'll be back momentarily. I'm sure she would love to see you. Why don't you stay?

W) Thanks. Is it all right if I leave my boots on?

M) Sure. May I take your coat?

W) Yes, thank you. My, what a lovely Christmas tree! Where did you get it?

M) We always go to Smith Tree Farm just north of town and cut down our own. That's why it looks and smells so fresh! It costs a bit more, but there is just no substitute for the real thing.

W) Well, Steve and I finally decided to buy an artificial tree a few years ago. I do miss that fresh pine scent in our house, but I certainly don't miss all those messy needles all over the floor. It seemed like I was vacuuming every day!

M) Well, I agree that a real tree does require a bit more upkeep, but I think it's worth it. By the way, please excuse the mess—we're in the middle of a renovation project.

W) Looks like a big project.

M) Yes, we're replacing the floor in the kitchen, and it's a substantial undertaking. I'm only about halfway through tearing up the old floor.

W) What are you going to replace it with?

M) Well, it's funny that you ask because Kim and I can't agree on what to do! I want to put in a real wood floor—probably oak or maple. But Kim wants to use artificial flooring.

W) You mean like that laminate flooring that resembles wood?

M) Well, the manufacturer attempts to imitate the look of wood, but it just can't compare. It still looks like plastic!

W) But those laminates are very durable. With your two kids and the dog running around, won't a plastic floor last longer?

M) Yes, it doesn't scratch as easily as wood, and it is easier to clean. Plus, installing a laminate floor is about a third of the cost of wood.

W) Well, that sounds like the ideal floor for a kitchen.

M) In theory, you are right. But I just cannot get over how ugly it looks! There is nothing like the beautiful, warm glow from a real wood floor!

## Unit 03 Obesity

### **US GOVERNMENT SEEKS TO ADDRESS OBESITY** Track 07

More than a billion people around the world are overweight, and 400 million are **obese**, according to the World Health Organization. Two thirds of American adults are now overweight or obese. US health officials are so alarmed that they called an **unprecedented** conference on obesity in America.

Jo Chiti has battled weight for most of her life. "When you're heavy as a woman, it's depressing. It affects you emotionally," she said.

Chiti stopped eating high fat foods, began exercising . . . and lost eighteen kilograms. New research shows that obesity costs the United States \$147 billion a year, or \$1,400 a year more, for an obese person than for someone of normal weight.

Obesity costs Americans more.

That's what a study funded by the US Centers for Disease Control says. What's driving those costs are prescription drugs for obesity-related diseases such as diabetes.

Health economist Eric Finkelstein is the study's lead author. "The only way to show real savings in health expenditures in the future is through efforts to reduce the prevalence of obesity and related health conditions," he said.

Finkelstein says what's alarming is not just the number of Americans who have tipped their scales, but the pace at which they're doing it. Finkelstein says obesity affects all racial and ethnic groups, the rich and poor, and most dramatically, America's children.

One in every five children is obese or overweight.

With food everywhere designed to tempt the taste buds, Dr. Thomas Frieden, the director of the CDC says weight gain is hard to prevent. "If you go with the flow in America today, you will end up overweight or obese," he asserts. "This is not a result of a change in our genes. What has changed is our environment."

Dr. Frieden says Americans consume 250 more calories per day than they did twenty years ago. He says the rising obesity rate is the single greatest contributor to a national epidemic of diabetes.

Reversing obesity requires behavior modifications.

To help combat the obesity crisis, public health experts discussed the need to change people's behavior by promoting exercise and good nutrition.

Federal stimulus money would go to local communities to encourage grocery stores to sell more fresh produce in poorer neighborhoods and to get more fruits and vegetables into school lunches.

Finkelstein says because high-calorie, low-nutrient foods cost less than fruits and vegetables, it is harder to stay on a healthy diet, and as people use more technology, they tend to be more sedentary.

As for Jo Chiti, she is excited about the changes she has made. "It feels great. I feel like a different person," she said.

If only public health officials could bottle that enthusiasm and spoon-feed it to others.

## FOCUS ON SOUNDS Track 08

1. Two thirds of American adults are now (overweight) or obese.
2. US health (officials) are so alarmed that they called an unprecedented (conference on obesity) in America.
3. What's driving (those costs) are prescription drugs for obesity-related diseases such as diabetes.
4. Health (economist) Eric Finkelstein is the study's lead (author).
5. Dr. Frieden says Americans (consume) 250 (more) calories per day than they did twenty years (ago).

## **DIALOG** A Weighty Problem Track 09

- M) So what do you think is wrong?  
W) Well, the X-ray didn't show any problem.  
M) But I feel pain in my knees when I walk.  
W) When did the pain start?  
M) It started about a month ago.  
W) Did you injure your legs? For example, do you play any sports?  
M) No. I don't play any sports.  
W) Hmm. Did you have any kind of accident at work?  
M) No. I spend all day sitting in front of a computer. And I rarely go out for a lunch break. So I'm not really using my legs all that much.  
W) That sounds very sedentary. Have you noticed any other changes to your health recently?  
M) Well, I know I've put on some weight since I started my current job.  
W) According to the report here, you weigh 236 pounds.  
M) That sounds like a lot. . . .  
W) Well, Greg, a man of your height and build should be around 190 pounds.  
M) That means I'm about forty pounds overweight! I didn't even realize it!  
W) Your knees are under more stress because of your heavy weight.  
M) Are you saying that my knee pain is caused by my being overweight?  
W) Yes, I think so. It's quite common in obese people.  
M) So if I lose some weight, do you think my knees will stop hurting?  
W) I would expect that you would feel less pain. You know that many diseases can be a result of being overweight, too. It would be really good for you to have a more active lifestyle.  
M) I'm afraid exercise will make my knees hurt more.  
W) Well, perhaps you should start with some gentle activity like swimming. The water will support some of your weight. It will put less stress on your knee joints when you move. It's a perfect activity for you. When you start to lose some weight, you can then switch to other activities. I personally think walking is the best exercise. I always say that walking more, instead of going everywhere by car, is the best change anyone can make.  
M) Yes, I do drive everywhere.  
W) Right. Too many of us overuse our cars.  
M) It takes me just ten minutes to drive to work. So I guess that if I go on foot, it will take around twenty minutes.  
That's not far.  
W) No, that's not far at all.

## **Unit 04 Unhealthy Salt Content**

### **US RESTAURANT CHAINS CRITICIZED FOR UNHEALTHY SALT CONTENT** Track 10

Americans like to eat out. It's been estimated they go out for a meal or get take-out food from a restaurant at least five times a week. But there is growing concern about the quality of the food they consume. One health group is warning that some restaurants put dangerously high amounts of salt in the food they serve.

Doctors routinely warn patients to put the salt shaker down. It turns out there is already way too much salt in the food prepared in many restaurants.

Michael Jacobson is with the Center for Science in the Public Interest, a food safety and nutrition organization in Washington, DC.

“Salt is probably the single deadliest ingredient in our food supply,” he said, “causing tens of thousands of unnecessary deaths a year. And restaurants are a big part of the problem.”

Jacobson says adults with high blood pressure, or who are middle-aged or older, should consume no more than 1,500 milligrams of sodium [salt] a day. Children should consume no more than 1,200 milligrams a day.

Jacobson’s organization looked at the contents of at least one hundred meals from seventeen American restaurant chains and found that as much as four days’ worth of salt was in some dishes.

“This is the average amount of salt that Americans consume per year (holding up a jar). It’s eight pounds [3.6 kilograms], and the experts say cut it down at least halfway, and ideally almost two thirds of the way down,” Jacobson said.

A certain amount of salt in food is OK. According to the Mayo Clinic, salt maintains the right level of fluids in your body, helps transmit nerve impulses and contract and relax muscles.

But too much salt leads to fluid retention, higher blood pressure, and cardiovascular and kidney diseases.

Dr. Lawrence Appel of the Johns Hopkins School of Public Health says the elderly and those sensitive to sodium are vulnerable when the waiter brings the food.

“They consume a massive amount of salt without knowing it,” he said. “They end up short of breath and come to the [hospital] emergency room with flagrant heart failure.”

Dawn Sweeney represents the National Restaurant Association in the United States. She says her members are cutting back on salt content. “You look across the menu in those restaurants, and there are many choices that are low in sodium,” she states.

The Center for Science in the Public Interest and the American Medical Association have called for government limits on the amount of salt in commercially prepared food.

For now, those who make and serve that food are not required to reveal what goes into the recipe.

## FOCUS ON SOUNDS Track 11

1. But there is growing (concern) about the quality of the food they (consume).
2. Doctors routinely warn patients to put the (salt shaker) down.
3. “Salt is probably the (single deadliest) ingredient in our food supply,” he said.
4. Salt maintains the right level of fluids in your body, (helps transmit) nerve impulses, and contract and (relax muscles).
5. For now, those who make and serve that food are not required to reveal what (goes into the recipe).

## **DIALOG** Anti-Coconut Campaign Track 12

- W) I can't wait to see this movie! You've got the tickets, right?
- M) Yes, yes, don't worry. They're in my pocket.
- W) Great! Well, I'm just going to the concession stand to get some popcorn. Shall I get you the large size with cola?
- M) Actually, I don't want any, thanks.
- W) What? We always get popcorn. You once said that if there was one thing you couldn't live without, it was popcorn!
- M) I know, I know, but it just doesn't taste good anymore. It was crazy for the city to pass a law against the use of coconut oil in popcorn!
- W) Well, after they found out about what bad effects too much coconut oil can have on people's health, they did it to protect us.
- M) Protect us from what? A little fat? Smoking is not supposed to be good for you either, but there's no law against buying cigarettes.
- W) No, but you can't smoke them in many places. And everyone knows how dangerous smoking is.
- M) Yeah, we all know that smoking can be harmful to not only your own health, but also to other people's. But really, who are we hurting by eating some popcorn?
- W) Just us, I suppose.
- M) How much are we really hurting ourselves? I mean, how often do we eat movie theater popcorn? Maybe five or six times a year, right?
- W) Yeah, I guess we can't be in too much danger. Some people eat popcorn all the time.
- M) I'm just sick of the government treating us like little kids. We don't need to be told what we can and can't eat all the time. Do they think that we can't make decisions for ourselves?
- W) Well, at least we can still get a soda here.
- M) Great. Then let's get an extra-extra-large one!
- W) That doesn't sound healthy, either.
- M) Don't tell me you think we should stop drinking soda, too.
- W) No, but maybe we shouldn't joke about our health. I did see a documentary on TV which showed some cultures using lots of coconut oil in their meals. As a result, they have high rates of obesity. And they have diseases such as diabetes and heart disease. It really put me off coconut oil.
- M) Really?
- W) Yes. I don't want to use coconut oil again.
- M) Mmm, that's scary.
- W) Exactly.

## **Unit 05** The White House Vegetable Garden

### **A VEGETABLE GARDEN GROWS AT THE WHITE HOUSE** Track 13

Earlier this month, Michelle Obama and twenty-three schoolchildren helped prepare the ground for an **organic** vegetable garden on the south lawn of the White House. The first lady showed the young gardeners how to turn the **soil** for the one hundred-square-meter garden.

The students from nearby Bancroft Elementary School will help grow fifty-five kinds of vegetables, herbs, and berries. They will plant organic **seedlings** in a few weeks. The White House will provide organic **fertilizer** for the garden. Crops will include lettuce, spinach, broccoli, peas, onions, and berries. Mrs. Obama said two beehives will provide honey. The whole Obama family, including the President, will pull weeds in the garden. The total cost of the seedlings and fertilizer is \$200.

The vegetables and fruit will help provide meals for the Obama family, White House workers, and guests. The produce will also go to a nearby center that provides food for homeless people. Michelle Obama said the main goal of the garden is to educate children and influence communities to choose and prepare **healthful** food.

The garden will be the first on the White House lawn since World War II. President Franklin Roosevelt's wife, Eleanor, planted what was called a "Victory Garden" as part of the war effort in 1943.

Eleanor Roosevelt urged all Americans to grow their own vegetables and fruits. Much of the nation's farm produce at the time was feeding American soldiers. More recently, President and Mrs. Clinton had a small garden. But it was planted in **containers** on the roof of the White House.

The White House garden marks a victory for people like Professor Michael Pollan of the University of California, Berkeley. The writer and food expert has worked to increase public education about good food. He said gardens like the one at the White House help people reconnect with food and eat more healthfully.

In a public letter to Mr. Obama several months ago, Michael Pollan said a White House garden would set a revolutionary example of healthful eating and local farming for the whole country.

And that's the VOA Special English Agriculture Report, written by Jerilyn Watson. You can learn more about growing food at our website [voaspecialenglish.com](http://voaspecialenglish.com).

## FOCUS ON SOUNDS Track 14

1. The students from nearby Bancroft Elementary School will help grow fifty-five (kinds) of vegetables, (herbs), and (berries).
2. Crops will include lettuce, (spinach), broccoli, peas, (onions), and berries.
3. The whole Obama family, including the President, will (pull weeds) in the garden.
4. The total cost of the (seedlings) and (fertilizer) is \$200.
5. The produce will also go to a nearby center that (provides) food for homeless people.

## DIALOG Trying Something Different Track 15

B) Mom, is dinner almost ready?

W) Yes, I'm just about to take it out of the oven right now.

B) It smells great! It's Tuesday night. That means we're having pizza, right?

W) Not tonight, Cory. I thought we'd perhaps try something different.

B) Pizza is the best food on the planet! What are we having instead?

W) It's eggplant lasagna.

B) Eggplant? In lasagna? That doesn't sound very good.

W) I don't think you should be so rude after all the effort I have gone to make it. I got the recipe from Jane next door, and she says that her family loves it.

- B) They're all vegetarians or vegans and always eat strange things. They grow all their own food in their garden behind the house.
- W) Eating more vegetables doesn't necessarily mean that we are vegetarians, too. I am not going to stop cooking meat for us. But Jane did give me an eggplant and some fresh tomatoes from her garden, and quite honestly, I couldn't resist using them because they looked so good.
- B) Well, I do like tomatoes.
- W) I know. Here, try a little bit. Careful! It's hot.
- B) Mmm ... Wow! This is actually delicious!
- W) See? I think we should try to start our own garden this spring and use more vegetables.
- B) That's hard work. Isn't it easier just to go shopping?
- W) Yes, things like pizza are easier, but that's not the point. I want us to start eating more healthily.
- B) You can buy healthy food like vegetables at the store.
- W) I know, but most of the fruits and vegetables at the store are grown with pesticides. If we grow our own, we don't have to use those nasty chemicals.
- B) You mean grow them organically?
- W) Exactly. Can you imagine what some of those chemicals that farmers use might be doing to our bodies?
- B) I know. We learned about it at school. Pesticides might cause cancer.
- W) Right. So why are we putting ourselves at risk like that?
- B) You know, I also heard that the First Lady is starting a garden at the White House.
- W) That's right. She wants to grow healthy, organic food, too. So what would you like to grow in our garden?
- B) Tomatoes, for sure. And maybe some corn. And potatoes!
- W) I'm glad you're excited! Let's talk about it more during dinner.

## Unit 06 Non-Verbal Language

### DO GRUNTS AND SIGHS AND LAUGHS TRANSLATE ACROSS CULTURES? Track 16

A new study opens a fascinating window on how people communicate without words, and how some of the sounds people make to express emotion can be understood across cultural barriers.

When we communicate, we don't just use words. **Non-verbal** communication is important, too.

If you're talking face-to-face, things like facial expression, eye contact, and how close you stand can be an important part of the message.

There are also what researchers call non-verbal **vocalizations**—sounds that send a message without using words.

But how universal are these messages?

That's what Disa Sauter wanted to find out.

“And we were specifically interested in emotional expressions in the voice—things like laughter, crying, sighing, grunting—those kinds of noises that we all make. But what do they actually mean?”

What do they mean, and more specifically, do they mean the same things to people in different cultures?

“So to look at that, we studied a group called the Himba, who are a culturally isolated group, so a group that doesn’t really have anything to do with other groups. And they live in the north of Namibia in Southwest Africa,” Sauter explained in a telephone interview.

The Himba participants in the study live a life that is about as isolated as you can be in the modern world. The other group in the study included native English speakers in Europe.

People in both groups were asked to make sounds that expressed emotions like joy or anger without using words.

So for example, they were told to make a sound like they just realized they had eaten some rotten food.

Researchers recorded the sounds, then played them for people in the other group to see, for example, if the Himba recognized the sound of **disgust** that the Europeans made, and **vice versa**.

They sound a lot alike, which may be why both groups recognized the sound as **registering** disgust.

Sauter found that the sounds conveying negative emotions could be understood across cultural boundaries more readily than the sounds of positive emotions.

She says that could be because negative emotions might be older in our evolutionary history.

“And that could mean, in a sense, that they are more important. So we need fear to be able to react appropriately to a dangerous situation, to run away; and also, it’s important in a situation of threat to warn those around us—who are likely family members and close friends—to warn them of the danger that we’re facing.”

Expressions of positive emotions, like achievement, tended to sound more different.

Sounding so different, it’s not surprising that each group had a hard time identifying that and other sounds representing positive emotions. Sauter says it may be because positive emotions are more about creating and strengthening bonds within one’s own group, so you might not want others to know about it.

“The exception to this is laughter, which seems to be something that we’re prepared to share with strangers and friends alike, which I think is fairly **reassuring**, actually, that there are positive emotional signals that can communicate across all cultural boundaries.”

We reached Disa Sauter at her current office at the Max Planck Institute in the Netherlands. She was at University College London when she did her research. It was published online by the *Proceedings of the National Academy of Sciences*, which also gave us permission to use the audio clips used in the study.

## **FOCUS ON SOUNDS** Track 17

1. If you’re talking (face-to-face), things like facial expression, eye (contact), and how close you stand can be an important part of the message.
2. The other group in the study (included) native English speakers in Europe.
3. The sounds (conveying) negative emotions could be understood across (cultural boundaries) more readily.
4. She says that could be (because) negative emotions might be older in our evolutionary history.
5. There are positive emotional signals that can (communicate across) all cultural boundaries.

## **DIALOG** A Change of Face Track 18

- M) Hi, Betty. I haven't seen you for a long time. How are you?
- W) Pretty good, I guess. How about you, Tom?
- M) Well, work has been pretty stressful lately.
- W) That doesn't sound good. Why is that?
- M) Our bank has a new manager. He just started two weeks ago.
- W) I see. Is he very strict?
- M) I don't think so. He seems like a nice guy, and he understands the business well.
- W) So what's his problem?
- M) Well, he's really difficult to read.
- W) Read? What do you mean?
- M) Well, when I talk to him, he just looks at me and doesn't say anything. I can't tell what he's thinking about me.
- W) Doesn't he give you any feedback?
- M) None. When I've finished giving my report, he just says, "Thank you," and that's it.
- W) Well, maybe that's because you did a good job. Anyway, men don't usually show their feelings as much as women, right?
- M) But, why can't he even just smile? It's not as if his English isn't good enough. In fact, you can hardly tell at all that this guy is not American.
- W) You mean he is from overseas?
- M) Yeah. Actually, he's from Germany. He was a manager at our branch in Hamburg.
- W) Well, that explains a lot. Germans typically do not express much emotion in the workplace.
- M) Really? But the previous manager, Debora, used to give us all kinds of feedback. She would say, "That's great!" or "I really like what you're doing," or something like that. She always had something positive to say.
- W) You mean she never criticized you?
- M) No, not that I can remember. She was always saying nice things to us and taking us out to lunch and such. Debora was a lot of fun.
- W) Don't you think it's a bit strange if a boss is a fun person?
- M) No, why? Everyone liked her.
- W) Then why did she get replaced?
- M) Well, our branch was not meeting the goals set by the head office.
- W) Well, maybe that's because Debora wanted you to like her, so she didn't push you hard enough. As a result, you didn't meet the goals.
- M) I think you're right. Maybe this new manager's style is the best for our office. But I will need some time to get used to it.

## **Unit 07** Antarctic Tourism

### **TOURIST ARRIVALS UP IN ANTARCTICA** Track 19

Considered a remote location for so long, Antarctica is becoming more accessible to outsiders, and as a result, tourists are arriving in record numbers. But in the continent's **pristine** environment, even the smallest changes are **magnified**, despite the best efforts of tour operators to prevent this. The human impact is making its mark.

There are only two ways to get to Antarctica: by ship and by plane. And neither one is an easy journey.

Still, Antarctica is now more accessible than ever, and it has become the “it” place to visit for adventure tourists.

The 2007-2008 tourism season set records with more than 46,000 tourists making the journey to Antarctica. This is more than twenty times the number as in 1983.

But environmentalists are worried about their impact. Uruguayan environmentalist Rodrigo Ponce de Leon says the concerns begin with how the tourists get to Antarctica.

“The main problem is with tourist ships,” he said.

The vessels can and do leak gasoline or oil into the normally pristine waters, despite efforts to stay environmentally friendly. Even a small spill in this fragile environment can have deadly consequences.

Ponce de Leon says the most vulnerable creatures to the leaks are krill—the shrimp-like crustaceans that form the foundation of the Antarctic food chain.

“Krill is very important for the life here. Not only for us, it is important for the life of the birds, penguins, that’s the fish, mammals,” he said.

The International Association of Antarctic Tourism Operators admits things are getting a bit crowded, especially along the Antarctic Peninsula.

Brazil’s Jose De Medeiros says everyone working on Antarctica is aware of the issue.

“The human presence is bigger here than any other place, and that’s why it is the most impacted area,” he said.

While there is a limit to the number of boats which can come into the harbor at any given time, there is no such limit on the ships’ size, and the ships are getting bigger.

Member nations of the Antarctic Treaty, which governs the continent, are considering imposing mandatory tourism limits.

But increased tourism is not the only concern. The proliferation of research stations scattered about the continent also is having an impact.

There are now more than sixty in all, and the head of Chile’s Antarctic program, Jose Retamales, says many are expanding their stations.

“Half the buildings you have seen, they were not there five years ago. The Chinese station, the Korean station, they all make new buildings. I don’t think we should have so many stations in Antarctica,” he said.

Yet no country seems willing to give up an established station, even though most conduct similar experiments and then share information under the treaty guidelines.

“The studies of Antarctica are important for each country because it’s a very big continent and a lot of countries come to have observations of each point in Antarctica,” said Alexander Orup, who heads the Russian station.

Yet the bases are trying to reduce the impact of their operations.

Composting facilities, like this one at Chile’s Frei base on King George Island, are just one of the programs which have been implemented under an environmental protection accord reached in 1980.

Recycling in general is now standard operating procedure, and the stations are looking for more environmentally friendly alternatives to the heating oil they use to power and heat their buildings.

By living and working in Antarctica, they know better than most what the human impact can be in an environment where the cold temperatures preserve the good—and the bad.

## **FOCUS ON SOUNDS** Track 20

1. Considered a (remote location) for so long, Antarctica is becoming more accessible to outsiders.
2. The vessels can and do leak gasoline or oil into the normally (pristine waters), despite efforts to stay (environmentally friendly).
3. Even a small spill in this (fragile) environment can have deadly consequences.
4. Member nations of the Antarctic Treaty, which governs the continent, are (considering) imposing (mandatory) tourism limits.
5. The (proliferation) of (research) stations scattered about the continent also is having an impact.

## **DIALOG** The Tourist Resort Track 21

M) Where do you want to go for summer vacation?

W) Well, how about going to Blue Lake Park? We haven't been camping there since the kids were little. It was so quiet and beautiful.

M) Yes, it was a great place. But it has changed.

W) How do you know?

M) Recently, I overheard a co-worker talking about it. He went there this spring with his family. He said it's horrible. He said it is completely different from how it used to be.

W) How?

M) It's become a huge tourist resort.

W) What? That little camping ground?

M) There's no campsite anymore. Can you remember about ten years ago—they built that new highway joining Oakdale and Metro City?

W) Yeah, I read about it in the paper. I remember how many people wanted to stop the development.

M) Right. Well, that highway goes right by Blue Lake.

W) Oh, I didn't realize that.

M) Instead of a small campsite, there's now a big water park. It has a hotel complex, theme park rides, and fast-food restaurants. It also has a giant parking lot.

W) Oh, no! Why would you need a water park on Blue Lake? The lake is already great for swimming.

M) Well, not anymore. Now, the lake is full of boats and trash. It must be really noisy there, too.

W) The fishing is still good, I'm sure. I remember we used to catch really big fish from the canoe.

M) There are now so many people there that the fish are almost all gone. What's more, the lake is now private property. You now need an expensive permit to take a boat out on that lake.

W) I suppose all the other wildlife has disappeared, too.

M) Yeah, I think so. I remember all the ducks and birds.

W) Yes. And there was that family of beavers. Do you remember how I got scared when one of them suddenly came out of the water in front of me? I thought it was an alligator or something. I screamed, and you jumped in to rescue me.

- M) (Laughing) Yeah, but now, sadly, it's just like any other commercial park.
- W) I wish I had known about the changes. I would have done something to try to stop it earlier.
- M) Hmm, yeah, it's too late to change it now.
- W) How terrible.

## Unit 08 High-Tech Patient

### HIGH-TECH PATIENT TEACHES NURSES CRITICAL SKILLS

Students from a medical school in the United States are learning emergency medical techniques from advanced **simulator** patients. Georgetown University has spent hundreds of thousands of dollars buying the latest simulators, which combine mechanical body systems, chemical sensors, and **cutting-edge** computer programming to simulate major body functions. There are about one thousand such simulators around the world. The use and popularity of these systems has recently increased among nursing students in the United States.

His name is Gus. He is not breathing very well, and his heart rate is high.

Megan Stevens is a postgraduate student nurse who has worked at a family general practice clinic. She is learning techniques to react to different situations when Gus needs emergency care. "You know, the assessments are done quickly, trying to work out what's going on with the patient and trying to fix [it], in giving him some medication, **cardioverting** him, like we did today, and seeing if that works and if not, keep going, trying to work out what will make him better," she explains.

"I can't seem to catch my breath," Gus said.

The team interacts with the patient, whose voice comes from Stephen Hurst, the University's Director of Medical Technologies.

Gus responds, "I tried sitting up or lying down. Nothing makes it better."

Hurst also manages the computer and monitoring systems in the control room. "The simulators we possess are **high-fidelity** simulators," he says. "They allow our students to interact with a physical mannequin and get the associated response, whether it is feeling pulses, or hearing lung sounds or breath sounds."

This simulator is one of a family of three mannequin patients at Georgetown university—a man, a woman, and a child.

Hurst changes the symptoms as students work on the mannequin patients. He says the simulator is the most advanced teaching aid in medical history. "Every time it takes a breath in, the computer samples a little bit of that gas, and figures out how much oxygen is in it, how much **anesthetic** gas in it. And then calculates with mathematical models for the appropriate response," Hurst said.

Program Director Dr. Karen Kesten sets up particular scenarios before the class begins. Watching from another room, she can assess the nurses' ability to respond to unpredictable situations.

"It gives me the opportunity to evaluate my students' assessment skills and their intervention skills, their recognition of a problem with a patient, and how quickly they respond and intervene appropriately or inappropriately," Dr. Kesten said.

Student nurse Alexis Walter says the simulator enables her to experience situations she might never have come across before. “We get nervous because our instructors are watching us. It is the place to make mistakes, but when you are in school, you feel the need to not make mistakes, but it is honestly the best place to do it,” Walter said.

After the patient is stabilized, the students are given feedback on their performance, enabling them to take those lessons back to the clinics and hospitals where they work.

## FOCUS ON SOUNDS Track 23

1. Students from a medical school in the United States are (learning) emergency (medical techniques) from advanced simulator patients.
2. Hurst also manages the computer (and monitoring) systems in the control room.
3. This simulator is one of a family of three (mannequin patients) at Georgetown University.
4. Watching from (another room), she can assess the nurses’ ability to respond to (unpredictable) situations.
5. The students are (given) feedback on their performance, (enabling) them to take those lessons back to the clinics and hospitals.

## DIALOG Annie Track 24

W) Jim, can you believe that we’ve been in college for two years?

M) No. Time has gone by so fast. What are you going to do this summer?

W) I’m headed back to Chicago. I will help run my parents’ supermarket. Since I’m a business major, I wanted to get more experience in the business world. What about you?

M) I’m doing something very different. I’m taking a summer chemistry course. I’ll be staying on campus.

W) Are you not going to work? I thought you wanted extra money.

M) Oh, I am. I’ve got a job as a lifeguard at the pool. It’s going to be very busy over the summer. They’re expecting a heat wave this year.

W) Wow! Lucky you! That sounds like a great summer job! It’s a fun job, with no pressure.

M) Yeah, maybe you think there is no pressure. But you have to complete first-aid training before you can start.

W) You’re going to save lives, huh? Just like on that TV show!

M) (Laughing) Well, I hope that I won’t have to really save someone’s life. That’s a lot of responsibility.

W) So how do you train?

M) Well, at the moment, we are learning what to do when someone’s heart stops beating.

W) How do they teach that?

M) Well, we use this high-tech mannequin named “Annie.”

W) Annie?

M) Yeah, that’s what they call her. She looks like a real person. Anyway, she has special electronic sensors in her chest. They tell us if we’re pushing too much or too little.

W) Really?

M) Yeah. If we use the correct pressure, a little green light comes on.

W) Interesting.

M) There’s another signal that tells us if we are blowing too much air into the lungs.

W) You could damage a person’s lungs if you do that, right?

- M) Exactly. Working with a simulator like Annie really helps us prepare to do the right things in an emergency.
- W) Is this class just for lifeguards?
- M) No. It's for anyone who wants to learn CPR. In my class, there are some other lifeguards, a couple of nurses, a volunteer firefighter, and a soccer coach. Lifesaving skills can be valuable for everyone, in fact. Maybe you could try it.
- W) The training sounds very useful, but I can't stand the sight of blood!

## Unit 9 Electric Vehicles

### COMPETITION HEATS UP FOR ELECTRIC VEHICLES Track 25

Competition to produce the most fuel-efficient vehicles is shifting into **overdrive** after General Motors announced triple-digit miles-per-gallon ratings for its new hybrid-electric vehicle. Analysts say renewed interest in environmentally sound, ultra-efficient vehicles has opened a **myriad** of opportunities for manufacturers. One small company in Colorado is convinced it can give the big automakers a run for the money.

General Motors made a big splash this month when it announced its new electric vehicle, the Chevy Volt, will go an **astounding** 230 miles per gallon (more than ninety-seven kilometers per liter).

Company CEO Fritz Henderson believes the new line of gas-electric hybrids is the company's ticket back to profitability.

"A car that gets triple-digit fuel economy, we believe, can and will be a game changer for us," said Henderson.

Now in production, the Chevy Volt is expected to launch in 2010. Industry analyst Rebecca Lindland says there's a lot riding on the new car.

"It is very important that it be a homerun for them because they have put a lot of their reputation into this vehicle," said Rebecca Lindland.

But GM will have plenty of competition. Nissan is set to unveil its new all-electric Leaf next year, and Honda is expected to **roll out** a new hybrid gas-electric called Insight.

Although they can't compete with the Volt's fuel efficiency, the price tag—between \$10,000 to \$15,000 less—could win converts.

And there's also homegrown competition.

Coda, a new company based in Colorado, is promoting a new vehicle that can maintain speeds of 130 kilometers per hour for more than 160 kilometers without using gasoline.

The company has received \$45 million in stimulus funds to jump start production. Colorado Governor Bill Ritter was among the first to test-drive the prototype.

"This is the first Colorado company the Department of Energy has provided loan guarantee money," said Bill Ritter. "It means they believe in the concept."

Company officials hope to put twenty thousand of the battery-powered cars into production this year. At about \$35,000 apiece, Governor Ritter says the Coda produces no emissions and takes only six hours to charge.

“You take that car, and it goes to someone’s garage,” he said. “That person plugs it in, their energy’s delivered to their home through solar or wind or geothermal, and there’s zero emissions as part of operating that vehicle.”

But with so many fuel-efficient vehicles vying for attention, analysts say green vehicles are just part of the solution for the ailing auto industry. After the worst sales slump in decades, General Motors is targeting another emerging market with plans to build a compact car that will sell for about \$4,000. No word yet if the low-cost vehicles will be sold in the US.

## FOCUS ON SOUNDS Track 26

1. Competition to produce the most fuel-efficient vehicles is (shifting into overdrive) after General Motors announced its new hybrid-electric vehicle.
2. Analysts say renewed interest in (environmentally) sound, ultra-(efficient vehicles) has opened a myriad of opportunities.
3. Company CEO Fritz Henderson believes the new (line) of gas-electric hybrids is the company’s (ticket) back to profitability.
4. There’s also homegrown (competition).
5. Colorado Governor Bill Ritter was among the first to test-(drive) the prototype.

## DIALOG Considering a Hybrid Track 27

W) I’m thinking about getting a new car.

M) Oh, is there something wrong with your current car?

W) No, it’s fine.

M) How old is it?

W) I got it about two years ago.

M) That’s not long ago. Do you want to have two cars?

W) No. I really want to change to one of those electric cars. They are advertising those cars everywhere at the moment. I could save a lot of money on gas.

M) Yeah, I know the ones you are talking about. Why not get one of those gas-electric hybrids? They get amazing mileage.

W) I thought about those, but they still burn some gasoline. An all-electric car produces no emissions, so it’s better for the environment.

M) Don’t you have to drive a lot for your job?

W) Yes, I do have to drive around to visit clients during the week. But it’s mostly within the city. I only have to drive out of town about once a week.

M) How many miles do you think you drive in one day?

W) Hmm ... I don’t know exactly. I guess in a typical day, I might drive eighty miles. Some days it’s more.

M) How far can you drive with one of those electric cars?

W) Well, some can go up to a hundred miles on a single charge.

M) Even with stop-and-go city driving?

- W) Well, then the range goes down to about sixty miles.
- M) OK, so what happens when your car runs out of electricity? You will have to recharge your car at some point during the day, right?
- W) Yes, I know. But it shouldn't be a problem. The city must have lots of recharging points.
- M) I've never seen a place to recharge a car. What do they look like? And how much do they cost to use?
- W) I don't know. I guess if I can't find a place to recharge in the city, I'll just drive home and plug it in.
- M) That will interfere with your work, won't it?
- W) I know, I know. I guess I'll have to keep my regular car so I can drive it while my electric car is charging up.
- M) (Laughing) That doesn't sound very efficient to me!
- W) You're right. Maybe a hybrid would suit me better. I'll do some more research.

## Unit 10 Fight Chronic Diseases

### LEADING NGOS CALL FOR ACTION AGAINST CHRONIC DISEASES Track 28

Most people think diseases such as diabetes, cancer, and heart disease are problems that primarily affect wealthy countries. It's true that in developing countries, infectious diseases such as tuberculosis, AIDS, and malaria create a tremendous burden on society. But chronic diseases also create suffering for many people in both wealthy and low-income countries.

Recently, several disease advocacy organizations went to the World Health Organization to ask that more attention be paid to these diseases and their effects on the developing world.

Martin Silink heads the International Diabetes Federation. He says the number of people around the world with conditions like diabetes, heart disease, and cancer is growing rapidly.

"It's thought now—and the estimates are really very good—that six percent of the adult population of the world has this form of diabetes, type 2 diabetes," Silink says. "And it's growing at the rate of 7 million more each year."

As people start to live longer and more prosperous lives, they are more prone to chronic diseases. Silink says this is becoming evident as more people migrate to cities. Since 2007, more people in the world are living in cities than in rural areas.

"This migration from the country to the cities is still occurring," he says. "There is very good information that shows that if you move from a rural, country location to the city, then you double your risk for diabetes. If the city is more than a million people in size, you double it again. And if it is a mega-city of more than 10 million, you double your risk of diabetes again."

But Silink says organizations like the World Health Organization and large donors tend to focus exclusively on communicable diseases. They don't fund research or treatment for chronic diseases. He says it's a mistake and is unnecessary.

"It turns out that there is only about a list of ten very simple drugs that are all out of patent, and they can be manufactured very, very cheaply," Silink says. "And all it needs is for a political commitment to make these cheap drugs available to this enormous burden of non-communicable diseases in the developing world."

Silink and other health care leaders went to Geneva this past week to ask the World Health Assembly at the World Health Organization to increase funding and attention to chronic diseases such as high blood pressure, diabetes, and cancer.

“You cannot divide a person into communicable and not communicable,” Silink says. “It turns out that this person with tuberculosis may well have diabetes. The person with HIV/AIDS will develop heart disease.”

Silink says donors and international organizations need to focus more on strengthening health systems, not just providing funds for the eradication of one disease or another.

Silink made his presentation to the World Health Organization in Geneva this past week, along with the heads of the World Heart Federation and the International Union Against Cancer.

## FOCUS ON SOUNDS Track 29

1. Most people think diseases such as (diabetes), cancer, and heart (disease) are problems that primarily affect wealthy countries.
2. Chronic diseases also create suffering for many people in both (wealthy) and low-income countries.
3. Silink says that this is becoming evident as more people migrate to (cities).
4. They don't fund (research) or (treatment) for chronic diseases. He says it's a mistake and is (unnecessary).
5. Silink and other health care (leaders) went to Geneva this past week.

## DIALOG A Rich Disease Track 30

W) Did you hear what happened to Peter?

M) No.

W) Well, you know that he went on his honeymoon to Brazil?

M) Yes. He got married last month, right?

W) Right. Well, guess what? He got malaria.

M) Oh no! That sounds bad. Is he OK?

W) Thankfully, yes. He was in the hospital for two weeks, but he's much better now. Fortunately, he got to a hospital before it was too late.

M) That was lucky.

W) Yes. It's a really terrible illness. It kills a lot of people around the world because they cannot get good medicine.

M) We are so lucky not to have terrible diseases like malaria. Malaria is a problem that is out of control. It's very hard to avoid being bitten by a tiny mosquito, don't you think?

W) Yeah, many people think malaria is one of the world's biggest killers.

M) Isn't it?

W) It is. Even though we live in a wealthy country, we still have endemic diseases of our own.

M) But not as bad as malaria, right?

W) Well, diseases like diabetes, cancer, and heart disease are big problems among the American population these days. Those illnesses can cause as much pain and suffering as malaria.

M) That's true. I suppose that our high standard of living puts a different type of pressure on our health.

W) Yeah, we have a higher standard of living than a lot of places around the world. But studies have shown that people who live richer lifestyles get some of the worst kinds of diseases.

- M) If we have too much money, why can't we just afford good medicine and more research to understand how to treat these illnesses?
- W) I don't think that money can solve our particular problem. We lead lifestyles that are just too unhealthy. We consume so much food, especially food that is high in fat, sugar, and salt.
- M) You're right. Look at us—we're just sitting at a desk all day in stressful jobs. We don't exercise.
- W) Yeah.
- M) All of this is bad for our health. We're perfect bad examples of leading the typical American lifestyle of the 21<sup>st</sup> century.
- W) Right.
- M) Now I can see how a prosperous life is not always a healthy life.
- W) Exactly. People suffer from diseases all over the world, whether rich or poor.

## Unit 11 The Cow Genome

### **COW GENOME COULD IMPROVE MILK, BEEF PRODUCTION** Track 31

This is the VOA Special English Agriculture Report.

Researchers from twenty-five countries now have a full genetic map of a cow. Understanding what makes a cow a cow could lead to better milk and meat production.

It could also help drug companies. The cow **genome** is more similar to humans than to mice or rats. Mice and rats are commonly used to test new medicines. Project scientist Harris Lewin from the University of Illinois at Urbana-Champaign predicts there will be more laboratory cows in the future.

The **Bovine** Genome Sequencing Project found that the cattle genome contains at least 22,000 genes. Most of these are shared among humans as well as mice, rats, and other **mammals** used for comparison in the study.

More than three hundred researchers studied a female Hereford cow from the American state of Montana. The genome took six years to complete.

A genome is not just a map of the order of genes. It contains information about every position, including spaces on the **chromosomes** on which genes are grouped.

The findings are in the *Journal of Science*. A related report looked at genetic changes in cattle over time. The bovine family tree divided into two major groups more than 250,000 years ago.

Taurine cattle have no hump on their back. They are mostly found in Europe, Africa, and East and West Asia, as well as the Americas. Indicine cattle have a hump and are found in India, South and West Asia, and East Africa.

Humans started to **domesticate** wild cows about 8,000-10,000 years ago. Scientists examined several **breeds** and say the cow genome appears to show evidence of this selective reproduction.

Today, more than eight hundred breeds of cattle are raised for different qualities. But some people are concerned that intensive breeding has reduced genetic differences among cattle. This could make it easier for disorders to affect a large number of animals.

The scientists say the current level of diversity within cattle breeds is at least as great as within humans. They also say the new genome will make it possible to better protect genetic diversity.

Yet there may be more questions to settle about what makes a cow a cow. A team led by Steven Salzberg at the University of Maryland also published a cow genome last month in the *Journal of Genome Biology*. That team disagreed on some points with the findings published in *Science*.

And that's the VOA Special English Agriculture Report, written by Jerilyn Watson.

## FOCUS ON SOUNDS Track 32

1. Understanding what makes a cow a cow could (lead) to (better milk) and meat production.
2. The cow genome is (more similar) to humans than to mice or (rats).
3. A (related report looked) at genetic changes in cattle over time.
4. Today, more than eight hundred breeds of cattle are raised for (different qualities).
5. The scientists say the current (level) of diversity within cattle breeds is at (least as great) as within humans.

## DIALOG Frankenstein Fish Track 33

- M) Good afternoon, ma'am. What can I get for you today?
- W) Well, I'm hosting a dinner party this weekend. It's for my husband's boss and his co-workers. I plan on having an outdoor barbeque. I need some good food, although it's going to cost me a lot!
- M) That sounds wonderful! Are you thinking of any kind of meat in particular?
- W) Not really. I think a variety of meat would be good. Some people prefer white meat to red meat, for example, and others prefer fish. . . . I guess it's going to be a bit complicated.
- M) Well, let me suggest some products for you. Firstly, we have salmon steaks on special offer this week.
- W) Salmon is delicious. We could even have raw salmon with salad, too.
- M) Yes, and all of our salmon is wild-caught.
- W) What does that mean?
- M) Well, it means they were taken direct from the ocean. They were not raised on fish farms, so they have not been genetically modified in any way.
- W) Yeah, I've been hearing about those Frankenstein fish in the news.
- M) Yes. Scientists can combine the DNA of a salmon with genes from other kinds of fish. They can create a salmon that grows twice as fast as a normal salmon. They look big and juicy in the markets, but they are not produced in a natural way.
- W) Really? Such a process sounds so strange.
- M) I think so, too. We cannot be sure of the effects of what we are eating if we eat genetically modified food. I'm happy to say that we only sell natural salmon here.
- W) Great. What meat do you recommend here?
- M) We offer one hundred percent organic beef. In my opinion, it's the best-tasting beef anywhere.
- W) What makes it so delicious?
- M) Well, the cattle are raised on organic corn. I know because we buy the beef from my uncle's farm.
- W) Wonderful! I'll be supporting a local farmer, too.
- M) Yes, and are you planning on hamburgers or steaks?
- W) Hamburgers.
- M) Then you'll need the ground beef.
- W) OK. How much do I need to make eight burgers?

- M) I'd say about three pounds should do it. How many of those salmon steaks do you need?  
 W) Hmm ... they look pretty big. I think four should be fine, thanks.  
 M) Here you are, then.

## Unit 12 Human Skin

### HUMAN SKIN RICH ECOSYSTEM OF BACTERIA Track 34

Skin is our first line of defense against disease and injury. It's an essential barrier against the germs of the outside world. When you look at your skin, it's hard to imagine that it's completely covered in bacteria. Now some new research finds your skin is even more colonized by micro-organisms than previously thought.

Despite bacteria's bad reputation, not all micro-organisms are bad, says Elizabeth Grice, a geneticist working at the US National Human Genome Research Institute.

Grice says many bacteria play some kind of beneficial role in maintaining health. Others **exacerbate** skin diseases such as eczema or acne. But our knowledge about these microscopic hitchhikers is incomplete.

Grice and her colleagues decided to use some new technology to examine skin bacteria. They recruited ten volunteers to donate samples of their skin bacteria, and the volunteers had skin scrapings taken from twenty different locations on their bodies.

"These areas were chosen based on the diversity in terms of the types of environments they are," Grice says. "For example, we chose a very hairy area of the body, the back of the scalp, but we also chose hairless areas such as the palm of the hand."

Grice used a genetic technique called PCR, or polymerase chain reaction testing, to examine the bacteria's DNA. This helped her identify the different micro-organisms more precisely. Previously, scientists were only able to identify bacteria that tolerated the growth media well. But with PCR testing, Grice says they were able to find bacterial species **heretofore** unknown on skin. And she says they found many more types than expected.

"The dominant bacteria in the oily areas is a *Propionibacterium* which we know is present in oily areas for the most part because this type of bacteria is able to break down the oils in our skin," Grice says. "In the moist areas, we commonly see *Staphylococcus* species, and in the drier areas, we generally see a greater mix and variety of bacteria. There didn't seem to be one dominant type."

Grice says, surprisingly, dry areas of the skin, such as the forearm, had the greatest number and variety of bacterial species.

"Some of the drier areas are more exposed to the environment, and what we may have sampled from the drier areas may actually be **transient** bacteria and not actually bacteria that set up permanent residence there," she says.

Grice says there's much more to be learned about the many different kinds of bacteria on the skin and what role they play in health. And she **posits** that the bacterial environment on your skin may determine what types of **pathogens** you are **susceptible** to.

Grice's paper is published in the journal *Science*.

## FOCUS ON SOUNDS Track 35

1. It's hard to imagine that it's (completely) covered in (bacteria).
2. Despite bacteria's (bad reputation), not all micro-organisms are bad.
3. Grice says many bacteria (play) some kind of (beneficial) role in maintaining health.
4. But our knowledge about these (microscopic) hitchhikers is (incomplete).
5. (But with) PCR testing, Grice says they were able to find (bacterial species) heretofore unknown on skin.

## DIALOG Extreme Hygiene Track 36

W) Hi, Jim! How was the weekend with your sister?

M) It was good to see her. I spent some time with my little nephew. But it wasn't very relaxing.

W) Oh, dear. Why not?

M) Well, my sister has developed a new habit. She likes to keep everything really clean.

W) That's a good thing, right? Now that I am preparing to move, I am finding so much dust everywhere. I can't believe I've been living in so much dirt!

M) Well, yes, it's good to be clean. But her house is like a hospital!

W) (Laughing) Oh, no.

M) I stayed there for three days. She washed my sheets and towels every day. The washing machine was running all day long.

W) That sounds like hotel service!

M) Yeah, and she was cleaning non-stop. She was always spraying kitchen surfaces and door handles.

W) I use those sprays. I find them really convenient.

M) Me, too. But not every day! She even asked me to wash my hands before playing with my nephew.

W) Really?

M) Yes, and of course I had to wash my hands with antibacterial soap. I nearly got angry at that point.

W) Wow. Did you try to talk to her about this?

M) I tried, but she wouldn't listen. It's like she is at war with all bacteria. It's been that way since her son got a nasty virus last year. I understand that she wants to keep my nephew from getting sick. But I think it's too much!

W) You're right. You know, that kind of clean environment actually isn't good for children.

M) I agree. Kids need to be exposed to dirt and germs. It helps them build their immune systems.

W) Right. Many scientists worry that we are overusing antibiotics and antibacterial products.

M) Yeah, there's a lot in the press about that these days. My doctor has even stopped giving antibiotics for the cold and flu.

W) Yes, everybody now knows bacteria can become resistant to antibiotics.

M) The more we use those products, the more we are actually harming ourselves.

W) Exactly. The conclusion should be that we don't have to fight every single germ on this planet. Just use common sense when maintaining hygiene.

M) Right.

## Unit 13 Music for Premature Babies

### **MUSIC MAY IMPROVE FEEDING, REDUCE PAIN IN PREMATURE BABIES** Track 37

All over the world, in every culture and every language, mothers sing lullabies to calm their babies. Now, new research shows this kind of **soothing** music helps smaller, sicker babies become healthier, too.

Many infants are born too early, too small, or too sick. And sleep doesn't always come so easily for these littlest babies. They often end up in **neonatal** intensive care units, where they can be hooked up to probes and wires and subjected to painful, but necessary, poking and **prodding** from doctors and nurses.

Neonatology researcher Manoj Kumar from the University of Alberta has been in many neonatal intensive care units. Often he sees the nurses play music next to the incubators holding these sick infants.

"It's very informal. Usually, the choice of the music is by the parents," says Kumar. "Usually these are slow, sort of smooth lullaby types of music."

Kumar says no one knew for sure whether this music really benefits babies, and he wanted to know more about the effects. He reviewed all the studies he could find about lullabies and neonates. He found only nine done over the past twenty years which were rigorous enough to prove anything. He recently **collated** their data in an article published in the *Archives of Disease in Childhood*.

Some of the studies found music was useful for babies having painful procedures, such as a skin **prick** to collect blood or a circumcision.

"Usually when babies are subjected to painful procedures, their heart rates go up and stay up for a fairly long period of time, and they come down as the stress level comes down," Kumar says.

"So what they noticed was there was more stability in their heart rates. There was more stability, in terms of other **physiological** parameters, than in the babies who were not subjected to music while they were going through painful procedures."

But Kumar says babies stopped reacting to pain more quickly when music was played, and they calmed themselves more efficiently.

The most interesting thing Kumar says he found was that playing music for babies who were undernourished helped them eat better.

"If they were subjected to a system where, while they were sucking on their bottles, they were able to activate lullaby music, their feeding habits improved," he says. "They were able to finish their bottles much faster."

And Kumar says the faster and better these babies ate, the sooner they were able to go home with their families.

Kumar says he'd like to do some original studies on music and infants. He says he wants to see if music alone is best or if the music is more effective when combined with the sounds of a heartbeat—the kind of rhythm babies might have heard when they were inside their mothers' wombs.

## FOCUS ON SOUNDS Track 38

1. Often he sees the nurses play music next to (the incubators).
2. Kumar says no one knew for sure (whether this) music really benefits babies, and he wanted to know more (about the) effects.
3. So what they noticed was (there) was more stability in (their) heart rates.
4. The faster and better (these) babies ate, the sooner (they were) able to go home with their families.
5. The kind of (rhythm) babies might have heard when they were inside (their mothers') wombs.

## DIALOG A Hearing Problem Track 39

- M) Hi, Marie. Where are you going so early with all those books?
- W) I'm going to the library to study for tomorrow's math test.
- M) Oh. Why don't you just study in your dorm?
- W) My dorm is so noisy that I can't concentrate. I would prefer to study in my room, though. It's much more comfortable. I can eat snacks in my room, too, unlike the library!
- M) I used to have the same type of problem.
- W) Really?
- M) Yes. I didn't like studying at the library. I would see my friends there. Then we'd start talking. I would end up getting little work done.
- W) Right!
- M) But on the other hand, I also had exactly the same problem as you do at your dorm. There was always loud music playing. No one seemed to respect the fact that other people might be studying or sleeping.
- W) I know what you mean.
- M) Well, you know what? I found a great solution—I started listening to my own music on my headphones.
- W) I tried that with my MP3 player, but I could still hear the noise.
- M) That's precisely your problem. Those kinds of small, ear-bud headphones don't work very well with background noise. You need some big ones that completely cover your ears.
- W) You mean those big ones like they use in a recording studio?
- M) Yeah, exactly. They really cancel out external noise much better than your ordinary MP3 player headphones. I got some cheap ones from the Internet. Studying has been much easier since I started using them.
- W) What kind of music do you listen to while you study? I think some music is actually more distracting than other types of noise.
- M) Right. Mostly, I listen to classical music, such as Mozart.
- W) I never listen to classical music.
- M) Scientific studies have shown that people can focus better when they listen to classical music.
- W) Really? I wonder why that could be?
- M) I think it's because there are no words—just a melody.
- W) Well, I really like your idea.
- M) Yeah, just try it. It really works for me.
- W) Thanks. Unfortunately, it's going to be too late to help me for this particular test.
- M) You're welcome. Good luck on tomorrow's test.
- W) Ha. Thank you.

## Unit 14 Daydreaming

### STUDY SHOWS BRAIN'S PROBLEM-SOLVING FUNCTION AT WORK WHILE WE DAYDREAM Track 40

Have you ever tried to solve a problem but couldn't find the answer? Then once you stop trying and move on to something else, the answer comes with ease.

Now a psychology professor examines how these moments of insight occur while we're daydreaming. Psychologist Kalina Christoff from the University of British Columbia notes that many times, as you're falling asleep or staring off into space, you come up with the answer to a problem that's been **vexing** you. It's that **phenomenon** which interests her, but she says it's hard to study something that happens so **spontaneously**.

So Christoff had to devise a way of getting people to not pay attention. To do that, she asked study subjects to perform the routine task of touching a computer screen every time they saw a number appear. Then she would stop subjects about once a minute—not so much that they would not be distracted, but enough to collect observations of when their minds were wandering.

"So what that allowed us to do is compare directly mind wandering versus thinking about the task and see what happens in the brain when your mind wanders," Christoff says.

As they were being tested, Christoff's subjects were lying inside of a brain scanner. The machine is able to see what parts of the brain become more active as a person concentrates or moves.

Christoff says she saw several things happening as people's minds started to wander from the repetitive task. First, the **default** network became active. Those are the parts of the brain that get busy as we do simple tasks, like watching TV or stirring a cooking pot. Christoff says she expected to see these parts of the brain engaged. But she also saw other parts of the brain in action.

"We also saw the executive network, the part of the brain that helps you solve very difficult problems and helps you make executive decisions, also activated when people [were] mind-wandering," Christoff says. "When people's minds wander, very far from the brain becoming blank, it in fact becomes really active, and an expansive number of regions become quite active when your mind is wandering."

Christoff says usually these two systems of the brain do not act at the same time. She says this tells her something about what's happening as we become **preoccupied** with a simple task.

"Even though you might not be working in a particularly focused way on any one problem, you do **have at your disposal** a number of different systems of the brain to work that problem," Christoff says. "You have an expanded range of resources available to deal with an issue that you might be mind-wandering about."

Christoff says she'd like to do further research on how people can harness the power of the wandering mind and use it as a tool to help solve difficult problems.

Her research is published in the *Proceedings of the National Academy of Sciences*.

### FOCUS ON SOUNDS Track 41

1. (Have you ever) tried to solve a problem but couldn't find the answer?
2. Now a psychology professor examines (how these) moments of insight occur while we're daydreaming.
3. But she says it's (hard) to study something that (happens) so spontaneously.

4. Christoff says (she saw) several things (happening) as people's minds started to wander from the repetitive task.
5. Christoff says she'd like to do further research on (how) people can (harness) the power of the wandering mind and use it as a tool (to help) solve difficult problems.

## **DIALOG** Staying on Task Track 42

M) Oh, hi Amy! Are you taking a break, too?

W) Yup. Is there any coffee left?

M) No, but I'm making some more right now. You feeling tired?

W) Not really. I'm just having a hard time concentrating on my work. I've only been here one hour, but it feels much longer. I have to write a proposal for next month's budget meeting. You know everyone is going to be there, including the CEO.

M) That sounds interesting.

W) Yes, it's a challenge to write something that will persuade people.

M) That sounds much more creative than what I'm doing.

W) What's that?

M) Well, I'm just updating client records with address changes. It's just boring data entry work. I've been doing the same task for three weeks.

W) Trying to process financial data isn't easy, either. When everything on the page looks the same, my mind wanders a lot. I can't seem to bring all the information together in a meaningful way.

M) I know what you mean. One minute, I'm working on my computer, and the next minute, I'm looking out the window and thinking about something else.

W) Yeah, I'm a victim of daydreaming, too. This sunny weather makes it hard to concentrate on work. I just want to go outside and get some fresh air.

M) Hmm, it is a pity that we cannot work outside. Let's hope this coffee helps.

W) Coffee is always good. But I have another trick to keep me on track.

M) Oh, really? Please tell me your secret.

W) Well, when I'm feeling unfocused, I set an alarm to go off. It goes off every fifteen minutes or so.

M) An alarm? Like on a cell phone?

W) Sure. Although I just use the alarm on my watch because it doesn't distract other people around me so much.

M) OK. What do you do when your watch alarm rings?

W) Nothing.

M) Nothing? (laughing) What's the point of having an alarm?

W) Well, just in case I'm daydreaming again and losing my concentration, the alarm reminds me to focus back on my work. It really works for me.

M) Hey, that's a great idea. You're a genius!

W) Well, it's not mine. I read it in my husband's magazine.

## Unit 15 Depression

### RESEARCHERS SAY DEPRESSION PREVENTABLE Track 43

Depression is a common mental disorder characterized by sadness and lack of energy. It is a leading cause of **disability** worldwide. In severe cases, it leads to 850,000 **suicides** around the world each year.

"[It] can affect their school, their relationships with friends, increased risk for suicide, and increased problems with drugs and alcohol," explained Judy Garber, a doctor of psychology at Vanderbilt University.

She presented the results of a study on teenagers and depression at a conference in New York. She studied teens because adults who suffer from depression say it often begins in **adolescence**.

"I'd like to eliminate the **stigma** that's associated with it because it is common, and it is treatable, and we think, preventable," she added.

Garber led a study on more than three hundred teens who already had one episode of depression. Half the teens were in a **control group**. The other half had regular group therapy that examined depression and taught coping skills, ways of solving the problems that caused their depression.

"We focused on looking at how they were thinking about things, particularly how they deal with stress, particularly when a stressor occurs," she explained. "Do they blame themselves, do they think that things are going to be terrible forever? Do they think that it's all their fault? We get them to look realistically at the consequences of the events, consequences of their own actions, and then what they can do about it."

When the study ended, those in the prevention program had an eleven percent lower incidence of depression compared to the control group. Garber points out that preventing depression has broad social implications.

Depressed teens sometimes **act out** and commit crimes. Preventing depression saves precious community resources.

Another thing the researchers learned: If a parent is depressed, teenagers were much more likely to feel depressed. A parent's depression was such a strong factor that she says it prevented the program from helping these teens.

The researchers say their findings have the potential to improve the lives of many teenagers and reduce lost productivity when they enter the workforce.

### FOCUS ON SOUNDS Track 44

1. Depression is a common (mental disorder) characterized by sadness and lack of energy.
2. She presented the (results of a study) on teenagers and depression at a conference in New York.
3. I'd like to (eliminate) the stigma that's (associated) with it because it is common.
4. Depressed teens sometimes (act out) and (commit) crimes.
5. (Preventing) depression saves precious (community) resources.

### DIALOG Under the Weather Track 45

W) So Gary, just how have you been feeling?

M) Well, honestly Doctor, I don't feel much better since our last meeting.

W) I see. Are you still taking your medication?

- M) Yes. I've been taking it regularly.
- W) Good. But you say you haven't noticed any difference?
- M) Well, I have been sleeping better at night than before. But that's all.
- W) At our last meeting, you said you felt frustrated because you didn't get out of your house very much. Do you remember that?
- M) Yes. My lifestyle still isn't very active. I'm still out of work, and I really don't socialize very much. I just stay at home. That just seems to reinforce the negative feeling.
- W) OK. Do you recall that I gave you an assignment to do?
- M) Yes. You told me to call some of my buddies and get one of them to go to a movie with me.
- W) How did that go?
- M) Well ... er ... honestly, I didn't get around to it.
- W) Gary, the reason that I gave you that assignment is because you have to try and help yourself. You know that staying at home by yourself isn't helping your situation.
- M) But I am taking my medication regularly.
- W) Yes, and that's good. But you also have to work to change your behavior; otherwise, your symptoms will continue.
- M) What do you mean?
- W) Well, let's imagine that your friend complained of a headache from watching too much television. What could be done to help him?
- M) I could give him an aspirin to get rid of his headache for one thing.
- W) Right. That would help for that particular occasion. What if he just continued watching too much TV?
- M) Well, his headache will just get worse and worse.
- W) Exactly. He won't truly solve his headache problem with medicine alone. He needs to change his habit to stop watching TV. He needs to do other activities including going outside with other people—exactly what I suggested in your case.
- M) I see your point, Doctor.
- W) Now, I would like you to make another appointment with me one month from now. Hopefully, you can tell me by then that you've taken my advice. If not, perhaps we will need to look at changing your medication.
- M) Thank you.

## Unit 16 Asian Martial Arts Games

### THAILAND HOLDS FIRST AND ONLY ASIAN MARTIAL ARTS GAMES Track 46

Thailand this month hosted the first Asian Martial Arts Games with the aim of raising interest and national pride in the Asian fighting sports. Some of the participating countries, such as war-torn Iraq, have **struggled** against real and deadly fighting back home to promote the sports. But the Olympic Council of Asia has decided these will also be the last martial arts games.

The first Asian Martial Arts Games open in Thailand, bringing together hundreds of athletes from forty Asian countries to test their fighting skills.

The competitions range from well-known martial arts, such as kung fu and karate, to the more exotic, such as Uzbekistan's kurash, a form of wrestling.

Iraq's National Olympic Committee managed to send a team of athletes, despite past struggles against funding problems and political interference.

As the bus takes them to Bangkok's National Stadium, the excited Iraqis dance and sing.

Mustafa Alsarai, a muay Thai, or kickboxer, says Iraqi martial artists have had to overcome security concerns and crumbled infrastructure to promote their sports.

"This kind of sport is developing slowly," he said. "God willing, it will develop more in the future. The situation in Iraq right now is stable, so all kinds of sports will develop more. People can go to the clubs and develop sports, especially the martial arts. The Iraqi people like sports, especially martial arts."

Iraqis are starting to see government support for martial arts and other sports after years of neglect from war and political infighting.

Samir Sadiq al-Moussawi heads Iraq's judo federation and sits on the National Olympic Committee. He says martial arts are a good way to keep young Iraqis off the streets and out of trouble.

"This started last year when the government started supporting martial arts because they wanted all the youth to be part of this kind of sport," he said.

However, the First Asian Martial Arts Games will also be the last.

Even before the games began, the Olympic Council of Asia decided, for efficiency, to incorporate them into the Asian Indoor Games.

Sasithara Pichaichannarong is permanent secretary to Thailand's Ministry of Tourism and Sports, the organizer of the games. She says the ministry accepts the council's decision but is disappointed that Asia's martial arts will no longer have their own tournament.

"I feel that it's a little bit upsetting for us," she said. "I would like to have the second time, third time, the fourth time, only concentrated on martial arts games."

The games have also been plagued by complaints of poor organization and very few spectators.

Organizers brought in students to fill the empty seats, and many, unlike this student, do not stay long.

"I'm here because I love Thailand. The rest, they went home. But I'm still here because I really love muay Thai boxing," said a student.

Being part of the Asian Indoor Games could be good for martial arts. At the very least, they would attract a larger audience to Asia's fighting sports. And more interest could help turn more young people, like Iraq's Mustafa, into champions.

## FOCUS ON SOUNDS Track 47

1. Iraqi martial artists have had to (overcome) security concerns and (crumbled infrastructure) to promote their sports.
2. He says martial arts are a good way to keep (young) Iraqis off the streets and out of (trouble).
3. This started last year when the (government) started (supporting) martial arts (because) they wanted all the youth to be part of this kind of sport.
4. She says the ministry (accepts) the council's decision, but is disappointed.
5. The games have also been plagued by (complaints) of poor organization and very few spectators.

## **DIALOG** A Special Promotion at the Gym Track 48

- M) Hello, you've reached Red Dragon Martial Arts Center.
- W) Hi. Someone was handing out fliers for your gym. Could you please tell me a bit more?
- M) Well, we have a wide variety of classes, including karate, taekwondo, and kickboxing, as well as tai chi and yoga.
- W) I'm worried that I'm a bit too old. Is it just for kids?
- M) There are people of all ages taking classes here.
- W) But aren't your classes designed to train people for combat?
- M) Martial arts can be viewed as aggressive fighting sports by some people. But we understand most people train here for other reasons.
- W) Like self-defense?
- M) Well, that is one aspect. For most people, martial arts are simply a great way to keep fit.
- W) Which of the classes gives the best exercise?
- M) Are you looking for strength training or aerobic exercise?
- W) I want something that will help keep my heart in shape.
- M) OK. Well, we have a kickboxing class called "Kick It" that is specially designed to be an aerobic workout.
- W) Is it really hard? I'm not in very good shape, I'm afraid.
- M) Everyone finds the classes a bit tough at the beginning. But your body will get used to the pace in no time.
- W) I see. What class schedules do you have?
- M) Well, we have three different levels. Our kickboxing class meets every Tuesday and Thursday evenings. The beginner class is at seven, the intermediate class at eight, and advanced at nine.
- W) OK, so how do I get started?
- M) You just need to come down to our center to register. You undergo a basic needs analysis and health summary questionnaire. Then you can start pretty much straight away.
- W) I see.
- M) You get the first month free, and if you decide to continue, it'll be on a membership basis. There's a one-time membership fee on top of monthly class payments. There's also a small annual fee for insurance. But we can discuss that when you come in.
- W) Do I need any special clothes?
- M) No. To start with, any comfortable clothing will be OK. The membership fee entitles you to discounted clothing and equipment if you want to purchase anything later on.
- W) OK. Thank you for your information.
- M) You're welcome. We look forward to meeting you.

## Unit 17 Wildfires

### **MUSCOVITES FLEE CAPITAL TO ESCAPE FUMES AND SMOKE OF WILDFIRES** Track 49

Some five hundred fires continue to **blaze** across Russia. The flames have created toxic **fumes** in the capital of Moscow. Several embassies, including those belonging to the United States and Canada, have **evacuated** all non-emergency personnel due to the many health risks from the smog, heat, and toxic fumes.

Aviation officials say hundreds of thousands of people have left Moscow in the last several days due to the acrid smoke and smog that has enveloped the region.

American Charlotte Turner is one of them. Standing at Domodedova Airport, she says she cannot wait to escape.

“It’s like walking through a campfire,” said Turner. “Everywhere’s just smoky. It’s been terrible. It’s been hard to breathe, really terrible. [You] can’t even see one hundred yards. It’s like smoking a pack of cigarettes for four hours.”

The chief of Moscow’s health department said earlier this week that around seven hundred people are dying each day in the city—more than twice the usual number. The high death rate has been attributed to heatstroke and conditions exacerbated by the dangerous chemicals in the air. The authorities have urged people to wear facemasks and advised pregnant women to evacuate the city.

Speaking on Russia’s state-run English language channel, Dr. Vasily Vlasov, president of the Society for Evidence-Based Medicine, agrees that Muscovites have been in danger.

“The smoke which has come to Moscow has increased the carbon monoxide concentration in the air by several times,” said Dr. Vlasov. “The smog is surely very toxic and poisonous to breathe. We’ve registered a death increase in comparison with the usual summertime.”

That news has Lena Ivanova, who lives in the Moscow region, afraid for her and her family’s health.

Ivanova says it is dangerous here, like a war. She adds that the fumes are making the animals and everyone sick, and that they are going to leave.

Hundreds of fires are still raging across Russia, affecting nearly all aspects of life and threatening to undercut Russia’s economic growth. Some economists believe that the heat wave, fires, and drought could cause up to \$15 billion in damage.

There has also been mounting anger over the government’s response to the disaster. On Tuesday, Prime Minister Vladimir Putin took to the air in a water bombing jet to help douse fires in one region. But some analysts say his actions failed to convince many Russians that the authorities have a handle on the situation. Further complicating matters, Emergency Ministry officials say they cannot get many of the blazes under control.

Meanwhile, aid from the United States has arrived in Russia. This morning, US Air Force planes touched down at Vnukovo airport, carrying water tanks, pumps, hand tools, and medical kits, among other things.

## FOCUS ON SOUNDS Track 50

1. Aviation officials say (hundreds of thousands) of people have left Moscow in the last several days.
2. (The high death rate) has been attributed to heatstroke.
3. Hundreds of fires are still raging across Russia, [affecting] nearly all aspects of life and (threatening) to undercut Russia’s economic (growth).
4. (There has) also been mounting anger over the government’s response to the disaster.
5. But some analysts say his actions failed to convince many Russians (that the authorities) have a handle on the situation.

## DIALOG Containing Wildfires Track 51

- W) Wasn’t that wildfire in California terrible?  
 M) Yes, it really caused a lot of damage, didn’t it?

- W) Yes. It would have been worse if not for the great skill of the firefighters.
- M) Right. They did a great job of keeping it from reaching people's homes. Last year, another wildfire across state killed half a dozen people.
- W) Hmm, I wouldn't want to live so close to a forest. It seems too risky.
- M) Me, neither. A fire isn't so bad if you understand the rules of fires.
- W) Can a natural fire really have rules?
- M) Yes, indeed. To control wildfires, you rely on creating "firelines." Firefighters predict which way the fire is moving. They can tell this based on wind direction. Then they clear a line in the forest ahead of the fire.
- W) How do they make this line?
- M) Well, teams of workers chop down the trees and clear the area.
- W) How ironic that they cut down the trees! I thought they were trying to save the forest.
- M) They are saving the forest. When they remove the trees in that line, they are taking away the fuel that the fire needs. When the fire reaches the line, it can't grow any more, and it burns out by itself.
- W) Oh, I see. By cutting down a small number of trees, they are saving many, many more.
- M) Right!
- W) That's really sophisticated.
- M) Yeah. Even before a fire starts, the forest service regularly conducts a controlled burn.
- W) What's a controlled burn?
- M) Well, over time, a forest naturally becomes crowded with small plants and shrubs. This is called undergrowth.
- W) Undergrowth—ha, my garden is full of it! I could be living right next to a bonfire!
- M) Right. Undergrowth creates a lot of flammable tinder that fuels fires. This makes them spread rapidly and become hot enough to burn everything around them. Just a cigarette end can ignite them, and they quickly spiral out of control.
- W) I see.
- M) Yeah. The temperatures generated by the fires are immense. The forest service will purposefully burn this undergrowth with small, controlled fires. That reduces the strength of wildfires when they happen.
- W) And that saves the larger trees. How smart!
- M) Absolutely. It's a lesson learned from our Native American people.

## Unit 18 Destructive Lionfish

### EATING TO BEAT INVASIVE LIONFISH Track 52

In the waters of the Caribbean Sea, a voracious invasive species called the lionfish is threatening to overtake the reefs.

Conservation groups are fighting back with an unusual approach. "Eat them to beat them," is their slogan, and they're urging chefs and diners to enjoy the unwelcome fish as a tasty delicacy.

The lionfish is native to the Indian and Western Pacific Oceans. It came to the United States as a popular aquarium fish. But in the past decade, lionfish released into the wild have invaded coral reefs in the Caribbean Sea and Atlantic Ocean.

These **ravenous** fish eat everything in their path, says Lad Akins, with the marine conservation group Reef Environmental Education Foundation (REEF).

“They eat other fish, **crustaceans**, mollusks, and octopi. Almost anything that moves and will go into that mouth, even up to half their own body size, is potential prey.”

Lionfish populations have exploded in the past few years. They’re eating so much that they’re pushing out native reef species. The US oceans agency, NOAA, says they pose a serious threat to commercially valuable fish like snapper and grouper, and put added stress on coral reef ecosystems that are already under pressure from pollution and climate change.

Experts want to **turn the tables** on this hungry predator.

NOAA has launched the “Eat Lionfish” campaign and is working to put the invasive fish on the menu at top US restaurants.

“The flesh is actually very light and delicate,” Akins says. “It’s not strong-flavored. So you can season it many different ways. It’s a great eating fish.”

Akins says REEF is putting together a lionfish cookbook, due out this summer.

But he cautions that lionfish may be a pricey delicacy. “It’s not like a traditional fishery where you can collect them in a large net,” he says. Lionfish are caught by labor-intensive spearfishing.

“It’s a bit expensive to get the fish,” he says. “But it’s worth it because they’re so good to eat. I think we’re going to see a market develop for lionfish as a delicacy. And people are going to pay a premium for it.”

At a time when environmental groups are warning about over-fishing, it’s unusual for a conservation group to encourage fishers to **decimate** a species. But Akins says this is one fishery that should not be sustainable.

“We don’t want to create a fishery that protects this fish and maintains stocks of this fish for the restaurants,” he says. “The goal is, eat them to beat them, and eat them until they’re gone.”

But invasive species expert Dan Simberloff at the University of Tennessee is skeptical.

“It’s a foolish idea, and it won’t work,” he says. There’s a long history of people suggesting culinary control of invasive species, “And historically, these really haven’t worked at all.”

For example, an invasive South American rodent called the nutria is destroying wetlands across the southeastern United States. Famous New Orleans chefs have come up with recipes for cooking nutria, but that’s done nothing to control the pest. Simberloff says it’s just too hard to get people to eat a new food.

But Akins says lionfish already is on the menu in some restaurants in the Caribbean. And he says people in the United States will be willing to pay for it, not only because a cooked lionfish tastes good, but also because it’s good for the reefs.

## FOCUS ON SOUNDS Track 53

1. Conservation groups are fighting (back) with an unusual approach.
2. It came to the United States as a (popular aquarium) fish.
3. Lionfish released into the wild (have invaded) coral reefs in the Caribbean Sea (and Atlantic) Ocean.
4. These (ravenous) fish eat everything in their path.

5. They pose a serious threat to commercially (valuable) fish like (snapper) and grouper, and put (added) stress on coral reef ecosystems.

## **DIALOG** The Plague Track 54

M) Welcome back to the Fall Harvest Market, Jenny. I see you've brought your delicious sweet corn again this year.

W) Thanks, Todd. I think this is the best crop yet. The weather was perfect!

M) I expect your sister Rose had great success with her garden again. Where is she?

W) Actually, this year has been really bad for her, so she's not here.

M) Oh, dear. What happened?

W) Well, grasshoppers damaged the majority of her plants.

M) Grasshoppers? I didn't have them in my garden this year. In fact, I had thought that they had disappeared from this region altogether.

W) Yeah, well, she had a swarm of grasshoppers that took up residency in her garden and ate everything. She had even increased the size of her garden this year to get a bigger crop, so she's particularly upset with what's happened.

M) Really?

W) Yes. Last fall, I helped her chop down some trees and shrubs to clear a space. It's about double the size now.

M) Oh, dear. I suspect I know what might have happened.

W) You do? Please tell me.

M) You say she removed some trees and shrubs. How many?

W) I'm not sure, exactly. They weren't very big trees. I'd guess we cleared an area about eighty feet by twenty feet.

M) Mmm. . . . That seems like a lot of vegetation that was removed.

W) Yes, I suppose. You could notice a big difference in how it was before compared to how it looked after.

M) Those kinds of areas are an important habitat for species like birds, so you shouldn't mess with them.

W) You're probably right. But I'm sure the birds found another place to gather.

M) Of course they found another place. But that is precisely the problem.

W) I don't quite follow what you're implying.

M) Well, what do birds typically eat?

W) Well, seeds and . . . insects! Of course—insects like grasshoppers!

M) Exactly! When your sister cleared that area, she changed the ecosystem. Even though she might have seen it as a small change, it nonetheless had dramatic consequences.

W) I never thought of that. The birds helped to control the grasshoppers before!

M) Yes, and now that they are gone, the grasshoppers can take over. It's no wonder your sister's crop was ruined.

W) It seems I've learned a very important lesson about nature.

## Unit 19 Treasure Box

### **UNICEF UNVEILS 'TREASURE BOX' OF ACTIVITIES FOR YOUNG CHILDREN CAUGHT IN EMERGENCIES** Track 55

The UN Children's Fund has **unveiled** a treasure box of activities for very young children caught in emergencies. UNICEF says its new early childhood development kit is fun, **stimulating**, and helps provide children in difficult circumstances a sense of normalcy.

The UN Children’s Fund estimates 175 million children are affected by war and natural disasters every year. A large number of these children are six years old or less. But until now, only ad hoc recreational toys and materials have been available to help these very young children cope with their traumatic experiences.

UNICEF Executive Director Ann Venemann says the new development kit provides young children with resources so they can play and interact with others.

“Studies show that early childhood is the most critical period for brain development, making young children the most vulnerable to the stresses brought on by war and disasters, such as hurricanes, floods, and earthquakes,” she said.

“Early experiences create a foundation for physical and mental health, optimal growth and lifelong learning, social emotional competencies, and productivity. If there is a disruption in development, for example, through serious trauma that is not addressed early on, it could result in lifelong development problems,” she added.

The kit is a box containing thirty-seven different items, for use by fifty children up to six years of age. Each kit costs \$230 and is bursting with soft, pastel-colored animal dolls. It also contains multi-colored puzzles, construction blocks, coloring pencils, memory games, and even soap for promoting hygiene.

UNICEF says the activities are wide-ranging. They encourage development, social interaction, and promote playing, drawing, and storytelling.

Office of Emergency Programs Deputy Director Dermot Carty recalls the magical effect produced by a recreational kit upon the lives of children suffering the traumatic effects of the Indonesian tsunami.

“The children’s lives changed immediately. I always remember when the box was opened and the response of the children,” said Carty. “First of all, they started looking at each other, looking for the box, and then looking at each other, and it resulted in smiles, and then suddenly, there was a rush for the box, and then suddenly, you had interaction. You had children laughing. They were running around. They were playing with each other. And it was just an amazing experience to have been there to witness that. In a period of five minutes, you could see the lives of one hundred children changing almost in front of your face.”

The kit was tested in Chad, Liberia, Congo-Brazzaville, Jamaica, Guyana, Maldives, and Iraq before being launched. Carty says UNICEF has 1,100 boxes ready to go to eighteen countries, and this number will grow.

## FOCUS ON SOUNDS Track 56

1. The UN Children’s Fund estimates 175 (million) children are affected by war and natural (disasters) every year.
2. A large number of these children are (six years old) or less.
3. The kit is a box containing thirty-seven (different) items, for use by (fifty children) up to six years of age.
4. In a (period of five minutes), you could see the lives of one hundred children changing almost in front of your face.
5. Carty says UNICEF has 1,100 boxes ready to go to eighteen countries, and (this number will grow).

## DIALOG Preparing a Special Gift Track 57

W) Hey, Michael, what are you up to?

M) Hi, Sharon. I’m making a care package for the victims of that catastrophic flood. It’s going to be delivered by a charity. The idea is to collect as many care packages as possible from people like you and me.

W) What exactly are you putting in it?

- M) Well, I have a list of possible items here. So far, I've added a mosquito net, some insect repellent, a bar of soap, a toothbrush, toothpaste, a water container, and a water purifier. You know that after a flood, it can be very difficult to find clean water. Most of it has become contaminated with dirt and disease-carrying organisms.
- W) I couldn't imagine not having a supply of clean water. We take clean water for granted here. Can I see your list?
- M) Sure. Here you go.
- W) Why aren't there any food items on this list?
- M) Well, these packages are going to be sent to areas that are being helped by other aid agencies. They are already providing food, such as rice. Other types of food might not be so practical.
- W) I see.
- M) Yeah, and what they are still lacking in are basic things that are important to maintain hygiene. They are just as important as food.
- W) I see. Hey, it says here that you could send small toys like marbles. They don't help prevent disease, do they?
- M) Well, marbles in themselves don't. But many of these families have lost everything in the flood and have no money to buy anything. Any little gift item becomes valuable. It's especially important in helping rebuild the children's lives.
- W) I'm sure it is.
- M) Even the smallest of toys provides at least some pleasure in an otherwise terrible situation.
- W) You know, I just had an idea.
- M) What's that?
- W) Well, why do we have to wait until there is some natural disaster to send these care packages?
- M) Good point.
- W) I'm sure that there are millions of kids who would love some toys anytime.
- M) I've heard about another organization that helps distribute Christmas gift boxes to poor children across the world.
- W) Let's do that this year.
- M) Great idea! Let's get our friends to do the same thing, too.
- W) Fantastic!

## Unit 20 Energy Cooperation

### US, CHINESE OFFICIALS DISCUSS ENERGY COOPERATION Track 58

The US Energy Secretary says global warming is proceeding more quickly than originally predicted. Stephen Chu is in China, the world's top emitter of the greenhouse gases that cause global warming, to urge greater Sino-American cooperation to combat the problem.

Energy Secretary Stephen Chu told an overflowing audience at Beijing's Tsinghua University that climate change is a growing and urgent problem. He says an effective solution will require stronger global cooperation.

"It's for this reason that one should not be saying, 'Well, the developed world has thrown out [emitted] all this carbon—you made the problem, you fix it.' We all live in the same world," said Chu. "The developed world did make the problem, I admit that. But the developing world is going to make the problem much, much worse, and we're all in it together, so we have to fix it together."

China and the United States are the world's top two **emitters** of carbon dioxide, from burning coal and oil. Many scientists believe carbon dioxide is one of the main reasons climate change is **accelerating**.

"China and the US, together, now **constitute** forty-two percent of all the carbon dioxide emitted in the world today," he said. "And so, what the United States does and what China does in the coming decade will actually, in large part, determine the fate of the world."

The two governments on Wednesday announced the creation of a joint research center to develop clean energy sources.

Chu's lengthy speech ran past the **allotted** time for questions from the students.

This nineteen-year-old physics freshman, surnamed Kang, says he would have asked Chu whether the US plans to share its latest technology to combat climate change.

Kang says, this is important because the technological level of many countries still **lags** behind that of the United States.

Technology is not the main issue for this twenty-five-year-old graduate student, surnamed Han, who is in Tsinghua's Built Environment Department.

To her, it is a matter of changing personal habits and attitudes. She points out that Chinese people, on average, use less energy than Americans.

Han says for example, Americans use clothes dryers and dishwashers—all electric appliances. She says Chinese people like to hang their clothes to dry naturally and wash their dishes by hand.

At the same time, she says she is impressed with Chu, a Chinese-American Nobel Prize winner whose parents both graduated from Tsinghua University. She says if the US and Chinese governments do cooperate to fight global warming, it can only be a good thing.

## FOCUS ON SOUNDS Track 59

1. Energy Secretary Stephen Chu told an (overflowing) audience at Beijing's Tsinghua University that climate change is a growing and urgent problem.
2. He says an (effective solution) will require stronger global cooperation.
3. China and the United States are the world's top two emitters of carbon dioxide, (from burning) coal and oil.
4. This nineteen-year-old (physics freshman), surnamed Kang, says he would have asked Chu whether the US plans to share technology.
5. (If) the US and Chinese (governments) do cooperate (to fight) global warming, it can only be a good thing.

## DIALOG An Unfair Proposal Track 60

W) Not another documentary about the environment!

M) This one's very interesting.

W) It seems all we hear about these days is global warming.

M) It's the most important topic in the world today.

W) Well, what "new" information did this program teach you?

M) Americans need to change their lifestyles. The fact is, we use too many of the world's resources—especially fossil fuels.

W) How are we supposed to do things differently?  
M) Well, why do we need so many cars for a start? We need to be less greedy and cut back on them.  
W) That's true.  
M) But the United States cannot work alone to make the necessary changes.  
W) What do you mean?  
M) Think about growing economies like China or India. Can you imagine if every family in those countries had a car? Think of all the pollution!  
W) Wait a minute. Are we going to tell the rest of the world that they can't have cars, when most Americans have more than one vehicle per household? That seems unfair.  
M) Well, Americans have had cars for so long that we've become dependent on them. If we gave them up suddenly, it could lead to many problems.  
W) So what's the solution?  
M) Well, we slowly reduce the number of cars.  
W) How much time would this take?  
M) Well, I suppose it would take at least ten years.  
W) That still seems very unfair. It's like we're telling other countries that they can't have the same things that we enjoy here in the States.  
M) But it needs to be done. This planet is in a state of emergency!  
W) If it's such an emergency, then why wait for ten years? We should quit using our cars right now.  
M) Right now?  
W) Yeah. I think you are being too idealistic. You want a reduction in cars, but you've also admitted how it's going to take a long time. Let's face the reality of how difficult it is to change things. Now, are you going to give up your car?  
M) I was actually thinking of buying a new one.  
W) Hmmph, that sounds a bit hypocritical considering what you've just been talking about.  
M) Yeah, but I am planning to get a more fuel-efficient model.