TOEFL iBT

Listening

2 sets, 5 audios and 28 questions, 36 minutes

Set 1

Conversation 1	5 questions	Time for questions: 10 minutes
Lecture 1	6 questions	
Lecture 2	6 questions	

Set 2

Conversation 2	5 questions	Time for questions: 6.5 minutes
Lecture 3	6 questions	

- You will not see the questions before and while the audio plays
- You will not be able to listen again to the full recording to check your answer choices
- You must choose an answer to proceed to the next question and you cannot change your answers after they are submitted.
- Some questions deal with particular parts of the audio recordings, and the test will replay a small audio clip for you. The answer choices appear only have the audio recording has finished.
- After a set of five or six questions is finished, the next recording will start automatically.

Note-taking Basics

Topic	Today I will be talking about, discussing, cover, look at, examine, focus on *We have been discussing…* *Last class, we went through…*		
Terminology	What I mean by… is…, What is…? What I mean is… …, which is / that is… symbolize, represent	In other words,… …is named / known / called… All that means is… …is… …is referred to as…	
Example	for instance as an example for example	such as take… for example take…	namely say consider
Cause & Effect	because, since as, that's why	because of, due to for	the reason is owing to
	so, thereby	therefore, thus, hence	accordingly, consequently, as a result
<u>Compare &</u> ***<u>Contrast</u>***	similar to, seem to, just like, likewise the same, equal to		but, however, nevertheless *on the other hand, while, whereas*
Emphasis	interesting, important, fascinating, exciting especially, indeed, certainly in fact, in particular, actually just remember, and again, one thing I should mention *even, only, just, of course, you…*		
<u>Others</u>	* numbers and listing * questions and responses * *research, theory, evidence, result, conclusion* * *features and factors*		

TPO 36 C1 Questions

1. Why does the woman visit her academic advisor?
(A) To compare requirements in the sociology and anthropology departments
(B) To get advice about changing her major
(C) To find out how to incorporate a new interest into her academic program
(D) To discuss the possibility of doing research on a Navajo reservation

2. What does the woman say about her summer experience?
(A) She spent a semester preparing for it.
(B) She did not expect it to be very important to her.
(C) It was her first job as a teacher.
(D) It required her to use her knowledge of the Navajo language and culture.

3. Why does the woman mention her friend?
(A) To explain how she got her summer job
(B) To emphasize how many people she met on the Navajo reservation
(C) To point out that her friend is studying the Navajo language and culture
(D) To explain how she learned about courses in the cultural anthropology department

4. Why does the professor mention the effect of education on Native American societies?
(A) To indicate the content of a course he thinks the woman should take
(B) To learn more about the woman's experiences over the summer
(C) To describe a research project he thinks the woman would find interesting
(D) To show his approval of the woman's career goals

5. What does the woman imply when she says this:

TPO 36 C1 Script

S Hi Professor Jones! Thanks for seeing me.
P No problem Lara? How was your summer break?
S It was great! But the fact is, it's made me reconsider my academic plans.
P Oh really? Nothing too dramatic I hope.
S No, no. At least I hope not.
P What do you mean, exactly?
S Well I just spent the summer working on a Native American reservation, a Navajo reservation in Arizona. And I was fascinated. So now I wanna study the Navajo language, uh their history, religion. I wanna go back next summer too, and maybe even spent a semester there. Some kind of internship or independent study?
P Wow, sounds like you're really enthusiastic. But you were majoring in Sociology, and I seem to recall that for your senior project, you were doing something with education?
S Right. I've done some research on the public schools in the northeastern states. How they've been affected by changes in population, uh immigration trends, during the past 50 years. But, now I really want to study the culture of the Navajo people.
P Well, there are a couple of options, depending on your priorities. Say, how'd you end up on a reservation in Arizona anyway?
S Well, a friend of mine took a job there. Uh in a summer school program and they had another opening. Someone canceled at the last minute. I thought it would be just a big adventure, but it turned out to be much more than that.
P I see. Well anyway as I was saying your options depend on what your priorities are, and on exactly what you want to study.
S Uh like I said, Navajo culture?
P Well let's see if we can be more specific. If you wanna study the Navajo language, learn about their religion, their history, that's part of cultural anthropology.

TPO 36 C1 Script

S No, I really don't want to change majors at this point. I love Sociology, and I really wanna graduate in four years.
P Okay now I see what your priorities are. So, from a sociological perspective, since you're interested in education, you can stay with that. Change your research topic to the Native American experience with public education, the effect it's had. And you can take sociology courses on religion or the role of minorities in society. Again, focusing your research on the Navajo.
S Hmm, I hadn't thought about that angle. Sounds intriguing. And all the courses I've already taken would still count toward my degree?
P I'd have to check. And we might need to plan carefully, to make sure all your degree requirements are met, but I don't see any problems.
S Great. And then I can pick up the language and culture courses as electives.

TPO 36 L1 Questions

1. What is the lecture mainly about?
(A) The role of fossil fuels as an energy source in the future
(B) Reasons for research into alternative energy sources
(C) The feasibility of using a potential energy source
(D) Causes of probable future energy problems

2. Why does the professor mention that the Moon lacks a magnetic field?
(A) To point out the dangers inherent in mining for helium-3 on the Moon
(B) To point out a flaw in the theory that helium-3 can be found on the Moon's surface
(C) To explain why it was difficult for astronauts to detect helium-3 on the Moon
(D) To explain why it is likely that there are large amounts of helium-3 on the Moon

3. According to the professor, what potential advantages does helium-3 have as an energy source?
Click on 2 answers.
[A] A relatively small amount of it may provide very large amounts of energy.
[B] It is less likely to cause environmental problems than other energy sources are.
[C] It can be used in both nuclear fusion and nuclear fission reactors.
[D] The infrastructure required for it to be used as a fuel source is not complex

4. What is the professor's opinion of the potential of helium-3 as an energy source?
(A) Mining helium-3 on the Moon will eventually be easy.
(B) Continuing to extract helium-3 from the Moon is not worthwhile.
(C) Helium-3 will probably be a significant energy source within a few years.
(D) Using helium-3 on a large scale will not be practical until nuclear fusion reactors are built

5. Why does the professor mention digging a crater to find gold?
(A) To explain why many scientists are interested in new missions to the Moon
(B) To explain why helium-4 is more common on Earth than helium-3
(C) To explain why extracting helium-3 from lunar soil may not be practical
(D) To explain why scientists have looked for helium-3 in unusual places

6. What does the professor mean when he says this:

訊號字 訊號字＋重點 重點 重點但重複不講

P Now, last week when we discussed the serious energy challenges we're going to face as the world's population continues to grow, and we place more stress on our finite supply of fossil fuels, especially natural gas and oil, well maybe it's not all doom and gloom. In a number of areas, scientists are thinking outside the box and trying to come up with unusual and novel solutions to the energy question. Not that the positive outcome is inevitable by any means, but, well, let's take a look at one of these creative ideas, involving the gas, helium-3.

Helium-3 is an isotope of helium that has tremendous potential for use in practical energy applications. Remember, uh an isotope is a form of a chemical element that has the same number of protons in its atomic nucleus, but a different number of neutrons. The most common isotope of helium on Earth is helium-4, which does not have any known or potential uses as an energy source. Helium-3 in comparison is extremely rare. There isn't very much of it on earth plus the uh, well the main source of helium three in our solar system is solar wind, a stream of lethal radiation and particles pouring off of the sun. And Earth's magnetic field fortunately prevents that wind from reaching us.

So why is helium-3 so exciting? Well, it seems a sure bet that helium-3 is available in abundant quantities on the moon. Since the moon doesn't have a magnetic field, the solar wind must've been depositing helium-3 there for billions of years. In fact, Apollo astronauts have already discovered it in the moon's dust. Some estimates hold that there may be over a million tons of helium-3 buried on the lunar surface. And one ton is more than enough energy for a city of 10 million people for a whole year. So you can see this would certainly solve most of our energy problems.

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TPO 36 L1 Script

But how could this be possible? Well, we think helium-3 would have to be used in nuclear fusion reactors. Keep in mind that the nuclear fusion reactor is completely different from our existing nuclear fission reactors. Basically a nuclear plant powered by nuclear fission, derives its energy from the splitting of atoms, while a plant based on nuclear fusion, utilizes the energy produced when atoms are fused together. Fusion is the same nuclear reaction that fuels stars, which as you know produce almost unfathomable amounts of energy. Researchers have identified two isotopes of hydrogen as the most promising fuel sources for fusion power plants. However, there's a real drawback. They both produce a large amount of radioactive material in the fusion reaction. But helium-3 fusion produces no radioactive material. In fact, one proponent stated, you could safely build a helium three power plant in the middle of the city. A clean safe source of power, almost sounds too good to be true doesn't it?

fathom: think

Well of course this is all very theoretical, and there are issues that have to be addressed. For one thing, we still haven't created a single nuclear fusion plant, despite decades of research and development. And I often heard joke about fusion is that the nuclear fusion plant has been just decades away from being created for several decades now. Nuclear fusion research is still ongoing, as strong as ever in fact, but we still don't have a full-scale fusion plant to point to.

And there's a rather big logistical problem as well, how to get the helium three off the moon. Digging the stuff up is challenging because the distribution of helium-3 is so diffused across the lunar surface. One estimate is that you'd need to heat a million tons of lunar soil to about 800°C to yield about 70 tons of helium-3 gas. It's kind of like digging out a crater with a spoon to find a single nugget of gold, kind of ridiculous, right? Uh there's a camp that believes it will take more energy to extract helium-3 gas than the gas itself would provide.

So there are concerns but, given the lure of the possibilities and the pressing nature of our energy difficulties, it's possible that helium-3 could be a significant driver of future exploration of the moon. And it certainly could ease the pressure on the demand for fossil fuels, if and when the numerous challenges, and not just the ones we've talked about, are solved.

TPO 36 L2 Questions

1. What is the lecture mainly about?
(A) The history of Mayan culture in Central America
(B) A new study comparing field-research methods used in Guatemala
(C) A new approach to archaeological research
(D) Sites where important ancient Mayan art has been discovered

2. According to the professor, what is the most significant aspect of the mural that William Saturno found near San Bartolo, Guatemala?
(A) It includes writing as well as human figures.
(B) It is very old but still in excellent condition.
(C) It was painted on limestone.
(D) It corrects a mistaken belief about Mayan culture.

3. Why does the professor mention roads and canals?
(A) To describe the difficulties of hiking in the rain forest
(B) To indicate the kind of ruins initially revealed by the infrared images
(C) To point out what Saturno was initially searching for
(D) To emphasize recent improvements in transportation near San Bartolo

4. After Saturno found the pyramid temple near San Bartolo, what guided his search for other ancient Mayan sites?
(A) His theory about why the ancient Mayan civilization disappeared
(B) Clues found in the ancient writing at the pyramid temple
(C) Information from people who live in the region
(D) The location of light-colored spots in satellite photos

5. Why does the professor mention limestone?
(A) To support a theory about why most Mayan structures are well preserved
(B) To point out a difference between Mayan structures in Guatemala and those in other areas
(C) To suggest a reason why certain vegetation stands out on infrared images
(D) To explain why it is difficult to locate ancient buildings in jungles

6. Why does the professor say this:

P Sure, sometimes we do just stumble onto an important find when doing field research. But usually we've got at least a vague idea of where to look, and with new technology… Okay, here's a story that illustrates what I mean. It's about the Mayans, who as you remember flourished in Central America, and had a culture that was quite advanced in art, architecture, astronomy… We know that despite regular droughts and poor soil, their numbers grew into the millions over the centuries, until about 1200 years ago, when their entire civilization just to seem to disappear and we're not sure why.

Okay, so an archaeologist named William Saturno, goes looking for ancient Mayan ruins in Guatemala near a town called San Bartolo and after several days of extremely difficult hiking through the thick rainforest, Saturno stopped to rest in the shade, and finds himself sitting in what turns out to be an ancient Mayan temple, a pyramid 25 meters high! And inside on the walls of this temple, Saturno finds some ancient writing, and also this enormous mural with elegant figures, depicting a Mayan myth of the creation of the world. And it's all painted on plaster that's over 2000 years old, which makes it the oldest Mayan artwork ever found, at least in good condition. And in fact one of the most perfectly preserved, and extremely important find.

S Wow, do you have a picture of it?

P Now, hang on, I don't. There's a point I want to make here. It happens that someone at NASA, the United States space agency, reads about the tennis discovery and gets very excited because the space agency has just produced some images of this area, using a technique called remote sensing. That's when instruments on planes and satellite survey areas on the ground. And the newest twist on remote sensing, quite new, is infrared imaging. Instead of taking regular photographs, the satellite cameras take pictures using infrared light, which is invisible to the human eye. But computers can then process these images, so our eyes can see them.

Using infrared imaging, the satellite-based remote sensing instruments revealed what turned out to be traces of water storage systems and canals! Canals that the Mayans built, to irrigate their parched soil, which helps explain how the Mayans could feed such a large population. The infrared images also revealed ancient roadways that had tied Mayan cities together. So people at the space agency figured Saturno would be interested, and they send him this infrared image of the area near San Bartolo, where the pyramid temple was found.

TPO 36 L2 Script

Now this is a false color image based on an infrared photo, so the greens of the jungle are shown mostly as blue and red. But notice also the spots of greenish yellow scattered here and there. These indicate significant discoloration in the vegetation, at least as it appears to infrared cameras. And Saturno notices that some of that discoloration's located in exactly the spot where he found the pyramid temple. So he figures, hey maybe some of those other yellow spots are worth investigating. Well, long story short, he checks out three different spots where the photo shows a discoloration and finds an ancient Mayan site, overgrown with vegetation at every single one. Further exploration shows a perfect correlation between yellow spots on the infrared image, and Mayan ruins hidden in the jungle.

S So what caused the spots to look different?

P Well, Saturno believes the limestone and line plasters that the Mayans used to build their structures, over time, uh this limestone decayed and seeped into the soil and changed the soils' chemistry. Then calcium carbonate from the decaying lime plaster might have been taken up by the roots of the trees growing there, uh up into their leaves and made them give off infrared light much more brightly than the surrounding vegetation. And infrared sensing technology can detect this.

S So, like is Guatemala the only place where archaeologists have used remote sensing?

P No, this technique's been used in other parts of Central America too, and also in Brazil, Bolivia, Cambodia… It can be used anywhere the rainforest has obscured ancient ruins. And the results can be amazing like another Mayan Temple that Saturno found thanks to remote sensing. He'd walked right by it every day for five years and had no idea it was there, until he saw an infrared image of the area.

TPO 36 L3 Questions

1. What is the lecture mainly about?
(A) Trends in housing designs in United States cities in the 1940s.
(B) The spread of the Levittown model across the United States.
(C) Ways that a building company met a demand for affordable housing.
(D) The importance of floor plans in meeting the needs of people.

2. What feature of the Cape Cod house made it attractive for young families?
(A) A living room that could be divided into bedrooms.
(B) Attic space that could be transformed into rooms.
(C) A backyard that was extremely spacious.
(D) A plumbing system that could easily be extended

3. Why does the professor discuss the living room window of the ranch house?
(A) To explain that it helped families save money on heating costs.
(B) To point out that it helped families focus on their private lives.
(C) To compare it to the picture window in the Cape Cod house.
(D) To point out that it provided a view of the street in front of the house.

4. What enabled Levitt &Sons to build houses economically?
Click on 2 answers
(A) They were able to create new designs very quickly
(B) They used the same materials for every house.
(C) They constructed houses near large cities.
(D) They trained workers to perform specialized tasks.

5. What was a result of the building methods used to construct Levittown?
(A) Similar towns were formed in other areas.
(B) Housing developments took a long time to complete.
(C) Levitt Sons became known for their artistic vision.
(D) Housing became less affordable in the 1950s.

6. What can be inferred about the professor when he says this:

TPO 36 L3 Script

P Alright, in our last class we began our discussion of housing designs in the United States from the 1940's. You'll remember, for example, that we looked at some photos and discussed apartment complex in Chicago from that decade.

Now, today, let's talk about housing design in the suburbs. The demand for low-cost housing outside the cities increased in the late 1940's after World War II as a whole generation of young families needed affordable housing, and a firm called Levitt & Sons strove to meet this demand in some pretty innovative ways.

They designed buildings based on the demands of the public, not so much their own artistic vision, and created a residential community in the state of New York that became known as Levittown.

Levittown was the first suburb of its kind and it started out with 2,000 homes. They were called "Cape Cod houses", the "Cape Cod model", and they were designed to look like the historical cottages in the New England states in the northeastern United States.

The original floor plan was very simple. The living room was in the front of the house with windows looking out towards the street. You also had two bedrooms, um, a bathroom and a kitchen. Everything was on one floor. The bathroom was right next to the kitchen, which was a way of keeping building costs down since the two rooms could rely on just one plumbing system.

Another feature of this Cape Cod house is that it could be expanded as families grew and needed more space. You had the downstairs but up the stairs the house actually had unfinished attic space as well. Levitt & Sons promoted their houses saying this attic space could easily be converted into another bedroom or even two, and then there was always the possibility of building additional rooms onto the house later.

Each house was built the same way and with the same materials. All parts were standardized so houses could be built economically. This was important because it meant that they were affordable for young families who wanted to live outside of the city. As a result, what you had was a whole community of houses that, except for the color of their roof and walls, were identical. So eventually there's going to be a demand for some variety, right?

TPO 36 L3 Script

After a couple of years, Levitt & Sons came up with a second design. Well, they called it a second design because it had a slightly different roof. Plus, the exterior had a more modern look.

This model was called a ranch house.

Now, I'm guessing it wasn't too expensive or time-consuming for Levitt to come up with this idea, but it was certainly efficient and hugely popular with families. The Ranch is like the Cape Cod except that the living room is in the back of the house instead of the front, and on this Ranch model there is one more important feature that is not present in the Cape Cod. It has a large window in the living room called a "picture window", which gives you a kind of "framed view" of the outside. The way the Ranch is set up when you look out this picture window from the living room you're looking out from the back of the house instead of from the front. Parents could watch the children playing in the backyard, the grassy area behind the house rather than a view of the street. So here was a way for families to disconnect their home, their house, their private lives from the outside world, which was represented by the street that led to work and school, which really seems like the thing they had been looking for all along, but the floor plan was just like the Cape Cod only, you know, turned 90 degrees.

Levitt & Sons offered their ranch houses for sales at a low price. They could do that because they were using the simple and therefore cost-saving building methods. Another way they kept construction prices down was to train workers who went from house to house doing a specific task, sort of like an assembly line. For example, you might have a painter whose job was to paint the doors of each house and then it would be someone else's job to install the doors. This way houses went up quickly, saving time and money. And the Levitt's ideas caught on. In the early 1950's, their designs became a model for suburb construction throughout the country.

TPO 36 L4 Questions

1. What is the main purpose of the lecture?
(A) To explain why a species of warbler might become extinct.
(B) To discuss the evidence that led Gause to formulate his hypothesis.
(C) To examine a hypothesis about what happens when species compete.
(D) To identify factors that allow some species to dominate others.

2. According to Gause's hypothesis, what happens when two similar species compete for limited resources in the same habitat?
(A) Both species will develop new nutritional requirements.
(B) Both species will change their behaviors.
(C) One of the species will eliminate the other from the habitat.
(D) One of the species will spread into a new habitat.

3. How do the five species of warbler described by the professor manage to coexist?
Click on 2 answers
(A) By using different materials to build their nests.
(B) By feeding in different sections of the tree.
(C) By eating different kinds of insects.
(D) By breeding at different times of the year

4. What is the professor's opinion about Gause's hypothesis?
(A) She thinks that it has not been disproved
(B) She thinks it is contradicted by basic laboratory experiments.
(C) She thinks that it cannot be adequately investigated
(D) She believes that it is contradicted by the competitive exclusion principle.

5. What does the professor imply about the relationship between an organism's niche and its habitat?
(A) An organism's niche is exactly the same as its habitat.
(B) An organism's niche is only partly defined by its habitat.
(C) An organism's habitat is almost always more complex than its niche.
(D) An organism can change its habitat but cannot change its niche.

6. Why does the professor says this:

P OK. Back in the 1930's, a biologist named G.F. Gause first proposed what's known as "Gause's hypothesis".

Gause said that whenever you've got two similar species competing for the exact same limited resources, one of them will have some sort of advantage, however slight that'll eventually enable this species to dominate and ultimately exclude the other one, even cause it to become extinct. That's why Gause's hypothesis came to be called "The competitive exclusion principle".

Gause did some lab experiments like placing two Paramecium species in the same environment where they would have to compete for the same food. He found that, over time, one species was consistently able to drive out the other, to eliminate it from the habitat, just as his hypothesis predicted.

Now, one of the early criticisms of Gause's hypothesis was that: "sure, it works in simple lab experiments where you have just two competing species in a controlled environment, but the hypothesis falls apart when applied to natural ecosystems where things are more complex".

Now, it's true that in the real world there are lots of examples that seem to contradict the hypothesis. For example, in the forest of New England, in the northeastern United States, there are some small songbirds called wobblers and right in the same area you've got five species of wobbler, all about the same size and all having similar diets of insects, uh, insects that are found on and around trees. Yet, these five wobbler species all managed to coexist. There is no dominance, no exclusion of one species by another.

How is this possible?

Well, turns out that one wobbler species feeds in the uppermost branches, while others favor the middle branches and others feed toward the bottom of the tree. Also, each wobbler species breeds at a different time of year. This way the period of peak food requirement, um, when the birds are feeding their chicks, varies from one species to the next.

Yes, Mark?

S1 But does that really contradict Gause's hypothesis? Because, I mean, are those different wobbler species really competing for the same food? I don't think so. I think they're more like, you know, almost cooperating so that they don't have to compete.

TPO 36 L4 Script

P Excellent! To the casual observer, the wobblers do seem to contradict Gause's hypothesis since they all live in the same place and eat the same types of insects.

But if you observe these birds more closely, the wobbler species are not really competing with one another for the exact same food at the exact same time, which brings us to a really important concept in ecology: the niche.

Mark, can you tell us what an ecological niche is?

S1 The place where the plant or animal lives, you know, its habitat.

P For example?

S1 Like the polar bear living in the Arctic on the ice sheet. The Arctic is its niche, the habitat it's adapted to survive in.

P Okay. That's what most people think of.

But for biologists, the concept of a niche also includes the way an organism functions in its habitat, how it interacts with other plant and animal species, with the soil, the air, the water and so on.

Okay. Now let's put it all together.

If you have two similar species competing in the same niche, what's going to happen? Susan?

S2 One will dominate the other and eventually eliminate it.

P Okay. So what could the weaker species do to improve its chances of survival?

S2 Maybe just move to some other area, you know, away from the competitor.

P That's one possibility. But think of the scientific definition of a niche. Think about the wobblers. Mark?

S1 Maybe it could find some new way of functioning in its habitat so that it wouldn't have to compete with the dominant species. Keep the same habitat but not the exact same niche.

P Yes, and there are many ways to do that. The dominant species feeds in one part of the tree and you feed in another.

S2 If the dominant species needs a lot of water you develop the ability to survive on very little water.

P You survive on what's left over: water, food, nesting or breeding sites, whatever.

Speaking

4 tasks, 16 minutes

Task 1	**Personal Opinion** You will be asked to give your opinion about a familiar topic.	Preparation Time: 15 sec. Response Time: 45 sec.
Task 2	**Campus Situation** Read a passage (75–100 words) presenting a campus-related issue. A conversation (60–80 sec., 150–180 words) comments on the issue in the reading passage.	Reading Time: 45 or 50 sec. Preparation Time: 30 sec. Response Time: 60 sec.
Task 3	**Academic Topic** Read a passage (75–100 words) on an academic subject such as a term or a concept. A lecture (60–90 sec., 150–220 words) elaborates on the reading passage.	Reading Time: 45 or 50 sec. Preparation Time: 30 sec. Response Time: 60 sec.
Task 4	**Academic Topic** Listen to a lecture (90–120 sec., 230–280 words) on an academic subject.	Preparation Time: 20 sec. Response Time: 60 sec.

Choice-Supportive Bias

People often make decisions by considering the advantages and disadvantages of each option. However, after a person selects an option, there is a tendency for that person to exhibit the choice-supportive bias. After selecting an option, a person may begin to favor that option. Without being fully aware of it, people who exhibit this bias tend to focus on and remember only the advantages of the option they selected. As time passes, they will overlook the option's disadvantages, eventually even forgetting them.

Question

Explain how the example from the professor's lecture illustrates the choice-supportive bias.

Lecture

OK. So an example of this from my own life. Five or six years ago, I was helping a friend of mine decide on a house to buy. He had been in the market to buy a house and he had it narrowed down to this one house that he was interested in. What he really liked about this house was, it had an excellent location. It was in a great place, that was actually in the same part of town where he was working, right up the street from his job so he wouldn’t have far to drive to get to work, which he really liked.

However, the downside of this house was, that it was smaller than what he was hoping to buy. He wanted to buy sort of a big house, and this house, just wasn't that big. So, it was a tough decision. But, my friend eventually did decide to buy the house. And a few years after he made the purchase, I remember, we were talking about the decision and why he decided to buy the house, he told me, well of course, it was because of the house's location. He told me how happy he was with the fact that it was so close to his work, how great it was that it was only few minutes to his job.

I said yes, but what about its size, do you still think the house was kind of small. And he looked at me, kind of surprised. "Small? What do you mean small?" Like he didn't know what I was talking about. The house's size, a couple of years after buying it, just didn't seem to be on his mind anymore.

Emotional Intelligence

We often think of human intelligence as the mental ability to analyze and understand complex ideas. However, many psychologists believe that there is a different type of intelligence called emotional intelligence. People with emotional intelligence have the ability to recognize their true feelings and understand what is causing them. This ability to understand their own feelings enables them to better control their emotional responses, changing or correcting them when necessary. Emotional intelligence helps people to behave appropriately in social situations, which allows them to maintain good relationships with others.

Question

Explain how the example from the lecture illustrates the concept of emotional intelligence.

Lecture

So here's an example. My daughter had a friend over to our house recently and they decided to watch a movie together, only they got into an argument because they couldn't agree on what movie to watch. My daughter started to get quite upset during the argument, which wasn't like her at all. But then my daughter stopped and thought about why she was so upset, she realized her reaction was inappropriate and she also realized she wasn't really upset with her friend. There was something else bothering her.

You see, she'd just gotten a summer job as a camp counselor for children and she was feeling a lot of worry and stress about how well she would do since she'd never worked with children before. So she figured out that she wasn't upset about what movie to watch with her friend, but about starting her new job. She really wanted it to go well. She wanted the kids to like her. And when she understood this, she stopped arguing with her friend and apologized to her. She told her friend how anxious she felt about starting the job and how sorry she was about getting upset with her. And her friend encouraged her saying she'd do great at the job, so my daughter felt better. And they relaxed and had fun together, the same as always.

Mental Accounting

Although they may not realize it, people do not always manage their money in responsible way. In their minds, people tend to divide their money into different categories as if they were putting it into separate mental bank accounts. This tendency is known as mental accounting. People mentally store some money in one account to be saved, while they imagine other money being stored in another account from which money can be taken and freely spent. Mental accounting can lead people to spend more money than they should, which can make it difficult for them to save enough money to achieve their long-term financial goals.

Question

Using the example from the professor's lecture, explain the concept of mental accounting.

Professor

So a good example of this is something that happened to me. When I was younger, I had an office job and I worked there every day during the week. And I made a regular salary from that. But also I worked as a waiter at a restaurant each weekend, so I made some money from doing that.

Now, around this time, I decided I wanted to buy a house. So every time I got my regular paycheck from my job at the office, I'd save as much of the money from it as I could after I bought the basic stuff I needed. But with the money I made as a waiter that was another story. Somehow I guess that money seemed separate from the money I earned at my regular job. So I used the money I made at the restaurant to go out to dinner, to buy videos or CDs, things I didn't really need.

But the thing is, it ended up taking me a really long time to save up all the money I needed to buy the house. And looking back now, I realize I could have bought the house a lot sooner if only I had saved more of the money I made working at the restaurant.

Carrying Capacity

An animal species needs to have enough resources, like food and water, to survive in any given environment. However, because resources are limited, only a certain number of animals of a particular species are able to survive in a given habitat. The greatest number a habitat can support is known as the carrying capacity. If nothing happens to disrupt or unbalance the relationship between the animal and its habitat, the carrying capacity will remain stable. However, a carrying capacity is not fixed. If there is a significant disruption, such as an environmental event that alters the amount of available resources in the habitat, the carrying capacity will change.

Question

Explain the concept of carrying capacity using the example of the moth and Ragwort.

Professor

OK, so let's talk about what happened to a certain type of insect, a moth, a red-and-black moth that lives in Europe. These moths eat a plant called Ragwort and they live in fields where the Ragwort plants grow. Now, there was a group of moth that lives in one of these fields and, for many years, there was a lot of Ragwort growing there. So the moth had plenty to eat and the total number of moth in the field stayed pretty much the same.

But then one year it rained a lot less than usual and the Ragwort didn't grow as well. The result was that the moth didn't get enough to eat and many didn't survive but even the ones that did survive didn't lay as many eggs as before. So that year the moth population in the field was quite a bit smaller. The next year, though, the amount of rainfall returned to normal and again many more Ragwort plants grew and, once again, there was a lot available for the moth to eat. So that year the moth population increased and the female moth laid many more eggs than the year before. And now, after all that rainfall and plant growth, there were just as many moth in the Ragwort field as there were before.

The Familiarity Principle

People tend to develop a preference for things they have previously encountered, things they are familiar with. Social psychologists refer to this tendency as the familiarity principle. Given a choice between two similar items, one they have experienced before and another that is new, most people will choose the familiar item. This principle operates even when people are not conscious of their previous experience with an item. Once people have been exposed to an item----even if they do not recall having been exposed to it----they will tend to prefer that item over other items to which they have not been previously exposed.

Question

Explain how the experiment described by the professor illustrates the familiarity principle.

Lecture

Some researchers did an experiment related to this. What they did was—they assembled a group of subjects, a group of students and they showed the students a series of geometrical shapes. These were very distinctive shapes, a little unusual, not the kind of shapes the students often see. But they only showed the students the shapes for a very short period of time--about a second, they also lowered the light in the room to make it even more difficult to for the students to see the shapes, so the shapes were there for a split second in dim light and then they were gone.

In the next step of the experiment, the researchers again showed the students some shapes, but this time they gave the students a longer time to look at them, and this time they showed images in pairs--two at a time, in each pair, one shape was a shape the students had already seen, for just a split second in dim light, and the other was some other the shapes that hadn't been shown to them before. After presenting each pair, the researchers asked the students to say which of the two shapes they liked better. Most of the time, the students prefer the shape they already seen earlier in the experiment. Now if you ask them if they have already seen the shape they probably wouldn't know for sure. But that didn't matter they still tended to prefer the shapes they already seen.

Integrated Farming

Many farmers keep animals and raise crops at the same time. While some farmers treat the cultivation of their animals and plants as two separate activities, others integrate the two so that they work together. This is called integrated farming. Integrated farming uses the natural behavior of animals in a way that helps to keep both animals and crops healthy and thriving. By integrating a particular animal with a specific crop, farmers create a system in which both animals and plants provide for each other's needs.

Question

Explain how the example from the lecture illustrates the concept of integrated farming.

Lecture

Okay, so an example of this is when chickens are used to prepare a field for planting. Farmers who do this have a special kind of little house that they keep their chickens in. This little house has four walls and a roof but it doesn't have any floor. And it has wheels attached to it so it can easily be moved from one location to another. So, farmers move this little house to a field where something is going to be planted, say bean plants. And then the chickens are placed inside the house.

Now, remember there's no floor in this house. And what the chickens do is, they walk around inside the house, and peck at the soil, and eat any weeds or wild plants that they find. And then when the chickens are done eating the weeds in that location, the farmers move the house to the next section of the field. And again, the chickens peck at the soil, and eat the weeds. So the chickens get to eat lots of weeds, which are good for them.

Now this activity is also good for the bean plants that'll be growing in the field. Because, when the chickens eat the weeds, they're improving the quality of the soil. Thanks to the chickens, when the bean plants start to grow, there won't be any weeds there to compete with them for crucial resources, like sunlight or water.