

CD 1, Track 7

Chapter 1: Listening

Pheromones

Narrator: Listen to a lecture in a biochemistry class. The professor is discussing pheromones.

Professor: Okay. So, how's everybody doing today? All right, good. Let's get started. So... this morning, we'll be discussing pheromones...chemical messages sent from one organism to another. What kind of messages? Well, the first pheromones discovered were more like... chemical love letters...a method used by female silkworm moths to attract mates. The female basically sends out a signal that tells the male she is ready to mate. And these signals can be quite strong. In fact, scientists now know that many females of the butterfly and moth species release pheromones that males within a 10 kilometer radius can pick up on. Now, that's some kind of powerful communication device!

So how do these pheromones work? Well, they can be either scented or odorless and all types of animals detect them through what is called the VNO, an organ that is part of the olfactory system, which is related to the sense of smell. And once detected, the VNO sends the chemical message to receptor neurons in the brain. And this causes some sort of reaction or response on the part of the animal.

Now, while it's true that pheromone communication is well-documented in the animal kingdom, does it apply to humans and human mating behavior? Well, a number of researchers are coming up with evidence that this may in fact be the case. Interestingly, the strong feelings associated with romantic love may be in some part linked to pheromones. It seems that females can pick up on male pheromones that identify gene composition in male body odor. Now, in order to produce the strongest offspring, it is important to choose a mate with a different genetic makeup. This is because different genes are good at attacking different invaders such as bacteria or viruses. Therefore, a newborn with a greater variety of genes has a better chance at fighting off disease. So, women somehow can sense through pheromone communication which male will provide her children with the best immune systems. And this, of course, this improves her children's chances of survival.

So ladies...the next time you think you love him for his good looks or his winning personality, think again. Instead, it may have everything to do with your nose and the way he smells—ew!

CD 1, Track 8

Narrator: Listen again to part of the lecture.

Professor: What kind of messages? Well, the first pheromones discovered were more like... chemical love letters...a method used by female silkworm moths to attract mates. The female basically sends out a signal that tells the male she is ready to mate.

Narrator: Why does the professor say this?

Professor: Well, the first pheromones discovered were more like...chemical love letters...

Chapter 1, Track 9

Chapter 1: Listening

Conversation

Narrator: Listen to a student talking to his professor.

Student: Uh, hi professor. Can I talk to you for a minute?

Professor: Sure, what's up?

Student: Well, I noticed on the course outline, that you have a midterm scheduled for March 8th, but, the thing is that I'm going to have to be away that day.

Professor: Away?

Student: Yeah, yeah. I'm flying to England to get married, actually.

Professor: Oh, I see. Well, congratulations.

Student: Thanks. So I'm going to be away from the 7th to the 14th and I won't be here for exam day. Is there any way I could write the exam before I leave—maybe on the 5th or the 6th?

Professor: No, I'm sorry, but there's a university policy against giving the same exam at different times because it jeopardizes the exam's validity. We've had issues with students sharing questions, if you know what I mean.

Student: Oh, yeah, sure. I understand completely. What about, I mean... would you consider an additional research paper in place of the midterm?

Professor: Well, I really don't think that a research paper could take the place of an exam on all of the content that we've covered in class, do you?

Student: Well, I guess not. Maybe I could do a summary of the course content up to that point. Do you think that might be an acceptable solution?

Professor: Well, I suppose, yeah that that might be acceptable. Of course, I would grade you on the quality of your summary and I'd expect a full integration of class lectures with the appropriate textbook chapters as well as handouts and supplementary readings. And you'd have to extract the relevant points from all sources and present them in some sort of coherent order—a summary though, no more than fifteen pages.

Student: Of course. And, and for me, I do believe it would be a totally useful exercise.

Professor: Oh and one more thing, I think it would be best if you complete the work before you leave. How does that sound?

Student: That sounds reasonable.

Professor: All right, then. It's settled. So, you'll write me a full summary of all course content including lectures and textbook coverage for the first half of the term and I also expect that you integrate the sources and give me an analysis of what you feel to be the most relevant points.

Student: Of course, professor.

Professor: Yes, and congratulations again. With all the excitement, I hope this won't distract you from your studies.

Student: No, I'm totally on top of it. Thanks again, professor.

CD 1, Track 10

Narrator: Listen again to part of the conversation.

Professor: No, I'm sorry but there's a university policy against giving the same exam at different times because it jeopardizes the exam's validity. We've had issues with students sharing questions, if you know what I mean.

Narrator: What does the professor imply when she says this?

Professor: We've had issues with students sharing questions, if you know what I mean.

CD 1, Track 11

Chapter 1: Listening
Emperor Penguins

Narrator: Listen to a part of a discussion in an ornithology class. The class is discussing emperor penguins.

Professor: All right. So our next topic on the agenda is the parenting habits of emperor penguins. I'm sure you've all seen the award-winning documentary. It's called *March of the Penguins*, and it does a superb job at following the reproductive cycle of these Antarctic birds. So if you've seen it, I hope you won't mind offering your input.

Now, there're a number of reasons why the emperor penguin is interesting in terms of parental habits. Can anyone give me one?

Student 1: Well for me, I mean, what I find interesting is that the males play a major role in nurturing their offspring. For instance, as soon as the female lays the egg, the first thing she does is pass it to her partner who takes full responsibility for sheltering and protecting this egg for the next three months. The female, meanwhile, exhausted from giving birth, immediately takes off on something like a hundred-mile trek to the sea where she forages for food and rebuilds her

strength. And then the male—it's his job to keep the egg warm, at something like 95 degrees Fahrenheit, in his breeding pouch, just above his feet until it is ready to hatch. It's really cute to watch how carefully the males waddle around, trying to keep those eggs safe from harm. And they're careful for a reason; exposure to the sub-zero temperatures of the Antarctic would mean almost certain death for the unborn chick.

Professor: Okay, so climate—and, how do the males manage as they care for the eggs?

Student 2: Well, by this time...we're talking the dead of winter, with massive storms and winds gusting over 100 miles an hour and temperatures—they get as low as negative 130 degrees Fahrenheit. So, to offset the elements, the males get together in a huddle, like some kind of football team, to protect themselves and their eggs from the bitter cold. And to make matters worse, they have to go without food—they've got absolutely nothing to eat—until their mates return in about three months' time.

Professor: So let's move on to when the female returns. What happens then?

Student 3: Well, she immediately takes over the nurturing responsibilities—feeding and protecting the newly hatched chick—so that the male can get back to the sea and to some food. The thing is that by this time, he's lost over half his body weight. So some males, especially the older ones, do not survive the journey.

Professor: That's right, and this brings me to an interesting lesson the emperor penguins can teach us. I mean think of it, these birds undergo extreme hardships to successfully bring new life into the world. I mean, it's off-the-charts adversity. And to witness this hardship, it brings your own life into perspective somehow. Your problems seem almost insignificant when you compare them to what the emperor penguins have to go through. I mean, they have to suffer the freezing cold...go without food for months on end...and travel hundreds of miles, for the most part on foot...all in order to produce and protect a single egg. So, the next time you catch yourself complaining about mid-terms and finals, think for a moment about the emperor penguin, and count yourself lucky.

CD 1, Track 12

Narrator: Listen again to part of the lecture.

Student 2: Well, by this time...we're talking the dead of winter, with massive storms and winds gusting over 100 miles an hour and temperatures—they get as low as negative 130 degrees Fahrenheit. So to offset the elements, the males get together in a huddle, like some kind of football team, to protect themselves and their eggs from the bitter cold. And to make matters worse, they have to go without food—they've got absolutely nothing to eat—until their mates return in about three months' time.

Narrator: Why does the student say this?

Student 2: And to make matters worse, they have to go without food—they've got absolutely nothing to eat—until their mates return in about three months' time.

CD 1, Track 13

Chapter 1: Listening

Family Business

Narrator: Listen to part of a lecture in a business class.

Professor: All right. So this afternoon, we're going to be looking at the family business, which is THE dominant global business structure. In fact, 95 percent of businesses in the US are currently family-owned. And between 65 and 82 percent of Asian countries' Gross National Product comes from these family-owned firms. We even see them in the corporate sector with big players like Samsung, Wal-Mart, Ford, Kikkoman (the soy sauce, right?), Mars, and Levi's.

What are the advantages? I mean, why are so many people drawn to this type of business operation? Well, first of all, for the original entrepreneur, it's the satisfaction of seeing your own ideas succeed. And then of course, there is the freedom, the flexibility in setting your own hours, independent decision-making, and the idea of being your own boss. There's some element of control...being in control of your own destiny. That's got to be the prime motivator for the upstart of all entrepreneurial ventures.

But as the business grows and members of the family get involved, what are the benefits for them? Well, the major difference between working in a family business versus working for a company seems to be a sense of belonging. And this sense of belonging, along with a common purpose, can turn into a real competitive advantage. Why?

Number one, employees are more committed because they have a stake in the business. To them, it matters whether or not the business succeeds or fails. And, as a result, they tend to devote more time and energy to their jobs than your average employee because the benefits go way beyond a simple paycheck. For example, there's family pride. Everyone cares more about their performance. They put more into it because it reflects upon the entire family.

Second, the family business is highly flexible. For instance, when the business is in financial need, let's say they want to put money into developing a new product line... payment to workers can be put off until the company can afford it. Everyone understands that in the long term, financial sacrifices will pay off.

Third, because decision-making is usually limited to one or two key people, the family business can make quick decisions. Public companies, on the other hand, could never pull this off with their bureaucracy, their committees, their consultants, and their boards. And in business... quick decisions often mean bigger profits.

Number four, the family-owned business is very stable, with very few changes in personnel. And this makes it very reliable. Customers prefer to do business with a company where they know the people, where they have established relationships. And with this personal touch, the staff comes across as friendlier and more willing to go the extra mile. And this offers the client a higher standard of customer service.

All right, so I see our time is almost up and we haven't gotten to the disadvantages—any ideas?

Student 1: Um, longstanding interpersonal conflicts, like sibling rivalry.

Professor: Yes.

Student 2: Uh, passing on the business—who will take over?

Professor: That would be called succession, and yes, that is a major issue.

Student 3: Competence of the employees, freeloaders, that kind of thing.

Professor: Definitely.

Student 1: In-laws.

Professor: For sure.

Student 2: Lack of consultation in decision-making.

Professor: Yes, another key factor, and as well disagreements about how the business should be run. Well, from your input, I can see some of you may be reading ahead in your textbooks. Great stuff!

CD 1, Track 14

Narrator: Listen again to part of the lecture.

Student 3: Competence of the employees, freeloaders, that kind of thing.

Narrator: What does the student imply about the employees?

CD 1, Track 15

Chapter 1: Listening

Genetics

Narrator: Listen to a lecture in a genetics class.

Professor: So today, I'm going to give you an introduction to genetics. We'll find out how physical and behavioral characteristics are passed on to the next generation. And we'll look at why you may resemble one parent more than the other.

So, how are traits passed on from one generation to the next? Well, first we need to understand chromosomes, DNA, and genes. First—chromosomes. So, inside the tiny nucleus of almost every cell in the human body, you will find two complete sets of 23 chromosomes. And each of these 46 chromosomes is made up of long strings of DNA that are tightly wrapped around

protein. And so genes are segments or portions of this DNA. If we were talking about size from large to small, the cell would be largest followed by nucleus, chromosomes, DNA, and then genes, which would be the smallest. And of course, genes are what determine specific inheritable traits such as hair color, height, or intelligence.

Now I said inside almost every cell includes two complete sets of 23 chromosomes. And this is where it gets interesting. The thing is that egg and sperm cells only contain ONE set of 23 chromosomes. So, when a sperm and egg join together at the moment of conception, the resulting zygote contains 23 chromosomes from the mother and 23 from the father. And so this is how we inherit exactly half our genes from our mothers and half from our fathers.

The thing is, though, that each sperm from the father and each egg from the mother is unique. This is because each egg and sperm cell contains a random subset of 23 chromosomes from a total set of 46. The fact is that each individual can produce eight million combinations of these 23 chromosomes. So, when two people conceive a child, there are seventy trillion different genetic makeups of zygote possible. This is what leads to differences between siblings and every individual's unique set of traits.

Now, even though you get exactly half of each of your parents' genes, let's look at why we may resemble one of them more than the other. So, you inherit one part or allele for each gene from each of your parents. Each of these alleles may be strong or weak—dominant or recessive. Certain alleles are inherently dominant or recessive. For example, when considering the alleles for hair and eye color, dark hair and brown eyes are dominant, whereas blonde hair and green eyes are recessive. So let's say your mother has dark hair and brown eyes while your father has blonde hair and green eyes. You are probably going to end up looking more like your mother because her genes are naturally dominant, whereas your father's are recessive.

And what about behavioral traits? Only a few decades ago, scientists believed that behavior was shaped by the environment. However, many behavioral traits are now thought to be at least in part genetically determined. For example, research has shown that intelligence, memory...novelty seeking or seeking out new experiences...activity level...shyness...and sociability are, to some extent, a product of genetics. And then other traits like musical and athletic ability seem to involve an even greater interplay between a person's genes and the environment.

CD 1, Track 16

Narrator: Listen again to part of the lecture.

Professor: However, many behavioral traits are now thought to be at least in part genetically determined. For example, research has shown that intelligence, memory...novelty seeking or seeking out new experiences...activity level...shyness...and sociability are to some extent a product of genetics.

Narrator: What does the professor believe about the influence of genetics on behavioral traits like intelligence and memory?

CD 1, Track 17

Chapter 1: Listening Test

Conversation

Narrator: Listen to a student talking to her advisor.

Advisor: Thanks for dropping by Brenda. What was it that you wanted to discuss?

Student: Well as you know, I'm studying for my Bachelor of Fine Arts in film, right?

Advisor: Yeah, how's that going?

Student: Oh, it's going great. I'm just loving it. The courses are all really interesting. I'm learning a lot, and it's really wonderful.

Advisor: Great. Glad to hear that...and so why are you here?

Student: Well what's happening is that I'm getting a lot of pressure from my family to take something more conservative you know, something that'll pay the bills. They tell me that I should work toward something like an Education degree, or maybe Business.

Advisor: I see.

Student: I mean, I paid the first semester tuition with, you know, earnings from my summer job, but I thought they would pick up the slack for next term, but no, they're not going to. They just don't seem to believe in what I'm doing, and at this point, I really don't know what I'm going to do. I mean, I never thought it would come to this.

Advisor: I'm sorry to hear about the difficulties you're having with your family right now. That must be very hard to deal with—the lack of support and all.

Student: Yeah, it brings me down, you know it really does, but I've got to say, it's my life, not theirs, and I have to do what I have to do or I just won't be happy, you know what I mean?

Advisor: I'm sure they just have your best interests at heart, Brenda...they want you to be financially stable. I'm sure that's what it all comes down to.

Student: I know. But I can make a lot of money in film. I mean, there's a lot of different avenues. I can edit, do camera work...start my own business. From what I've heard, the pay is quite high, once you get...established.

Advisor: I'm sure it is, but what are you going to do about tuition costs? You only have a couple of months until next semester, you know.

Student: I know. That's what I'm doing here. I really needed someone to talk to about this.

Advisor: Well, you can always get a student loan. And if your marks are high enough, you might even be able to get a grant or scholarship.

Student: Really! That sounds fabulous. What are the criteria?

Advisor: Well...I do know that the Hollywood Foreign Press Association provides scholarships based on academic achievement, creative and technical ability, and financial need. They also prefer foreign students so you do have an edge there.

Student: Sounds great. Do you have an application?

Advisor: Here's a brochure. You can apply online, actually. In the meantime, though, why don't you get down to the financial aid office ASAP and fill out a loan request.

Student: Yeah, unless I win the lottery, right?

Advisor: Right. Let me know how it goes.

Student: Thanks for your help. I'm really hoping this scholarship comes through for me.

CD 1, Track 18

Narrator: Listen again to part of the conversation.

Student: Oh, it's going great. I'm just loving it. The courses are all really interesting. I'm learning a lot, and it's really wonderful.

Narrator: How does the student feel about her life?

CD 1, Track 19

Chapter 1: Listening Test

Parenting, Part 1

Narrator: Listen to part of a lecture in a psychology class. The professor is discussing parenting styles.

Professor: Okay. So, today we'll be examining the four major types of parenting styles and outcomes for the child. And we'll focus on how these styles impact a child's self-esteem, social skills, and academic performance.

Now, key to understanding these styles are the concepts of responsiveness and demandingness. A responsive parent provides a large degree of parental nurturance including warmth, affection, support, and respect for the child as a person. A demanding parent sets limits so that the child learns to behave in a mature and responsible manner.

Okay. Now with this basic terminology out of the way, let's proceed with the four parenting approaches.

So, first there are permissive parents who let their children do whatever they please. These parents are responsive but not very demanding. They provide lots of warmth but set no limits. They're typically nontraditional and don't set rules or guidelines for the child to follow. We are talking about lenient parents who allow children to do their own thing and don't feel it's their place to interfere with their development.

Second, we have the authoritarian parent—the dictator: the “my way or the highway” type of parent. These parents are demanding but not responsive—a direct contrast to the permissive approach. Authoritarian parents demand that a child obey a clearly laid out set of rules, but do not offer much in the way of warmth and affection. They don't feel the need to offer explanations about the rules they impose and will not stand for a child who questions their authority. Punishments can be either physical or verbal and can even include psychological control tactics. We are talking about things like shaming the child, (“Bad boy”) making them feel guilty, (“You've upset mommy.”) or withdrawing love (“Go to your room”).

Third, there is the authoritative parent. These parents are both responsive and demanding. They offer a loving atmosphere and respect the child as a person. Limits are set but the reasons behind these limits are clearly explained so that the child can understand the “why” behind specific rules. Authoritative parents listen to their children and use positive reinforcement, reason, and warmth. There are no harsh punishments or control tactics.

Finally, we have the uninvolved parent. This parent is neither demanding nor responsive. The parent is simply not interested in the child or in parenting and displays little or no affection. There are no rules or standards of behavior. In severe cases, the parent rejects or neglects a child due to a preoccupation with work, mental health problems, immaturity, or substance abuse issues.

Now at this point, I would like to pause for a few minutes and let you think about the four parenting styles. What outcomes would you predict for children in these environments?

Let's consider several outcome variables:

- self-esteem and self-confidence
- social skills
- anxiety and depression
- academic performance
- deviant or anti-social behavior

I'll let you form your opinions. Maybe you can review your notes with a partner and discuss possible outcomes for children in each of the four types of homes. Then, after a short break we'll reconvene to find out if your predictions are valid.

CD 1, Track 20

Chapter 1: Listening Test

Parenting, Part 2

Narrator: Now listen to part two of the lecture on parenting styles.

Professor: All right. We're back. So which parent would you say would have the worst effect on his or her children?

Student 1: The uninvolved parent.

Professor: Yes, that's right. Research shows that these children have low self-esteem... poor social skills... a lot of anxiety and depression... poor academic performance, and evidence of deviant behavior... so, what about the authoritarian parent?

Student 2: Low self-esteem... poor social skills, anxiety and depression, and I'm not sure about the others.

Professor: Well, that's a good start. So as we can see, the low affect from the authoritarian parent does not help the child in terms of psychological or social development. Surprisingly, however, this child will typically do well in school and won't get into deviant behavior like gangs or drugs... and the permissive parent?

Student 1: The child will not do well in school?

Professor: That's correct. Not only that, but the lack of limits will also lead to deviant social behavior. And this child will tend to rebel if his or her ideas are challenged by an outside authority. What about psychological outcomes?

Student 2: Low self-esteem?

Professor: No. Surprisingly, this child will generally have a high level of self-esteem, low levels of anxiety and depression, and get along well with peers.

Student 2: Interesting!

Professor: Yes, and this seems to be due to the responsiveness of the parent. So, responsiveness brings positive psychosocial outcomes while demandingness delivers positive academic performance and social responsibility... So, with this information, I'm sure you'll be able to tell me the outcomes for a child with an authoritative parent.

Student 1: Positive across the board?

Professor: Correct. And also, the consistency of research, regardless of ethnicity, makes it clear that the authoritative style is the optimal choice for producing a happy, healthy, fully functioning adult.

CD 1, Track 21

Narrator: Listen again to part of the lecture.

Professor: Second, we have the authoritarian parent—the dictator: the “my way or the highway” type of parent.

Narrator: What is the professor’s attitude towards the authoritarian parent?