



ECPE Listening Resource Pack

July, 2021



Introduction

The ECPE Listening section targets a variety of skills that assess the ability to comprehend language used in real-life situations. The subskills include global listening skills (e.g., main idea), local listening skills (e.g., vocabulary/idiom, detail), and inferential listening skills (e.g., pragmatic implication, rhetorical function, draw conclusion, implied relationship between ideas). The listening section features three different parts and includes a total of 50 multiple-choice comprehension questions.

This activity pack for ECPE Listening practice can be used by prospective test takers preparing for the exam independently or by teachers designing lessons for their students. It includes examples of all three listening stimulus types that appear on the exam. In addition to sample test questions, there are extension activities designed for practicing the subskills needed for advanced listening.

- **Section 1** of this pack gives an overview of the item types in the ECPE Listening section. It also offers a list of specific activity types and related exercises that teachers can build on to practice general listening skills and to build confidence in advanced listening.
- Section 2 includes several sample ECPE Listening stimuli with exercises guiding test takers to focus on specific elements of what they hear. The practice materials in these activities are designed to build vocabulary and other local and global listening skills at the C2 level of the Common European Framework of Reference for Language without necessarily replicating the conditions or format of a listening test. For example, the exercises include open-ended questions and activities in addition to multiple-choice questions. There is a certain amount of repetition built in to reinforce skills. Listening involves a variety of subskills, and this resource is designed to help target the combination of skills needed for successful listening at the C2 level.
- The **appendix** includes the audio scripts and answer key.

Section 1

The ECPE Listening section

The ECPE Listening section consists of 50 questions across 3 parts and takes about 50 minutes.

- **Part 1**: 20 questions; short 2- or 3-speaker conversations with one question each. Test takers hear each conversation and question once.
- **Part 2**: 18 questions; monologues with 6 questions each Test takers hear each talk and the questions once.
- **Part 3**: 12 questions; 2 longer radio-style interviews, followed by 6 questions each Test takers hear each segment twice and the questions once.

The listening skills included on the test fall into three main categories: global, local, and inferential. Global skills relate to the listener's understanding of a conversation or talk as a whole. Local skills involve understanding supporting detail or vocabulary mentioned in a conversation or talk. Inferential skills ask listeners to think beyond what is explicitly stated in the conversation or talk and to draw conclusions, make predictions, or understand rhetorical function, for example.



Strategies for Developing Listening Skills

Developing advanced listening skills begins with finding a variety of authentic listening sources and using a range of techniques to help focus attention on their various elements. The following table of teaching and learning activity types provides a framework for focused listening practice. The strategies listed below encompass a wide range of listening activity types for use in classroom settings. The highlighted activities are represented in this pack. Notes on the other suggested activities are provided on the next page.

Strategy and Activities	Corresponding Test Sub-skills	Example Exercise
Listen and Answer Questions		
Factual: T/F, Yes/No, Wh-	Global, Local	A. 2, B. 4
Prediction/Inference	Inferential	A. 3, B. 7
Rhetorical function	Inferential	A. 3, B. 7
Cause/effect/reason	Inferential	A. 3, B. 7
Listen and Reply/Respond/Select		
Unfinished dialogue	Global	
Matching: two-column details	Local	
Identify context, speaker relationships, etc.	Global	A. 1
Listen and sort (e.g., general to specific; steps in sequence)	Global, Local	
Listen and Fill In		
*CLOZE (blanks in transcript)	Local	B. 6, C. 11
Details in a chart/graphic organizer	Local	
Partial outline with missing details	Local	
Partial outline with missing main ideas	Global	
Listen and Write		_
Write a text or email message	Global	B. 5
Write a title	Global	
Write a single-sentence summary	Global	
Write an outline, take notes	Local	
Write a response/reaction/opinion	Global,Inferential	
Listen and Retell (Describe)		_
Report back, in brief	Global	
Report details	Local	
Listen and Reenact/Expand (Role Play)		
Role play the same dialogue	Global, Local	
Re-create an alternate dialogue	Local, Global	
Vocabulary Development		
Matching, fill in the blank, free response	Local	C. 8, 9, 10



Comments and guidelines on selected activity types

These notes provide guidelines to develop listening activities for different purposes.

Listen and reply, respond, or select an answer

- good strategy for sets of shorter conversations or passages
- adds variation to comprehension questions
- unfinished dialogue: respond to a dialogue starter or question
- match two-column details: select appropriate description, activity, item, etc. corresponding to each speaker, day, time, cost, location, etc.
- · identify context, location, speaker relationships
- · sort activities, events, or facts in a meaningful order

Listen and fill in

- targets mainly local listening skills, e.g., vocabulary and details
- use a variety of scaffolded gap-fill activities, e.g., chart, graphic organizer, or outline with gaps

Listen and write

- appropriate to develop advanced listening skills and integration with writing skills
- · can target details, main ideas, or inferential sub-skills
- respond in writing to a passage; e.g., write a title, single sentence summary, or outline; take notes; write an opinion or free response

Listen and retell:

- report to someone orally about what they heard, emphasizing comprehension accuracy (details or main ideas)
- · appropriate for interactive activities in pairs, integrating listening and speaking

Listen and reenact/expand

- reenact or expand on a dialogue through oral role play
- · engages students interactively with peer listening

Listening



Section 2

Listening Part 1: Short Conversations

Exercise 1

To practice **listening for main idea**, listen to an example audio file. Then put a checkmark in the column to identify the setting or context where you think the conversation most likely takes place. In the Notes column, write any words or other clues that helped you decide.

Most Likely Setting		ng	Notes	Audio Files	
	Workplace	School	Public		
1					Example 1
2					Example 2
3					Example 3
4					Example 4
5					Example 5
6					Example 6
7					Example 7

Exercise 2

Listen to each dialogue again from Exercise 1 and write answers to the following questions to practice listening for details and inference.

1.	Why did the woman go to the radio station orientation?
2.	What was the woman hoping for with her coupon?
3.	When will they have the budget to upgrade their printer?
4.	Why does the man mention that he has some clothes to donate?
5.	What do the speakers think about the new office design?
6.	Why doesn't the woman want a ride home?
7.	What was the man planning for lunch?



Listen to each conversation from Exercise 1 again and answer multiple-choice sample ECPE questions. There is one question for each conversation.

Conversation 1

- 1. What will the woman probably do?
 - A. work at a radio station
 - B. begin a podcast on her own
 - C. take a class in the music department
 - D. find a new university club to join

Conversation 2

- 2. What does the man suggest the woman do?
 - A. bring her own cup
 - B. get a receipt
 - C. use a different coupon
 - D. order a larger size

Conversation 3

- 3. What are the speakers mainly discussing?
 - A. the next budget
 - B. the color brochures
 - C. an important meeting
 - D. new office equipment

Conversation 4

- 4. What is the money probably used for?
 - A. buying reusable bottles
 - B. supporting children's programs
 - C. planting trees
 - D. purchasing recycled paper

Conversation 5

- 5. Why does the woman mention some chairs?
 - A. to suggest she and the man sit down
 - B. to imply that she has work to do
 - C. to comment on their cost
 - D. to criticize their appearance

Conversation 6

- 6. What does the woman say about the choir?
 - A. She enjoys participating in it.
 - B. She is thinking of joining it.
 - C. Its schedule conflicts with the Environmental Club's.
 - D. It is going to perform later.

Conversation 7

- 7. Narrator: What will the man do next?
 - A. put his lunch in the drawer
 - B. look for his lunch
 - C. move someone's lunch
 - D. go out for lunch



Listening Part 2: Monologues

Listen to the host introducing a podcast. Click here to play the audio file.

Exercise 4

Answer the questions by circling T (true) or F (false).

1. The podcast hosts a similar show weekly	- 1	\vdash
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- 2. Mr. Sinclair is a well-known fiction author. T F
- 3. The hero of the current novel is a military officer. T F
- 4. The author is based in Vermont.

Exercise 5

Write a brief email to a friend you think may enjoy the book. The first line is provided; finish it with a brief summary of what you heard and why you think they would enjoy it.

, I just heard an interesting podcast about a book and thought of you. It was about	

Exercise 6

Listen to the podcast again. Answer the multiple choice questions.

- According to the speaker, what is true of both Matthew Sinclair and Kate Carter?
 - A. They were in the military.
 - B. They are writers.
 - C. They are detectives.
 - D. They were professional athletes.
- 2. What does the speaker imply about Kate Carter's future?
 - A. Her secret will be revealed.
 - B. There's going to be a movie about her.
 - C. More will be written about her.
 - D. She's going to get married.
- 3. What does the speaker imply about Matthew Sinclair's newest book?
 - A. She is excited to read it.
 - B. She received a copy of it early.
 - C. It was inspired by a person he knows.
 - D. Its release has been delayed.

- 4. What does the speaker imply she is going to ask Matthew Sinclair about?
 - A. his professional goals
 - B. his military experience
 - C. his writing process
 - D. his athletic background
- 5. What is the speaker's main purpose?
 - A. to endorse a product
 - B. to provoke a debate
 - C. to make an introduction
 - D. to present a book review
- 6. What does the speaker mean when she says:

Click to play the audio

- A. The bad guys think she wants to join them.
- B. The bad guys don't think she is a threat.
- C. The bad guys don't notice her presence.
- D. The bad guys fail to recognize her.



Cloze Activity: Listen to the audio of the podcast again. Fill in the blanks with the missing words or phrases.

W:	Hello and welcome to a new e	episode of Writers at	t Work, a podcast f	eaturing interv	views with some of	
	today's most	authors of fiction. I'n	n your host, Beth A	nn Jackson, cc	oming to you from	
	the studios of WBBC in Spring	gfield, Vermont. Eve	ry week, I have the		of talking with a	
	writer whose work I enjoy and	d want to share with	the world.			
	Today I'm delighted to welcom	me Matthew Sinclai	to the podcast. Mi	r. Sinclair write	es in several genres	;
	but is no doubt most widely k	known for his best-se	elling	_ of detective	novels, The Carter	
	Files, featuring private invest	igator Kate Carter. ⁻	The intrepid Ms. Ca	rter is a forme	er Olympic gymnas	t
	who uses her athleticism to h	ner	Time and again, sl	ne fools the ba	ıd guys into	
	underestimating her. Kate is	also a	U.S. Marine, who se	erved her time	in the military as	
	a police investigator, so she k	orings an impressive	skill set to her wor	k as a private (eye. Each book in	
	the series—there have been	six of them	—has plenty	of action, sus	pense, plot twists,	
	and, too. And	I'll let you all in on a	little secret: the ser	ries' latest entr	ry may not come o	u
	until next week, but I've alrea	ady read it, and I thir	nk it's the best one	yet.		
	Matthew Sinclair will be spea	ıking with us today f	rom his home in so	uthern Califori	nia, which, by the	
	way, is also where his fiction	al heroine lives and v	vorks. Another thin	g they have in	common? Mr.	
	Sinclair is also an ex-Marine.	To the best of my	, ho	wever, he neve	er competed in the	,
	Olympics—but let's find out!	Welcome to the pod	lcast Matthew Sinc	lair		

Listening Part 3: Radio-Style Interview

Vocabulary Exercises

Building vocabulary will help your listening comprehension. The vocabulary exercises that follow will give you practice with specific key words used in this interview about neuroscience. These words were selected because of their importance in understanding the interview or as important academic vocabulary. Click here to play the audio file.

Vocabulary Reference

Read the following words with their definitions, paying special attention to any words that are new or unfamiliar to you.

1.	breakthrough	n.	a sudden advance especially in knowledge or technique
2.	cognition	n.	mental processes
3.	complex	adj.	hard to separate, analyze, or solve
4.	discovery	n.	the act or process of finding or learning something new
5.	fascinating	adj.	extremely interesting
6.	forgetfulness	n.	habit of being likely to forget
7.	implant	v./n.	to insert in living tissue; something implanted
8.	ironically	adv.	expressed in a surprising and unexpected way, suggesting the opposite meaning of what is said
9.	lever	n.	a bar used to lift, move, or adjust something
10.	mimic	V.	to imitate closely
11.	mysterious	adj.	strange, unknown, or difficult to understand
12.	neuron	n.	a cell that carries messages in the brain
13.	primate	n.	member of a group of mammals that includes humans, apes, and monkeys
14.	re-create	V.	to make something from the past exist or seem to exist again

18. trauma n. a very difficult or unpleasant experience that causes emotional problems

a device that detects heat, light, sound, or motion

to keep in your memory, especially for long periods of time

19. trial n. a test of the quality, value, or usefulness of something

a job for someone to do

20. ultimately adj. at the most basic level

V.

n.

n.

15. retain

16. sensor

17. task



Choose the synonym listed in the word bank below that best matches the vocabulary from the word list on the previous page. Write the synonym in the appropriate blank below.

absent-mindedness finding (n.) progress (n.)
assignment monkeys and related animals resemble
brain cell paradoxically understanding (n.)
embed puzzling
experiment or test preserve (v.)

	Nouns	
1.	breakthrough	
2.	discovery	
3.	task	
4.	trial	
5.	neuron	
6.	primate	
7.	forgetfulness	
8.	cognition	
	Verbs	
9.	implant	
10.	mimic	
11.	retain	
	Adjectives/ Adverbs	
12.	ironically	
13.	mysterious	

Exercise 9

Fill in the blank with the correct word from the word bank below.

lever trauma re-create ultimately trial

- 1. The original experiment was conducted many years ago. It may be difficult to ______ the same conditions that were present at that time.
- 2. Their business _____ succeeded, but it took many years of hard work with little income.
- 3. They had to conduct more than one _____ of the network connection to be sure it was working properly.
- 4. If you push down on this metal _____, it will raise the bar so you can open the gate.
- 5. When people live through difficult life experiences, the memory of the _____ can often have negative emotional consequences.





Use each of the following words in a sentence of your own. Write about topics or experiences you are familiar with to help you remember the words better.

1.	fascinating
2.	complex
3.	sensor
4.	mimic
CI	cercise 11 by commercial contents on the sudio of the radio interview again. Fill in the blanks with the sing words or phrases. Then answer the multiple choice questions that follow.
Ar	chor:
	Neuroscience—the study of how our brains function—is a rapidly advancing field. New techniques and technology have allowed us to get a of the inner workings of the mind. We still have a lot to learn, but what we've seen so far is fascinating, and new discoveries are being made all the time. William Nichols brings us more on some recent advances in cognitive science.
Re	porter:
	The human brain is mysterious to most of us. One area of that's particularly complex and that we're working to better understand is memory. Dr. Rebecca Perez, a professor of neuroscience, explains some new research in the field.
Ex	pert:
	For several years now, scientists have been able to remove memories using drugs, which can be helpful in situations like psychological trauma, when certain memories cause problems. But, these drugs have also recently been used by scientists whose ultimate goal is to do the opposite. They're using these drugs in memory tests that bring us closer than ever to helping brains memories.
	In a recent study, scientists conducted an experiment in which they trained rats to press one of two levers. As reinforcement, the rats got water when they pressed the correct lever. The scientists recorded the rats' brain patterns during the memory formation process by implanting electronic, centered in the hippocampus—the part of the brain that controls
	memory. Once there was an electronic record of this memory—its neural activity, actually—the scientists gave some of the rats the drugs that made them forget the memory.



Reporter:

So the rats forgot what it was that the researchers intended for them to forget...

Expert:

	Yes, and this is the really interesting part: they were able to give that memory back to the rats later
	by using the implants. The implants would the pattern of neurons that fired while
	pressing the lever. Once this happened, the rats were able to do the correctly
	again—they recovered the memory that had been lost when they were given the
	drugs.
Re	eporter:
	So you're saying that they were able to recreate those memories in the rats'
	brains? It sounds a little bit like a light switch: turn the implant on, the memory's there; turn it off, the
	memory's gone.
E>	pert:
	Exactly. But what's more, the implant was actually able to strengthen memories.
	Compared to rats without the implant, they the memory of which bar to press much
	better—about 30% better, in fact.
	The goal is to one day do something similar with humans, so the researchers hope to start trials with
	eventually. But adapting this for human use will be complicated. Human memories
	are much more complex and involve more parts of the brain than in rats. But hopefully, things will
	keep progressing.
Re	eporter:
	Turning a memory back on could have benefits for people with certain medical
	conditions that cause And if researchers are able to develop this type of implant
	for humans, it may allow us to improve brain function itself—an possibility. After the

break, Doctor Perez and I will discuss more about _____ in cognitive science.



Here you will find sample ECPE listening questions.

NOTE: The test includes 6 questions per set; additional questions are included here for practice.

- According to the report, which procedure has been available for years?
 - A. using drugs to delete certain memories
 - B. using sensors to strengthen memory
 - C. using implants to restore certain memories
- 2. In the study mentioned, what happened when the rats pressed the correct lever?
 - A. It administered a drug.
 - B. They received a reward.
 - C. Electronic sensors were activated.
- 3. How were the rats able to recover forgotten information?
 - A. Scientists retrained them to perform the task
 - B. They were given a drug to aid memory.
 - C. The implants replicated neural activity.
- 4. Why does the reporter mention a light switch?
 - A. to explain a task the rats performed
 - B. to describe the way the implants work
 - C. to compare it to lab equipment

- 5. What effect did implants have on rats that had not been treated with drugs?
 - A. Existing memories were strengthened.
 - B. Success rates for a task decreased.
 - C. Their long-term memory was impaired.
- 6. What is the next step in the research mentioned in the report?
 - A. creating memory-erasing drugs for humans
 - B. strengthening the memory abilities of rats
 - C. testing memory implants in other animals
- 7. How does the professor feel about the future of this research?
 - A. cautiously optimistic
 - B. mostly concerned
 - C. very excited
- 8. What is the main focus of the research described in the report?
 - A. exploring ethical drug testing methods
 - B. comparing human and animal cognition
 - C. manipulating recall of memories



APPENDIX

Answer Key & Audio Scripts

Exercise 1

- 1. school
- 2. public
- 3. workplace
- 4. school or workplace
- 5. workplace
- 6. school
- 7. workplace

Exercise 2

- 1. She wanted a job as a DJ.
- 2. She wanted a free small drink.
- 3. In about 3 months the next quarter.
- 4. His friend volunteers for an organization that sells used clothing.
- 5. They don't like it and think it was a waste of money.
- 6. She is planning to stay after school to attend a club meeting.
- 7. He was planning to eat the lunch he brought.

Exercise 3

1. A 2. D 3. D 4. C 5. D 6. B 7. B

Exercise 4

1. T 2. T 3. F 4. F

Exercise 5

Answers will vary.

Exercise 6

talented pleasure series advantage former so far romance knowledge

Exercise 7

1. A 2. C 3. B 4. D 5. C 6. B

Exercise 8

1. progress 5. brain cell 8. understanding 12. paradoxically

2. finding
 3. assignment
 6. monkeys and
 7. embed
 7. puzzling
 8. puzzling
 10. resemble

4. experiment or test 7. absent-mindedness 11. preserve

Exercise 9

Re-create ultimately trial lever trauma

Exercise 10

Answers will vary.



glimpse positive retained truly sensors primates amazingly mimic huge

cognition task forgetfulness

specific successfully exciting

ironically deleted breakthroughs recall existing

Exercise 12

1. A 2. B 3. C 4. B 5. A 6. C 7. A 8. C

Audio Transcripts

Listening Part 1.

1. PLD19_0019

- M: Did you go to the university radio station orientation?
- W: I did, but they're not looking for any DJs right now. Maybe I'll just start a podcast.
- M: You won't learn anything new that way! They must've needed people for OTHER things, right?
- W: Well [trails off and pauses]... yeah, people to catalog and manage all the music they get. That WOULD get my foot in the door, I guess.
- M: And you'll learn so much more!
- N: What will the woman probably do?

2. PLD19_0027

- M: I'm sorry, that coupon is only for medium and large drinks.
- W: So, not for the small?
- M: No, sorry. Last week our receipts had coupons for free small drinks, but that promotion is finished. But with THIS coupon, all the drinks are the same price, so why not indulge?
- W: Ok, I'll do that. Oh, here: I brought my travel mug today.
- N: What does the man suggest the woman do?

3. PLD19_0032

- M: Did you get an update on the new printer?
- W: Yes. The good news is, we'll have the budget to UPGRADE next quarter.
- M: That long? For a simple black and white one? We decided to outsource the brochure printing.
- W: I thought we needed full color and a scanner, so the decision was made with that in mind.
- M: Is this something you could bring up at the management meeting?
- W: I can try.
- N: What are the speakers mainly discussing?

4. PLD19_0176

- W: What was that place you mentioned earlier? I have some clothes I'd like to donate to them.
- M: Oh, the youth club I volunteer at! They sell the items that are donated and use the money to help the environment.
- W: Like recycling?
- M: Not recycling, but have you noticed all the new trees in the city parks lately?
- W: [as if she is just realizing it] Oh yeah, now that you mention it, I HAVE noticed them.
- N: What is the money probably used for?

5. PLD19_0153

- M: How do you like the office remodel?
- W: Umm, I'm not sure what those interior designers were thinking.



- M: I agree. The colors actually distract me from work sometimes. They hurt my eyes!
- W: [disgusted] And those chairs... [trails off]
- M: Wonder how much the company paid for all this.
- W: Whatever it was, it was too much.
- N: Why does the woman mention some chairs?

6. PLD19_0134

- M: Do you still need a ride home from school today?
- W: No, I think I'm going to stay late and go to the Environmental Club meeting.
- M: Oh, really? I didn't know you were in that club.
- W: Well, not yet. I'm still on the fence. It's either that or singing in the choir.
- N: What does the woman say about the choir?

7. PLD19_0076

- M: I put my lunch in the refrigerator this morning, and now it's gone.
- W: It gets so crowded in there when everyone in the office brings lunch. Are you sure it didn't get pushed to the back?
- M: That happened to me last week...someone moved my lunch—I found it in the drawer.
- M: Let me check one more time...
- W: If it comes to that, I'll go out to lunch with you today.
- N: What will the man do next?

Listening Part 2: Monologue, PLM20_0019_00

- N: Listen to the host of a podcast.
- W: Hello and welcome to a new episode of Writers at Work, a podcast featuring interviews with some of today's most talented authors of fiction. I'm your host, Beth Ann Jackson, coming to you from the studios of WBBC in Springfield, Vermont. Every week, I have the pleasure of talking with a writer whose work I [STRESSED] enjoy and want to share with the world.

Today I'm delighted to welcome Matthew Sinclair to the podcast. Mr. Sinclair writes in several genres but is no doubt MOST widely known for his best-selling series of detective novels, The Carter Files, featuring private investigator Kate Carter. The intrepid Ms. Carter is a former Olympic gymnast who uses her athleticism to her advantage. //Time and again, she fools the bad guys into underestimating her.// Kate is also a former U.S. Marine, who served her time in the military as a police investigator, so she brings an impressive skill set to her work as a private eye. Each book in the series—there have been six of them so FAR—has plenty of action, suspense, plot twists, and romance, too. And I'll let you all in on a little secret: the series' latest entry may not come out until next week, but I'VE already read it, and I think it's the best one yet.

Matthew Sinclair will be speaking with us today from his home in southern California, which, by the way, is also where his fictional heroine lives and works. Another thing they have in common? Mr. Sinclair is ALSO an ex-Marine. To the best of my knowledge, however, HE never competed in the Olympics—but let's find out! Welcome to the podcast, Matthew Sinclair!

N: According to the speaker, what is true of both Matthew Sinclair and Kate Carter?



- N: What does the speaker imply about Kate Carter's future?
- N: What does the speaker imply about Matthew Sinclair's newest book?
- N: What does the speaker imply she is going to ask Matthew Sinclair about?
- N: What is the speaker's main purpose?
 - N: What does the speaker mean when she says: audio only: Time and again, she fools the bad guys into underestimating her.

Listening Part 3: Radio Interview, PLI11_0003

Anchor:

Neuroscience—the study of how our brains function—is a rapidly advancing field. New techniques and technology have allowed us to get a glimpse of the inner workings of the mind. We still have a lot to learn, but what we've seen so far is truly fascinating, and new discoveries are being made all the time. William Nichols brings us more on recent advances in cognitive science.

Reporter:

The human brain is amazingly mysterious to most of us. One area of cognition that's particularly complex and that we're working to better understand is memory. Dr. Rebecca Perez, a professor of neuroscience, explains some new research in the field.

Expert:

For several years now, scientists have been able to remove specific memories using drugs which can be helpful in situations like psychological trauma, when certain memories cause problems. But ironically, these drugs have also recently been used by scientists whose ultimate goal is to do the opposite. They're using these drugs in memory tests that bring us closer than ever to helping brains recall memories.

In a recent study, scientists conducted an experiment in which they trained rats to press one of two levers. As positive reinforcement, the rats got water when they pressed the correct lever. The scientists recorded the rats' brain patterns during the memory formation process by implanting electronic sensors, centered in the hippocampus—the part of the brain that controls memory. Once there was an electronic record of this memory—its neural activity, actually—the scientists gave some of the rats the drugs that made them forget the memory.

Reporter:

So the rats forgot what it was that the researchers intended for them to forget...

Expert:

Yes, and this is the really interesting part: they were able to give that memory back to the rats later by using the implants. The implants would mimic the pattern of neurons that fired while pressing the lever. Once this happened, the rats were able to do the task correctly again—they successfully recovered the memory that had been lost when they were given the drugs.

Reporter:

So you're saying that they were able to recreate those deleted memories in the rats' brains? It sounds a little bit like a light switch: turn the implant on, the memory's there; turn it off, the memory's gone.



Expert:

Exactly. But what's more, the implant was actually able to strengthen existing memories. Compared to rats without the implant, they retained the memory of which bar to press much better—about 30% better, in fact.

The goal is to one day do something similar with humans, so the researchers hope to start trials with primates soon. But adapting this for human use will be complicated. Human memories are much more complex and involve more parts of the brain than in rats. But hopefully, things will keep progressing.

Reporter:

Turning a memory back on could have huge benefits for people with certain medical conditions that cause forgetfulness. And if researchers are able to develop this type of implant for humans, it may allow us to improve brain function itself—an exciting possibility. After the break, Doctor Perez and I will discuss some more breakthroughs in cognitive science.