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# Level 6 - 23rd September 2024

'Third state' exists beyond life and death, says study

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https://breakingnewsenglish.com/2409/240923-the-third-state.html

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## Please try Levels 4 and 5 (they are easier).

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## THE ARTICLE

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

A thought-provoking study from scientists in the USA has suggested a "third state" that exists after life and death. This somewhat mind-blowing concept posits a phenomenon in which the cells in the organs of a deceased body adopt new functions after the body dies. Biologist Peter Nobel and bioinformatics researcher Alex Pozhitkov explained how cells transform after their host organism dies. The scientists wrote: "These findings demonstrate the inherent plasticity of cellular systems and challenge the idea that cells and organisms can evolve only in predetermined ways." They added: "The third state suggests that organismal death may play a significant role in how life transforms over time."

The scientists suggested the existence of two kinds of "biobot" that are integral in the mechanics of the third state. Wiktionary.org defines a biobot as: "A robot that is partly or wholly biological in nature, as for example...plant cells or animal cells that can perform tasks such as moving and reacting." The researchers termed one biobot as a "xenobot". This reorganizes cells into a new multi-cellular organism. Other biobots are "anthrobots". These are capable of self-assembling cells and moving around. The scientists said xenobots exist "beyond the traditional boundaries of life and death". They added the bots offer "prospects for new treatments" and personalized and preventive medicine.

Sources: https://www.**popularmechanics.com**/science/health/a62244774/biobots-third-state/

https://en.wiktionary.org/wiki/biobot

https://www.sciencealert.com/these-creatures-occupy-third-state-beyond-life-and-death-

scientists-say

https://metro.co.uk/2024/09/16/bodies-dont-die-scientists-discover-third-state-life-21614609/

## **WARM-UPS**

- **1. BODILY CELLS:** Students walk around the class and talk to other students about bodily cells. Change partners often and share your findings.
- **2. CHAT:** In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

thought-provoking / scientists / third state / life / death / organism / plasticity / time / biobots / plant cells / animal cells / tasks / researchers / treatments / medicine

Have a chat about the topics you liked. Change topics and partners frequently.

- **3. DEATH:** Students A **strongly** believe there is life after death; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.
- **4. LIFE AND DEATH:** What would you like to do in life? How would you like to be remembered in death? Complete this table with your partner(s). Change partners often and share what you wrote.

	Life	Death
Hobbies		
Exercise		
Friends		
Job		
English		
Achievements		

- **5. BOT:** Spend one minute writing down all of the different words you associate with the word "bot". Share your words with your partner(s) and talk about them. Together, put the words into different categories.
- **6. NEW TREATMENTS:** Rank these with your partner. Put the best treatments at the top. Change partners often and share your rankings.
  - Baldness
  - No teeth decay
  - Bigger muscles
  - Perfect vision

- No headaches
- No wrinkles
- No hay fever
- Better concentration

## **VOCABULARY MATCHING**

#### Paragraph 1

- thought-provoking a. Something that is really, really, surprising or amazing.
- 2. mind-blowing b. An animal or plant on or in which a parasite or organism lives.
- 3. phenomenon c. Something that is decided or fixed before it happens.
- 4. host (noun) d. An unusual event or thing that you can see or experience.
- 5. inherent e. To change and develop slowly over time.
- 6. evolve f. Something that makes you think a lot about an idea or question.
- 7. predetermined g. A quality or feature that is a natural part of something.

#### Paragraph 2

- 8. integral h. To explain the meaning of a word or idea.
- 9. define i. Any living thing, like a plant, animal, or person.
- 10. organism j. Something that helps stop something bad from happening.
- 11. capable k. To be real or to be present in the world.
- 12. exist I. Having the ability to do something.
- 13. boundary m. An important part of something that is necessary.
- 14. preventive n. A line or limit that separates two areas.

# **BEFORE READING / LISTENING**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

#### **1. TRUE / FALSE:** Read the headline. Guess if a-h below are true (T) or false (F).

- 1. The article says a study from America will make people think. **T / F**
- 2. The writer says the concept of a third state could blow people's minds. T / F
- 3. Scientists say some cells are made from plastic. **T / F**
- 4. The death of organs could play a role in our evolution. **T/F**
- 5. The scientists say two kinds of biobot are active in the third state. **T/F**
- 6. Biobots are all wholly biological in nature. **T/F**
- 7. Anthrobots reorganize cells into new multi-cellular organisms. **T/F**
- 8. Anthrobots and xenobots could lead to personalized medicines. T / F

#### **2. SYNONYM MATCH:** (The words in **bold** are from the news article.)

- 1. suggested
- 2. somewhat
- 3. adopt
- 4. predetermined
- 5. significant
- 6. integral
- 7. termed
- 8. boundaries
- 9. prospects
- 10. medicine

- a. fundamental
- b. set
- c. dividing lines
- d. relatively
- e. named
- f. remedies
- g. argued
- h. possibilities
- i. take on
- i. crucial

## **3. PHRASE MATCH:** (Sometimes more than one choice is possible.)

- 1. A thought-
- 2. the cells in the organs of a
- 3. the inherent plasticity
- 4. cells and organisms can evolve only in
- 5. organismal death may play
- 6. the existence of two
- 7. animal cells that can
- 8. This reorganizes cells into a new
- 9. beyond the traditional boundaries
- 10. new treatments and personalized and

- a. of cellular systems
- b. of life and death
- c. a significant role
- d. preventive medicine
- e. predetermined ways
- f. perform tasks
- g. provoking study
- h. kinds of "biobot"
- i. multi-cellular organism
- j. deceased body

## **GAP FILL**

A thought-provoking study from scientists in the USA has	researcher
suggested a "third state" that (1) after life and	posits
death. This somewhat mind-blowing concept (2) a	organism
phenomenon in which the cells in the (3) of a	_
deceased body adopt new functions after the body dies. Biologist	ways
Peter Nobel and bioinformatics (4) Alex Pozhitkov	exists
explained how cells transform after their host (5)	role
dies. The scientists wrote: "These findings demonstrate the	organs
inherent (6) of cellular systems and challenge the	plasticity
idea that cells and organisms can evolve only in predetermined	plasticity
(7)" They added: "The third state suggests that	
organismal death may play a significant (8) in	
how life transforms over time."	
The scientists suggested the existence of two kinds of "biobot"	termed
that are (9) in the mechanics of the third state.	defines
Wiktionary.org (10) a biobot as: "A robot that is	medicine
partly or wholly biological in nature, as for exampleplant cells or	
animal cells that can perform (11) such as moving	tasks
and reacting." The researchers (12) one biobot as	capable
a "xenobot". This reorganizes cells into a new multi-cellular	integral
Other biobots are "anthrobots". These are	boundaries
of self-assembling cells and moving around.	organism
The scientists said xenobots exist "beyond the traditional	or garnsin
of life and death". They added the bots offer	
"prospects for new treatments" and personalized and preventive	
(16)	

# **LISTENING** — Guess the answers. Listen to check.

1)	a phenomenon in which the cells in the organs of a deceased body a. adopt new functional b. adopt new function c. adopt new functions d. adopt new functioned
2)	Alex Pozhitkov explained how cells transform after their  a. host organism dies  b. hosed organism dies  c. hots organism dies  d. ghost organism dies
3)	The scientists wrote: "These findings demonstrate" a. the inherent plaster city b. the inherent plausibility c. the inherent plastic city d. the inherent plasticity
4)	challenge the idea that cells and organisms can evolve only  a. in predeterminate ways b. in predetermined ways c. in predetermined weighs d. in predeterminate whys
5)	The third state suggests that organismal death may play  a. a significant role  b. a significant roll  c. a significant troll  d. a significant rule
6)	Wiktionary.org defines a biobot as: "A robot that is partly or wholly a. biological in nature b. biological on nature c. biological immature d. biological in mature
7)	plant cells or animal cells that can perform tasks such as  a. moving and react tin  b. moving and reactive  c. moving and reaction  d. moving and reacting
8)	researchers termed one biobot as a "xenobot". This reorganizes cells into a new a. multi-cell yule are organism b. multi-cellular organics c. multi-cellular organism d. multi-cellular organizing
9)	The scientists said xenobots exist beyond  a. the traditionally boundaries  b. the traditional boundaries  c. the traditionall boundaries  d. the traditionally boundaries
10)	) "prospects for new treatments" and personalized
	<ul><li>a. and prevented medicine</li><li>b. and prevention medicine</li><li>c. and preventive medicine</li><li>d. and preventable medicine</li></ul>

# **LISTENING** – Listen and fill in the gaps

A thought-provoking study	from scientists in the USA has suggested a "third
state" (1)	life and death. This somewhat mind-
blowing concept posits a p	henomenon in which the cells in the organs of a
deceased body (2)	after the body dies. Biologist
Peter Nobel and bioinforma	tics researcher Alex Pozhitkov explained how cells
transform after (3)	dies. The scientists wrote:
"These findings demonstr	ate (4) of cellular
systems and challe	enge the idea that cells and
(5)	only in predetermined ways." They added:
"The third state sugg	ests that organismal death may play a
(6)	how life transforms over time."
The scientists suggested	(7) two kinds of
"biobot" that are integral ir	the mechanics of the third state. Wiktionary.org
defines a biobot as: "A rob	oot that is partly (8)
in nature, as for example	plant cells or animal cells that can perform tasks
such as (9)	" The researchers termed one
biobot as a "xenobot". T	his reorganizes cells into a new multi-cellular
organism. Other	biobots are "anthrobots". These
(10)	self-assembling cells and moving around.
The scientists said xen	obots exist "(11)
boundaries of life and deat	h". They added the bots offer "prospects for new
treatments" and (12)	medicine.

# **COMPREHENSION QUESTIONS**

1.	What adjective did the writer use to describe the study from the USA?
2.	What might the cells in organs adopt after the body dies?
3.	What's the job of Alex Pozhitkov?
4.	What did the researchers say was inherent about cellular systems?
5.	What kind of role might the death of organs play in transforming life?
6.	How many kinds of biobots did the researchers write about?
7.	What tasks do biobots perform?
8.	What new thing do xenobots create?
9.	What do xenobots exist beyond the boundaries of?
10.	What might biobots lead to in the future?

## **MULTIPLE CHOICE - QUIZ**

b) a significant role

d) a minor role

c) an unexplained role

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

1) What adjective did the writer use 6) How many kinds of biobots did the to describe the study from the USA? researchers write about? a) explosive a) 4 b) thought-provoking b) 3 c) revolutionary c) 2 d) suggestive d) 1 2) What might the cells in organs 7) What tasks do biobots perform? adopt after the body dies? a) repairing and consolidating b) reproducing and regenerating a) DNA c) doubling and trebling b) a nucleus d) moving and reacting c) surrogates d) new functions 8) What new thing do xenobots 3) What's the job of Alex Pozhitkov? create? a) multi-cellular organisms a) bioinformatics researcher b) a biologist b) platelets c) a member of the Nobel committee c) anti-bodies d) a robotics engineer d) life 4) What did the researchers say was 9) What do xenobots exist beyond the boundaries of? inherent about cellular systems? a) their pliability a) life and death b) circularity b) plausibility c) plasticity c) existence d) networking d) science 5) What kind of role might the death 10) What might biobots lead to in the of organs play in transforming life? future? a) a transformative role a) peace

b) new treatments and medicines

c) eternal life

d) cyborgs

### **ROLE PLAY**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

#### Role A - Baldness

You think baldness is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, no wrinkles or better concentration.

#### Role B - Perfect Vision

You think perfect vision is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): baldness, no wrinkles or better concentration.

#### Role C - No Wrinkles

You think no wrinkles is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, baldness or better concentration.

#### Role D - Better Concentration

You think better concentration is the thing we need a treatment for most. Tell the others three reasons why. Tell them why treatments for their things aren't as important. Also, tell the others which is the least important of these (and why): perfect vision, no wrinkles or baldness.

## AFTER READING / LISTENING

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

**1. WORD SEARCH:** Look online / in your dictionary to find collocates, information on, synonyms for... the words 'life' and 'death'.

life	death

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.
- **2. ARTICLE QUESTIONS:** Look back at the article and write down some questions you would like to ask the class about the text.
  - Share your questions with other classmates / groups.
  - Ask your partner / group your questions.
- **3. GAP FILL:** In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning...?
- **4. VOCABULARY:** Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.
- **5. TEST EACH OTHER:** Look at the words below. With your partner, try to recall how they were used in the text:

<ul><li>thought</li></ul>	• two
<ul><li>concept</li></ul>	• partly
• host	<ul><li>nature</li></ul>
<ul><li>findings</li></ul>	• new
<ul><li>evolve</li></ul>	<ul><li>beyond</li></ul>
• role	medicine

## **BODILY CELLS SURVEY**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

Write five GOOD questions about bodily cells in the table. Do this in pairs. Each student must write the questions on his / her own paper.

When you have finished, interview other students. Write down their answers.

	STUDENT 1	STUDENT 2	STUDENT 3
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

## **BODILY CELLS DISCUSSION**

STUDENT A's QUESTIONS (Do not show these to student B)

- 1. What did you think when you read the headline?
- 2. What images are in your mind when you hear the word 'life'?
- 3. What do you think of life and death?
- 4. What happens after we die?
- 5. What do you know about cells?
- 6. Would you like to live longer?
- 7. What kind of science would you like to get into?
- 8. How mind-blowing is it that there is a third state?
- 9. How does life transform over time?
- 10. What age would you like to live to be?

'Third state' exists beyond life and death, says study – 23rd September 2024
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## **BODILY CELLS DISCUSSION**

STUDENT B's QUESTIONS (Do not show these to student A)

- 11. Did you like reading this article? Why/not?
- 12. What do you think of when you hear the word 'death'?
- 13. What do you think about what you read?
- 14. Is there life after death?
- 15. What would you think if medicine enabled us to live to be 200?
- 16. What do you think of biobots?
- 17. What will medicine be like in 100 years from now?
- 18. What do you think of science?
- 19. How great is life?
- 20. What questions would you like to ask the researchers?

# **DISCUSSION** (Write your own questions)

STUDENT A's QUESTIONS (Do not show these to student B)

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SSION (Wri	ite your	_	ions)
	ite your	_	ions)
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SSION (Wri	ite your	_	ions)
SSION (Wri	ite your	_	ions)

# **LANGUAGE - CLOZE**

that phen funct Alex scier syste pred	(2) nomen cions ( Pozhi atists ems a eterm	-(1) study after life ard on (3) white after the body of the thick the body of the thick the	nd dech the dies. now confinding the integral of the decay and dec	eath. This some cells in the Biologist Pete cells transformings demonstrated that cells ded: "The third	ewha orgar r Not after ate t and d stat	at mind-blowing of a decease oel and bioinfortheir (4) he inherent (5) arganisms comes suggests that	g cored boormations organism events organism e	ncept posits a dy adopt new cs researcher nism dies. The of cellular volve only in
(7)roboror a researmult asserthe to researmult.	t that nimal archer i-cellu mblin raditi ew tre	tists suggested he mechanics o is partly or wh cells that can rs (9) one llar organism. O g cells and mov onal boundaries eatments," and p	f the olly be biobe ther of liperson	third state. Voiological in na rform tasks so the as a "xenoble biobots are "around. The sofe and death".	Viktion ture, such pot". Inthropientis They	onary.org defin  (8) for e as moving a This reorganize bots". These and sts said xenobe y added the bo medicine.	es a xamp nd rees celes	biobot as: "A bleplant cells eacting." The lls into a new of self- kist "(11) fer "prospects
1.	(a)	provocative	(b)	provoking	(c)	provocation	(d)	provocatively
2.	(a)	exerts	(b)	exists	(c)	exits	(d)	exacts
3.	(a)	to	(b)	on	(c)	as	(d)	in
4.	(a)	ghost	(b)	host	(c)	hostess	(d)	haste
5.	(a)	claylike	(b)	plasticity	(c)	ironed	(d)	earthy
6.	(a)	of	(b)	as	(c)	in	(d)	if
7.	(a)	at	(b)	to	(c)	in	(d)	on
8.	(a)	this	(b)	by	(c)	as	(d)	to
9.	(a)	tamed	(b)	teemed	(c)	teamed	(d)	termed
10.	(a)	capable	(b)	culpable	(c)	copiable	(d)	capacity
11.	(a)	beyond	(b)	yonder	(c)	yon	(d)	bedeck
12.	(a)	prevention	(b)	preventable	(c)	preventive	(d)	prevented

### **SPELLING**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

## Paragraph 1

- 1. A thought-<u>nripogkvo</u> study
- 2. mind-blowing concept posits a ponoeenmhn
- 3. the organs of a sdeadeec body
- 4. the ihnenert plasticity
- 5. evolve only in depdetreinemr ways
- 6. play a <u>ntsfiaciign</u> role

## Paragraph 2

- 7. the snxceieet of two kinds of "biobot"
- 8. gaierInt in the mechanics
- 9. a new multi-luaellrc organism
- 10. capable of self-<u>lbesqamsni</u> cells
- 11. traditional nedbuorsai of life and death
- 12. eitvpevnre medicine

## **PUT THE TEXT BACK TOGETHER**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

#### Number these lines in the correct order.

(	)	and reacting." The researchers termed one biobot as a "xenobot". This reorganizes cells into a new multi-cellular
(	)	researcher Alex Pozhitkov explained how cells transform after their host organism
(	)	the bots offer "prospects for new treatments" and personalized and preventive medicine.
(	)	dies. The scientists wrote: "These findings demonstrate the inherent plasticity of cellular systems and challenge
(	)	organism. Other biobots are "anthrobots". These are capable of self-assembling cells and moving
(	)	and death. This somewhat mind-blowing concept posits a phenomenon in which the cells in the organs
(	)	"The third state suggests that organismal death may play a significant role in how life transforms over time."
(	)	of a deceased body adopt new functions after the body dies. Biologist Peter Nobel and bioinformatics
(	)	around. The scientists said xenobots exist "beyond the traditiona boundaries of life and death". They added
(	)	The scientists suggested the existence of two kinds of "biobot" that are integral in the
(	)	mechanics of the third state. Wiktionary.org defines a biobot as: "A robot that is partly or wholly biological in
(	)	the idea that cells and organisms can evolve only in predetermined ways." They added:
(	<b>1</b> )	A thought-provoking study from scientists in the USA has suggested a "third state" that exists after life
(	)	nature, as for exampleplant cells or animal cells that can perform tasks such as moving

## PUT THE WORDS IN THE RIGHT ORDER

From https://breakingnewsenglish.com/2409/240923-the-third-state.html

bodies . cells organs of in the The deceased cells after transform their organism How dies . host inherent plasticity cellular demonstrate Findings of systems . the ways . in organisms predetermined The evolve can only significant a transforms . Play how role life in kinds . the Scientists two of existence suggested robot biological . is A partly wholly that or can perform that Cells such moving . as tasks termed "xenobot" . The as researchers a biobot one

life of Beyond death . and boundaries traditional the

# **CIRCLE THE CORRECT WORD (20 PAIRS)**

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

A thought-provoking / provocation study from scientists in the USA has suggested a "third state" that exits / exists after life and death. This somewhat mind-blowing concept posts / posits a phenomenon in which the cells in the organs of a deceased body adopt / adept new functions after the body demise / dies. Biologist Peter Nobel and bioinformatics researcher Alex Pozhitkov explained how / thus cells transform after their host organism dies. The scientists wrote: "These findings demonstrate the inherent plasticity of / for cellular systems and challenge the idea that / what cells and organisms can evolve only on / in predetermined ways." They added: "The third state suggests that organismal death may play a significance / significant role in how life transforms over time."

The scientists suggested the *exits / existence* of two kinds of "biobot" that are *integral / integers* in the mechanics of the third state. Wiktionary.org defines a biobot as: "A robot that is partly or *whole / wholly* biological in nature, as for example...plant cells or animal cells that can perform tasks such *was / as* moving and reacting." The researchers *termed / teemed* one biobot as a "xenobot". This *reorganizing / reorganizes* cells into a new multicellular organism. Other biobots are "anthrobots". These are *culpable / capable* of self-assembling cells and moving *abound / around*. The scientists said xenobots exist "*beyond / yonder* the traditional boundaries of life and death". They added the bots offer "prospects *for / at* new treatments" and personalized and preventive medicine.

Talk about the connection between each pair of words in italics, and why the correct word is correct. Look up the definition of new words.

## **INSERT THE VOWELS (a, e, i, o, u)**

From https://breakingnewsenglish.com/2409/240923-the-third-state.html

\_ th\_\_ght-pr\_v\_k\_ng st\_dy fr\_m sc\_\_nt\_sts \_n th\_ \_S\_ h\_s s\_gg\_st\_d \_ "th\_rd st\_t\_" th\_t \_x\_sts \_ft\_r l\_f\_ \_nd d\_\_th. Th\_s s\_m\_wh\_t m\_nd-bl\_w\_ng c\_nc\_pt p\_s\_ts \_ ph\_n\_m\_n\_n \_n wh\_ch th\_ c\_lls \_n th\_ \_rg\_ns \_f \_ d\_c\_s\_d b\_dy \_d\_pt n\_w f\_nct\_\_ns \_ft\_r th\_ b\_dy  $\label{eq:continuous_d_s} d\_s. \quad B\_l\_g\_st \quad P\_t\_r \quad N\_b\_l \quad \_nd \quad b\_\_nf\_rm\_t\_cs$ r\_s\_\_rch\_r \_l\_x P\_zh\_tk\_v \_xpl\_\_n\_d h\_w c\_lls tr\_nsf\_rm \_ft\_r th\_\_r h\_st \_rg\_n\_sm d\_\_s. Th\_ sc\_\_nt\_sts wr\_t\_: "Th\_s\_ f\_nd\_ngs d\_m\_nstr\_t\_ th\_  $\_nh\_r\_nt \quad pl\_st\_c\_ty \quad \_f \quad c\_ll\_l\_r \quad syst\_ms \quad \_nd \quad ch\_ll\_ng\_$ th\_ \_d\_\_ th\_t c\_lls \_nd \_rg\_n\_sms c\_n \_v\_lv\_ \_nly \_n pr\_d\_t\_rm\_n\_d w\_ys." Th\_y \_dd\_d: "Th\_ th\_rd st\_t\_ s\_gg\_sts th\_t \_rg\_n\_sm\_l d\_\_th m\_y pl\_y \_ s\_gn\_f\_c\_nt r\_l\_ \_n h\_w l\_f\_ tr\_nsf\_rms \_v\_r t\_m\_." Th\_ sc\_\_nt\_sts s\_gg\_st\_d th\_ \_x\_st\_nc\_ \_f tw\_ k\_nds \_f "b\_\_b\_t" th\_t \_r\_ \_nt\_gr\_l \_n th\_ m\_ch\_n\_cs \_f th\_ th\_rd st\_t\_. W\_kt\_\_n\_ry.\_rg d\_f\_n\_s \_ b\_\_b\_t \_s: "\_  $r\_b\_t \quad th\_t \quad \_s \quad p\_rtly \quad \_r \quad wh\_lly \quad b\_\_l\_g\_c\_l \quad \_n \quad n\_t\_r\_, \\$ \_s f\_r \_x\_mpl\_...pl\_nt c\_lls \_r \_n\_m\_l c\_lls th\_t c\_n p\_rf\_rm t\_sks s\_ch \_s m\_v\_ng \_nd r\_\_ct\_ng." Th\_ r\_\_rg\_n\_z\_s c\_lls \_nt\_ \_ n\_w m\_lt\_-c\_ll\_l\_r \_rg\_n\_sm.  $\_th\_r$   $b\_\_b\_ts$   $\_r\_$  " $\_nthr\_b\_ts$ ".  $Th\_s\_$   $\_r\_$   $c\_p\_bl\_$   $\_f$ s\_lf-\_ss\_mbl\_ng c\_lls \_nd m\_v\_ng \_r\_\_nd. Th\_ sc\_\_nt\_sts s\_\_d x\_n\_b\_ts \_x\_st "b\_y\_nd th\_ tr\_d\_t\_\_n\_l b\_\_nd\_r\_\_s \_f l\_f\_ \_nd d\_\_th". Th\_y \_dd\_d th\_ b\_ts \_ff\_r "pr\_sp\_cts f\_r n\_w tr\_\_tm\_nts" \_nd p\_rs\_n\_l\_z\_d \_nd pr\_v\_nt\_v\_ m\_d\_c\_n\_.

## PUNCTUATE THE TEXT AND ADD CAPITALS

From <a href="https://breakingnewsenglish.com/2409/240923-the-third-state.html">https://breakingnewsenglish.com/2409/240923-the-third-state.html</a>

a thoughtprovoking study from scientists in the usa has suggested a third state that exists after life and death this somewhat mindblowing concept posits a phenomenon in which the cells in the organs of a deceased body adopt new functions after the body dies biologist peter nobel and bioinformatics researcher alex pozhitkov explained how cells transform after their host organism dies the scientists wrote these findings demonstrate the inherent plasticity of cellular systems and challenge the idea that cells and organisms can evolve only in predetermined ways they added the third state suggests that organismal death may play a significant role in how life transforms over time

the scientists suggested the existence of two kinds of biobot that are integral in the mechanics of the third state wiktionaryorg defines a biobot as a robot that is partly or wholly biological in nature as for exampleplant cells or animal cells that can perform tasks such as moving and reacting the researchers termed one biobot as a xenobot this reorganizes cells into a new multicellular organism other biobots are anthrobots these are capable of selfassembling cells and moving around the scientists said xenobots exist beyond the traditional boundaries of life and death they added the bots offer prospects for new treatments and personalized and preventive medicine

## PUT A SLASH ( / ) WHERE THE SPACES ARE

From https://breakingnewsenglish.com/2409/240923-the-third-state.html

Athought-provokingstudyfromscientistsintheUSAhassuggesteda"t hirdstate"thatexistsafterlifeanddeath.Thissomewhatmind-blowin gconceptpositsaphenomenoninwhichthecellsintheorgansofadeceas edbodyadoptnewfunctionsafterthebodydies.BiologistPeterNobelan dbioinformaticsresearcherAlexPozhitkovexplainedhowcellstransfor maftertheirhostorganismdies. The scientists wrote: "The sefindings de monstratetheinherentplasticityofcellularsystemsandchallengetheid eathatcellsandorganismscanevolveonlyinpredeterminedways."The yadded: "Thethirdstatesuggeststhatorganismaldeathmayplayasigni ficantroleinhowlifetransformsovertime."Thescientistssuggestedthe existenceoftwokindsof"biobot"thatareintegralinthemechanicsofthet hirdstate. Wiktionary.orgdefinesabiobotas: "Arobotthatispartlyorwh ollybiologicalinnature, as for example... plant cells or an imal cells that ca nperformtaskssuchasmovingandreacting."Theresearcherstermedo nebiobotasa"xenobot". This reorganizes cells into a new multi-cellularo rganism.Otherbiobotsare"anthrobots".Thesearecapableofself-asse mblingcellsandmovingaround. The scientists said xenobots exist "beyo ndthetraditionalboundariesoflifeanddeath". Theyaddedthebotsoffer "prospectsfornewtreatments" and personalized and preventive medici ne.

## **FREE WRITING**

Write about <b>bodily cells</b> for 10	minutes.	Comment on	your partner's	paper.

# **ACADEMIC WRITING**

There is life after death. Discuss.			

#### **HOMEWORK**

- **1. VOCABULARY EXTENSION:** Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.
- **2. INTERNET:** Search the Internet and find out more about this news story. Share what you discover with your partner(s) in the next lesson.
- **3. BODILY CELLS:** Make a poster about bodily cells. Show your work to your classmates in the next lesson. Did you all have similar things?
- **4. THE THIRD STATE:** Write a magazine article about the third state. Include imaginary interviews with people who believe and disbelieve this.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

- **5. WHAT HAPPENED NEXT?** Write a newspaper article about the next stage in this news story. Read what you wrote to your classmates in the next lesson. Give each other feedback on your articles.
- **6. LETTER:** Write a letter to an expert on bodily cells. Ask him/her three questions about them. Give him/her three of your opinions of a third state. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

## **ANSWERS**

## **VOCABULARY (p.4)**

2. 1. f 3. d 4. b 5. а g 6. е 7. С 8. 9. h 10. i 11. 12. k 13. 14. m n j

## TRUE / FALSE (p.5)

1 T 2 T 3 F 4 T 5 T 6 F 7 F 8 T

## **SYNONYM MATCH (p.5)**

1. g	2. d	3. i	4. b	5. j
6. a	7. e	8. c	9. h	10. f

#### **COMPREHENSION QUESTIONS (p.9)**

#### WORDS IN THE RIGHT ORDER (p.19)

1.	Thought-provoking	1.	The cells in the organs of deceased bodies.
2.	New functions	2.	How cells transform after their host organism dies.
3.	Bioinformatics researcher	3.	Findings demonstrate the inherent plasticity of cellular systems.
4.	Plasticity	4.	The organisms can evolve only in predetermined ways.
5.	A significant role	5.	Play a significant role in how life transforms.
6.	Two	6.	Scientists suggested the existence of two kinds.
7.	Moving and reacting	7.	A robot that is partly or wholly biological.
8.	New multi-cellular organisms	8.	Cells that can perform tasks such as moving.
9.	Life and death	9.	The researchers termed one biobot as a xenobot.
10.	New treatments and personalized and preventive medicine	10.	Beyond the traditional boundaries of life and death.

## **MULTIPLE CHOICE - QUIZ (p.10)**

1. b 2. d 3. a 4. c 5. b 6. c 7. d 8. a 9. a 10. b

#### **ALL OTHER EXERCISES**

Please check for yourself by looking at the Article on page 2. (It's good for your English ;-)