

INGLÊS

The following text refers to questions 21 to 28.

THE SCIENCE OF LAUGHS

Scanning brains and eavesdropping on chimps, researchers are figuring out why we chuckle, guffaw and crack up. Hint: it isn't funny.

BY SHARON BEGLEY

01 Thinkers from Plato and Aristotle to Kant, Darwin and Freud
02 have tried to **fathom** laughter (Plato feared it would disrupt
03 the state, and Kant theorized that it arises when what you expect
04 to happen doesn't, ... (I) ... is why surprising punch lines
05 work), but they've been long on philosophy and short on science.
06 Lately, though, an intrepid band of researches ... (II) ... to
07 remedy that. With techniques like MRI brain scans to probe why
08 people cannot tickle themselves into paroxysms of laughter, they
09 are tackling "one of the last great unsolved problems in human
10 behavior," says neuroscientist Robert Provine of the University
11 of Maryland, ... (III) ... book, "Laughter: A Scientific
12 Investigation," was just published.

13 To investigate the roots of laughter, scientists ... (IV) ...
14 to our primate cousins. If you tickle a chimp (carefully; and
15 preferably a baby), it will likely laugh, but the sound ... (V) ...
16 human laughter so much as it does panting, with one sound per
17 inhale and exhale. Provine realized that the reason chimps
18 cannot emit a string of "ho ho ho's" is that they cannot make
19 more than a single sound when they exhale or inhale. Humans,
20 in contrast, can chop up a single exhalation into multiple bursts
21 of "ha ha ha" – or words. (Speech results from chopping up an
22 exhalation into separate sounds.) "Laughter," says Provine, "is a
23 probe into such fundamental questions as why humans can speak
24 but other apes can't." No humanlike laughing, no speaking.

25 But what do titters communicate? Some clues come from
26 Provine's collection of 1,200 "laugh episodes," from
27 **eavesdropping** in public places. He finds that speakers laugh
28 more than listeners, and women laugh at men more than vice
29 versa. Laughter ... (VI) ... to signal an attempt to ingratiate
30 oneself: in India, notes Provine, men of lower castes giggle
31 ... (VII) ... addressing men of higher castles, but never
32 **the other way round**. People in power seldom giggle. More
33 evidence that laughing has less to do with humor than with
34 social signals is that, in Provine's 1,200 samples, by far the
35 remarks that most often elicited laughter were of the "it was
36 nice meeting you, too" or "I know" variety. In other words, witless.
37 "Laughter is only rarely a response to jokes," says Provine. "It
38 solidifies relationships and pulls people into the fold."

39 Laughter seems intimately ... (VIII) ... with our physiology.
40 It blocks a neural reflex that regulates muscle tone, proving
41 that "going weak with laughter" is more than a metaphor. Tumors
42 or lesions of the brain's hypothalamus, ... (IX) ... regulates
43 basic processes like respiration, can cause bouts of uncontrolled
44 laughter. And although laughter seems to have evolved because
45 of the message it sends to others, it may have a therapeutic
46 effect on the laughter, too: it can raise heart rate as much as
47 aerobic exercise, lessen the perception of pain and increase
48 tolerance of discomfort.

(Adapted from *Newsweek*)

VOCABULÁRIO

As questões de 21 a 28 referem-se ao texto cujo vocabulário se segue:

- laughs/laughters= risos
- to scan= explorar, examinar, sondar
- brains= cérebros
- to eavesdrop= bisbilhotar
- chimps= chimpanzés

- *researchers*= pesquisadores
- *to figure out*= entender
- *to chuckle*= dar risinhos
- *to guffaw*= gargalhar
- *to crack up*= matar-se de rir
- *hint*= dica
- *funny*= engraçado
- *thinkers*= pensadores
- *to fathom*= compreender
- *to fear*= temer, recear
- *to disrupt*= desintegrar, romper
- *to arise*= aumentar
- *surprising*= surpreendente
- *punch line*= parte final da piada, onde está a graça
- *to work*= funcionar
- *lately*= ultimamente
- *though*= contudo
- *band of researches*= uma porção de pesquisas
- *to remedy*= curar, remediar
- *to probe*= examinar, sondar
- *to tickle*= fazer cócegas
- *paroxysms of laughter*= ataques de riso
- *to tackle*= lidar com
- *behavior*= comportamento
- *roots*= raízes
- *likely*= provavelmente
- *to pant*= ofegar
- *to inhale*= inspirar
- *to exhale*= expirar
- *to realize*= perceber, compreender
- *reason*= razão
- *a string of*= uma série de
- *to chop up*= separar, cortar
- *bursts*= rajadas
- *speech*= fala
- *apes*= macacos
- *titters*= risos sufocados, abafados
- *clues*= pistas
- *attempt*= tentativa
- *to ingratiate oneself*= engrajar-se
- *lower castes*= castas inferiores
- *to giggle*= dar risada
- *the other way round*= ao contrário, de outro modo
- *samples*= amostras
- *by far*= sem dúvida, de longe
- *remarks*= observações
- *witless*= estúpido, tolo
- *jokes*= piadas
- *bouts*= ataques, acessos
- *to evolve*= evoluir
- *to raise*= aumentar
- *heart rate*= ritmo cardíaco
- *as much as*= tanto quanto
- *to lessen*= diminuir
- *pain*= dor
- *to increase*= aumentar

As lacunas **I**, **III**, **VII** e **IX** devem ser preenchidas respectiva e corretamente por:

- a) that ; which ; where ; what
- b) what ; whom ; that ; where
- c) where ; who ; whose ; whose
- d) which ; whose ; when ; which
- e) who ; that ; which ; that

Resolução

- **which** = pronome relativo: *que (coisa)*
- **whose** = pronome relativo: *cujo (posse)*
- **when** = *quando (tempo)*
- **which** = pronome relativo: *que (coisa)*

22 e

As lacunas **II** e **IV** devem ser preenchidas respectiva e corretamente por:

- a) are trying ; is turning
- b) tries ; was turned
- c) is being trying ; turns
- d) has trying ; turned
- e) has been trying ; have turned

Resolução

- **has been trying** = *vem tentando; Present Perfect Continuous: ação que começou no passado e se estende até o presente.*
- **have turned** = *recorreram a; Present Perfect: tempo indefinido no passado.*

23 e

As lacunas **V**, **VI** e **VIII** devem ser preenchidas respectiva e corretamente por:

- a) don't resemble ; seem ; entwines
- b) isn't resembling ; has seemed ; entwining
- c) aren't resembling ; have seemed ; was entwined
- d) didn't resemble ; isn't seeming ; entwine
- e) doesn't resemble ; seems ; entwined

Resolução

- **doesn't resemble** = *não parece: Simple Present*
- **seems** = *parece: Simple Present*
- **entwined** = *entrelaçado, misturado*

24 c

According to the text, if you **fathom** (line 02) something:

- a) you feel bitter or indignant about it and often express this in what you say or how you behave.
- b) you say that you will have nothing to do with it.
- c) you understand it as a result of thinking carefully about it.
- d) you speak critically about it because you disapprove of it.
- e) you make it clearer and more detailed in your mind, usually by speaking or writing about it.

Resolução

• **to fathom**= *entender, compreender*

25 a

According to the text, if you **eavesdrop** (line 27):

- a) you listen to what other people are saying without them knowing that you are doing so.
- b) you mean that you are unable to say anything because someone else is talking so much.
- c) you repeat words or sounds which the other person has just said or made.
- d) you express an opinion rather than stating facts, especially in an article which is supposed to be reporting facts rather than giving opinions.
- e) you take action in a situation that did not originally involve you, especially in order to prevent conflict between two people or groups.

Resolução

• **to eavesdrop**= *bisbilhotar*

26 b

O significado da expressão **the other way round** (linha 32) no texto é:

- a) às vezes
- b) ao contrário
- c) de cabeça para baixo
- d) ao redor
- e) da mesma maneira

Resolução

• **the other way round**= *ao contrário*

27 d

O texto deixa claro que:

- a) O som do riso emitido por um chimpanzé é exatamente igual ao som do riso humano.
- b) Ouvir a conversa das pessoas bloqueia o reflexo neurológico do hipotálamo, forçando a pessoa a rir quando o assunto é engraçado.
- c) Se os macacos podem rir hoje, eles deverão, no futuro, ter a capacidade de falar caso sejam estimulados.
- d) Os homens riem das mulheres menos que as mulheres riem dos homens.
- e) Robert Provine acredita que Platão e Aristóteles tinham a resposta para o fenômeno do riso.

28 b

De acordo com o texto, conclui-se que:

- a) A medicina estuda a importância do bom humor e dos sentimentos positivos. O médico Robert Provine está desenvolvendo uma pesquisa na Universidade de Maryland, baseado no ditado popular : "rir é o melhor remédio."
- b) Boas risadas podem ter o efeito de uma sessão de ginástica (quando o ritmo cardíaco se acelera),

sendo capazes ainda de amenizar a sensação de dor e de desconforto.

- c) Estudos realizados com 1.200 pessoas comprovam que a risada em excesso reduz a liberação dos hormônios, enfraquecendo todas as defesas do organismo, com um menor bombeamento de sangue promovido pelo coração.
- d) A idéia de que o humor pode servir de tratamento médico é antiquíssima. Platão dizia que a alegria dilatava e aquecia o organismo; Kant, ao contrário, afirmava que a gargalhada contraía e esfriava o corpo.
- e) As investigações sobre as contribuições do riso para a saúde são relativamente novas. O neurocientista Robert Provine afirma em seu livro "Laughter: A Scientific Investigation" que os doentes submetidos às sessões de risada recuperam-se mais rapidamente. Os chimpanzés, por outro lado, mesmo doentes, não se recuperam com essa prática.

29 a

Indicate the alternative that best completes the following sentence.

"If I _____ my raincoat, I _____ a cold."

- a) had worn - wouldn't have gotten
- b) wear - would have get
- c) didn't wear - wouldn't have get
- d) am wearing - would have gotten
- e) hadn't wear - couldn't have get

Resolução

• If I **had worn** my raincoat, I **wouldn't have gotten** a cold= Se eu **tivesse usado (colocado)** minha capa de chuva, eu **não teria pegado** resfriado.

Oração condicional (tipo 3): Past Perfect (had worn) + Conditional Perfect (wouldn't have gotten)

30 c

Indicate the alternative that best completes the following sentence.

"Paulo knows how to drive a truck and _____."

- a) Mark does neither
- b) either does Mark
- c) so does Mark
- d) nor does Mark
- e) Mark does either

Resolução

Paulo knows how to drive a truck and **so does Mark**= Paulo sabe dirigir caminhão e **Mark também**.

so + verbo auxiliar + sujeito= estrutura usada para ligar frases positivas.