

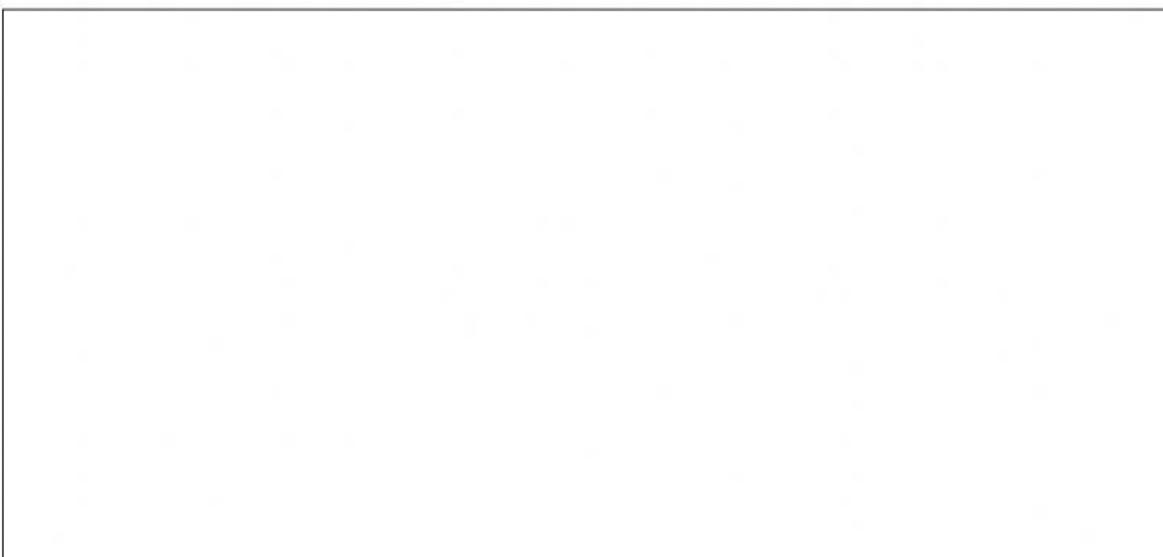


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#### **Hit me one more time**

Any visitor to Las Vegas knows that sinking feeling: why am I still betting when I know I'm going to lose even more? Conspiratorial excuses abound: the dealer's dodgy; casinos are a fountain of free drink; the oxygen levels are brought down to impair judgment; the inside of a gambling hall looks the same day and night so one can't keep track of time. But a team of scientists has now come up with a better answer: our brains release dopamine – the feel-good chemical – when we receive an unexpected reward. So we keep on betting.



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1- Recompensa: \_\_\_\_\_

5- Salão de jogos de azar: \_\_\_\_\_

2- Libera: \_\_\_\_\_

6- Mencionaram: \_\_\_\_\_

3- Ainda mais: \_\_\_\_\_

7- Apostando: \_\_\_\_\_

4- Aumentam: \_\_\_\_\_

Following on from the theory proven by Ivan Petrovich Pavlov and his famous dogs (expectancy of a reward **leads** to increased physical stimulus – in the dogs' case, **drooling**), scientist Christopher Fiorillo and a team of colleagues recently **conducted** tests on monkeys at the University of Fribourg in Switzerland. They wanted to see if the **lack of** that expectancy could also play a factor in the **triggering** of neurons containing dopamine.

8- Falta de: \_\_\_\_\_

9- Provoca (gatilho): \_\_\_\_\_

10- Babando: \_\_\_\_\_

11- Conduzido: \_\_\_\_\_

12- Leva: \_\_\_\_\_

The monkeys looked at various **sets of** images, after which they were trained to expect **a treat** (a drop of juice) according to which image was **displayed**. As expected, when they received that anticipated reward, dopamine surges were detected. But Fiorillo and his team found that dopamine levels increased **even more** as they reduced the certainty of reward. Their results were published to much scientific acclaim last week in the journal **Science**. According to Fiorillo, this could be a reason why humans still excitedly gamble **even when** we know the house will win – our sense of reasoning is clouded by the possibility of **even greater** pleasure from the unlikely reward. Of course, telling that to the guy who just **mortgaged** his house for a hand of **blackjack** might not be a risk worth taking, regardless of the reward.

13- Mesmo quando: \_\_\_\_\_

18- Um agrado: \_\_\_\_\_

14- Conjunto de: \_\_\_\_\_

19- Ainda maior: \_\_\_\_\_

15- Ainda mais: \_\_\_\_\_

20: Jogo 21 \_\_\_\_\_

16- Hipotecou: \_\_\_\_\_

17- Mostrada: \_\_\_\_\_

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1. According to the text, casino gamblers:

  - a) usually keep on betting even though they know that they'll lose, because casinos get their customers drunk in order to take money from them.
  - b) generally keep on betting, even though they know that they'll lose, and they generally blame the casinos for their losses.
  - c) are always caught by a dodgy dealer or have their judging capacity reduced by the oxygen-low environment of the casinos, which explains why they lose so much money.
  - d) seldom have conspiratorial excuses to explain why they lose so much money, but the truth is that they suffer from a psychological dependence of dopamine.
  - e) will never be able to win money, for the casinos have numerous ways to reduce the customer's chance, like offering free drinks or bringing down the level of oxygen.
2. Considering the sentence "*But a team of scientists has now come up with a better answer: our brains release dopamine...*", we may say that:

  - a) the author considers the scientific explanation an additional excuse to those ones given by the gamblers.
  - b) the scientific answer, in the author's opinion, doesn't take the credit away from those conspiratorial excuses.
  - c) the dopamine release, according to the author, explains why the casinos lower the oxygen levels: they try to affect the customer chemically.
  - d) the author considers the scientific explanation better than the conspiratorial excuses and believes in it.
  - e) the opinion of the author goes against the scientific explanations, once he believes that dopamine has nothing to do with gambling.
3. We may infer from the text that:

  - a) the type of research conducted by Fiorillo and his team wasn't totally original, considering Pavlov's preceding experiments.
  - b) the discovery of the extra dopamine release isn't exactly new, considering that Pavlov had already discovered that type of reaction in dogs.
  - c) the type of research made by Pavlov has set up a pattern for all types of scientific researches made nowadays by any scientist.
  - d) the results arrived at by Fiorillo and his team, following Pavlov's previous experience about the same kind of problem, may save all people from losing money in casinos.
  - e) the new research, considering the releasing of dopamine, is completely original, only the results are very close to the ones arrived at by Pavlov.
4. In the sentence "*They wanted to see if the lack of that expectancy could also play a factor...*" (2<sup>nd</sup> paragraph), what kind of expectancy is the author talking about?

  - a) Expectancy of getting a drop of juice.
  - b) Expectancy of winning money.
  - c) Expectancy of reward.
  - d) Drooling expectancy.
  - e) Expectancy of dopamine.
5. According to the 3<sup>rd</sup> paragraph:

  - a) it was already expected that the lack of certainty of reward would cause dopamine levels to increase substantially.
  - b) no one expected that the dopamine levels would actually increase because of the anticipation of a reward.
  - c) anticipating the reward, according to the scientists, was already expected to increase the dopamine levels, but it didn't happen with the monkeys.
  - d) the dopamine surges, a natural consequence of the reward expectancy, start to decrease as the reward becomes less certain.
  - e) the less certain a reward becomes, the more the brain releases dopamine.
6. According to Fiorillo:

  - a) the research provided an unquestionable evidence about the reason why people keep on gambling, and thus answered the question completely.
  - b) there is nothing more to be researched about the human gambling, given that the experiments have provided all the answers to the possible questions.
  - c) the experiments provided a good set of information toward explaining the human gambling behavior.
  - d) once the experiment was made using monkeys, it has no value whatsoever to explain human behavior.
  - e) once monkeys are closely related to humans, we may say that all the results arrived at with primates have full equivalence to explaining human behavior.

7. The sentence "... our sense of reasoning is clouded by the possibility of even greater pleasure from the unlikely reward" could be rewritten as:

- a) the possibility of even greater pleasure from the unlikely reward clouds our sense of reasoning.
- b) the possibility of even greater pleasure from the unlikely reward clouded our sense of reasoning.
- c) the possibility of even greater pleasure from the unlikely reward has clouded our sense of reasoning.
- d) the possibility of even greater pleasure from the unlikely reward had clouded our sense of reasoning.
- e) the possibility of even greater pleasure from the unlikely reward is clouding our sense of reasoning.

8. Consider the following sentences from the text:

- 1) ... why am I still betting when I know I'm going to lose *even* more?
- 2) ... dopamine levels increased *even* more...
- 3) ... a reason why humans still excitedly gamble *even* when we know...
- 4) ... the possibility of *even* greater pleasure...

The word **even** in the sentences suggests:

- a) comparison in all the sentences.
- b) surprise in all the sentences.
- c) comparison in sentences 1, 2 and 4.
- d) surprise in sentences 2 and 4.
- e) rather surprising term in sentences 2, 3 and 4.

BET

## Gambling

DICE

HIT

Y O U E T I H T F R I M Y G Y

MONKEY

V E V J S I N B E P F Q W Z X

TREAT

L E K A A H P W P L B O H V Y

BLACKJACK

N F P N J T A Q F E Z M I D H

DROOL

D T T V O R M O N E Y L N W U

LACK

X Y X G D M C C Q R F R A D R

MORTGAGE

TRIGGER

DEALER

EVEN

S K W E Z J M U H G Y T R E K

MONEY

REWARD

K C W Z U Q F M R X Z E G H X

U X S R L S X T T T Y R G U M

T P T O D A M X A R G T E D C

Y E O M I E S K V J W A R Y Z

N R B Q C B R E L A E D G V Y

D X G P E Q X B A K B P N E O