

What are Weight-Loss Drugs Doing to your Brain?

The Caribbean island of St. Kitts has a drinking problem. But it's not the people who like to overindulge – it's the island's monkeys, who've become notorious for sipping on cocktails stolen from tourists. A few years ago, however, Prof. Anders Fink-Jensen travelled to St Kitts to see if he could learn something from the monkeys about helping humans to kick the habit. How? By giving them Ozempic.

The University of Copenhagen psychiatrist discovered that, given free access to all the local rum they could quickly drink, monkeys on the weight-loss drug drank significantly less than those given a placebo. Ozempic put a stopper in their drinking habits. Why? The short answer is we don't know, exactly. But we do know that, like the monkeys, some people on weight-loss jabs report drinking less. Users of semaglutide say they also smoke or vape less. And they report having fewer persistent thoughts about food. But some users claim they've been left feeling flat and joyless on GLP-1s, a feeling that's been labelled 'anhedonia'. This figures if, as scientists suspect, they curb addiction.

At the same time, evidence is building for possible benefits to a broad range of psychiatric and neurological problems, from depression to dementia. While some of this sounds positive, there's still so much we don't know. For a start, semaglutide and other drugs classed as GLP-1s are only really tested in people with diabetes or obesity. Would they be as safe and effective in those with mental health issues? How exactly *do* they work? And, crucially, how might they change our moods – and even our personalities? The race is on to find the answers. And with so many already on the jabs – an estimated ten million in the US alone – there's a lot of people's mental health at stake.

Much of the evidence accumulated on weight loss drugs and mental health so far suggests they make us feel better. And, in a sense, that's exactly what we'd expect. It seems obvious that those of us who spent years beating ourselves up about our extra baggage are going to feel better when we're suddenly able to slip into an old pair of jeans. University of Cambridge neuroendocrinologist Prof. Giles Yeo thinks so. "Losing the weight already puts a positive spin on life," he says, agreeing that much of the benefit probably does come from the weight loss. But like others in the field, he's inclined to believe there's something else going on. Something tied up with the dopamine circuit – the brain's reward system, which can get out of whack in addictive behaviors – that we don't quite understand yet.

At the University of Oxford, psychiatrist Dr Riccardo De Giorgi and his team believe they may be close that something. They've just finished a small study in which 70 volunteers completed specially designed computer-based tasks one week after getting a jab of semaglutide. The tasks assessed, partly, the jab's effect on volunteers' reward processing – their motivation and willingness to put in the effort to 'win'. The results aren't published yet, but De Giorgi says they may offer "quite convincing evidence" of how even a single shot of GLP-1s can affect the brain's reward system. Meanwhile, evidence for GLP-1s in action in those plagued by addiction continues to mount beyond monkey studies.

In 2025, for example, a US team showed in a clinical trial that semaglutide reduces alcohol cravings as well as the amount that heavy drinkers consume on their drinking days. And Fink-Jensen is due to publish results from another trial testing Wegovy (semaglutide) in heavy drinkers with obesity. But none of these studies reveal what GLP-1s are actually doing in the brain. If studies in lab rats and mice are anything to go by, then the suggestion is that they curb our appetite for addictive substances like alcohol, nicotine and cocaine by essentially reducing the hit – the chemical dopamine reward – that our brains get from them. As Fink-Jensen points out, though, such studies haven't been well-replicated in humans. "We thought we figured it out, but when we did it in humans the story became much more complicated," he says.

It now seems unlikely it's as simple as so-called 'dopamine dampening', a phenomenon in which it's assumed a reduction in dopamine production saps enjoyment from food and, potentially, everything else. If weight loss drugs are doing *anything* in the dopamine circuit, it could be a concern because these neurons are considered the center of our enjoyment in life's great pleasures, from food and drink to sex.

FONTE: Adaptado de: H. Bennet. **"We have no freaking clue' what weight-loss drugs are doing to your brain, warns Cambridge professor"**. Disponível em: <https://www.sciencefocus.com/wellbeing/weight-loss-drugs-mental-health>. Acesso em 21 set 2026.

TEXTO 2

'The tactics of a master mischief-maker': The hidden history of a controversial \$6m banana

By sticking a banana to a wall with silver duct tape and calling it art, Maurizio Cattelan created one of the greatest cultural controversies of recent times. But **the story behind *Comedian* reveals centuries of notoriety and shock tactics in art.** Leonardo DiCaprio, Michael Bay and Travis Scott were among the celebrities at the VIP opening of Art Basel Miami Beach on 4 December 2019, the day that *Comedian* made its first appearance. But for Sarah Cascone, a reporter for Artnet News, the key attraction was Cattelan's latest artwork: a banana stuck to the wall with duct tape. Two editions of the fruit-based artwork sold for \$120,000 each, and the third and final edition was bought for \$150,000. Each buyer received a certificate of authenticity and instructions on how to display it, including the need to replace the banana regularly.

Throughout Art Basel Miami Beach, hundreds of visitors photographed the artwork and posted their reactions online. Within just a few days, *Comedian* had become a viral sensation, attracting scorn, amazement and laughter. In the mainstream press, blogs and YouTube videos, people debated its aesthetic and intellectual value. Few other works of contemporary art have done what *Comedian* achieved in just a few hours: gaining fame beyond the art world and becoming globally recognisable. Its renown helped increase its market value. In 2024, the second of the three editions of *Comedian* was resold at auction for \$6.24m. This once again triggered criticism over the amount of money being spent on Cattelan's artwork. Yet the irony about *Comedian* is that everything that shocked people about it had been done before. One of Cattelan's strategies is provocation. He realised that in the competitive creative industries, just being skilled or intelligent doesn't guarantee success. But sparking controversy attracts attention, which means a bigger audience and more potential commissions.

Art history proves the point. More than 400 years ago, Caravaggio split the opinions of his contemporaries with the groundbreaking levels of violence, sexual tension and darkness of his religious paintings, factors that brought him to international prominence. The artists of the 19th Century who are nowadays most valorised had pioneered new approaches to art-making, which reaped public ridicule from critics. As a result, artistic innovation and mainstream scorn were increasingly seen as two sides of the same coin. But Cattelan's brand of controversy is different to his forebears because it isn't about artistic process or theory. His most notorious artworks, like 1999's *La Nona Ora* (a figure of Pope John Paul II struck by a meteorite) and *Him* from 2001 (a praying schoolboy with the face of Adolf Hitler), are based on internationally familiar subjects, the kind of things that people who don't usually frequent art exhibitions will recognise instantly.

There's nothing elitist or difficult to understand about either of them. They use humour and irony to “punch upwards”, asking questions about powerful individuals. In doing so, Cattelan follows an art historical tradition of satire, following pioneers like James Gillray and Honoré Daumier, who targeted universally identifiable institutions to question and lampoon their power. In *A Perfect Day* (1999), the institution in Cattelan's crosshairs was the art market itself. Instead of placing an artwork on the wall, Cattelan stuck his Milan art dealer, Massimo De Carlo, to it with duct tape. The seller became the spectacle. *Comedian*, unveiled almost exactly 20 years later, used identical silver tape. This choice signalled that, like *A Perfect Day*, *Comedian*'s aim was to mock the values of art-world events like Art Basel Miami Beach.

So, why a banana? Many artists before Cattelan had depicted bananas in their work. It is a disarmingly familiar object, and the notion of depicting a foodstuff as a work of art has a venerable history in the form of the still life, an established genre of art since the 1500s. Traditionally, still-life artworks such as Jacopo de' Barbari's *Still-Life with Partridge and Gauntlets* (1501) were supposed to make viewers think about the brief life span of natural life, and how art can make it endure beyond death. De' Barbari's and Cattelan's artworks, although made more than 500 years apart, reveal two essentially identical gestures: objects placed on a wall for a viewer's contemplation. **Cattelan's tactic here is the “shock of the old”.** The only difference is that *Comedian* displays an actual banana, which can rot over the course of around seven days, rather than an artistic representation.

But here again, tradition preceded Cattelan. The idea of using a “readymade” — objects from the real world, not crafted by an artist, but presented as art — was more than 100 years old by the time of *Comedian*. The most renowned pioneer of this method was Marcel Duchamp, who displayed everyday objects like bottle racks, bicycle wheels and a urinal as art objects in the 1910s. His work questioned the fundamental principles of “art” as a category. If anything, resorting to a readymade is a rather quaint gesture from Cattelan, and well within the guardrails of art historical tradition. *Comedian* was always calculated to cause a stir. By the age of 61, Maurizio had become a fully adept provocateur who could generate debate and astonishment from a banana, a wall and duct tape. Beneath the surface are other essential ingredients — controversy, satire, recognisability, the still-life tradition and the “readymade”. The radical truth about *Comedian* is that there's nothing truly radical about it at all.

QUESTÕES**As questões de 1 a 5 referem-se ao TEXTO 1:**

1. Segundo o Professor Giles Yeo, parte dos benefícios dos medicamentos para perda de peso pode estar relacionada ao/à

- (A) aumento da motivação para realizar atividades que exigem esforço.
- (B) eliminação dos pensamentos persistentes relacionados à alimentação.
- (C) própria perda de peso, que pode contribuir para uma visão mais positiva da vida.
- (D) redução da produção de dopamina no cérebro.

2. O estudo realizado pela equipe da Universidade de Oxford mencionado no texto tinha como objetivo investigar os/a

- (A) efeitos da semaglutida sobre o processamento de recompensas no cérebro.
- (B) efeitos de diferentes medicamentos sobre o consumo de álcool.
- (C) eficácia da semaglutida no tratamento da demência em idosos.
- (D) relação entre perda de peso e melhora da autoestima dos participantes.

3. De acordo com o texto, os estudos realizados com ratos e camundongos sugerem que os medicamentos GLP-1 podem

- (A) aumentar a produção de dopamina associada ao consumo de substâncias.
- (B) eliminar completamente o desejo por álcool, nicotina e cocaína.
- (C) produzir nos animais os mesmos efeitos sobre o cérebro observados em seres humanos.
- (D) reduzir a recompensa química associada ao consumo de substâncias que podem causar dependência.

4. Explique como foi realizado o experimento com os macacos em St. Kitts e qual foi o principal resultado observado pelo pesquisador.

5. Por que os pesquisadores ainda não sabem exatamente como os medicamentos GLP-1 afetam o cérebro humano?

As questões de 6 a 10 referem-se ao TEXTO 2:

6. Justifique a afirmativa "the story behind *Comedian* reveals centuries of notoriety and shock tactics in art.", em destaque no 1º parágrafo, citando 2 exemplos encontrados no texto.

7. Analise as afirmativas abaixo sobre a obra *Comedian* de Maurizio Cattelan:

- I. A obra de arte ficou conhecida, em parte, porque gerou fortes reações do público e na mídia.
- II. O uso de uma banana foi apresentado como uma prática artística sem precedentes.
- III. O alto valor de revenda da obra em 2024 demonstrou que seu sucesso financeiro não estava relacionado à controvérsia que a envolvia.
- IV. A obra combina humor e ironia, aproximando-se das tradições da sátira e do *ready-made*.

É CORRETO o que se afirma em:

- (A) I e IV, apenas.
- (B) II e III, apenas.
- (C) II, III e IV, apenas.
- (D) I, II e IV, apenas.

8. De acordo com o texto, como a estratégia de provocação nas obras de Cattelan se diferencia da de seus antecessores?

9. O que *A Perfect Day* e *Comedian* têm em comum, além do uso da fita adesiva?

- (A) Ambas foram concebidas como críticas diretas à natureza-morta e ao conceito de *readymade*.
- (B) Ambas procuram demonstrar que objetos cotidianos possuem maior valor artístico do que pinturas tradicionais.
- (C) Ambas utilizam o humor e a provocação para questionar os valores e as práticas do mercado de arte.
- (D) Ambas utilizam a provocação principalmente para questionar instituições religiosas e figuras políticas.

10. Na frase “Cattelan’s tactic here is the shock of the old”, em destaque no 5º parágrafo, a expressão “shock of the old” sugere que Cattelan

- (A) rejeitou as convenções artísticas tradicionais e preferiu técnicas sem precedentes.
- (B) tentou reproduzir as características estéticas da pintura de natureza-morta renascentista.
- (C) chocou o público expondo o fato de que os artistas contemporâneos tinham se desconectado da história da arte.
- (D) retomou uma prática artística estabelecida, apresentando-a, porém, de uma forma que parecia inovadora e provocativa.

RASCUNHO

CHAVE DE RESPOSTAS

QUESTÃO	
1	☐ A ☐ B ☒ C ☐ D
2	☒ A ☐ B ☐ C ☐ D
3	☐ A ☐ B ☐ C ☒ D
4	Os pesquisadores deram Ozempic a alguns macacos que tinham acesso livre ao rum, enquanto outros receberam placebo. Os que receberam Ozempic beberam significativamente menos álcool do que aqueles que receberam placebo, o que sugere que o medicamento pode reduzir o consumo de álcool.
5	Os pesquisadores ainda não sabem exatamente como os GLP-1s afetam o cérebro humano porque os estudos ainda não explicaram completamente seu mecanismo de ação, e os resultados de estudos em animais não foram bem reproduzidos em humanos, sendo que, nos humanos, o efeito parece ser mais complexo do que se imaginava. Além disso, os GLP-1s foram testados principalmente em pessoas com diabetes ou obesidade, e ainda não se sabe se são seguros e eficazes para pessoas com questões de saúde mental.
6	Para justificar a afirmativa, o/a candidato/a pode mencionar 2 dos seguintes exemplos encontrados no texto: Caravaggio, há mais de 400 anos, dividiu as opiniões de seus contemporâneos com os níveis inovadores de violência, tensão sexual e escuridão em suas pinturas religiosas. Artistas do século XIX que foram pioneiros em novas abordagens artísticas, as quais provocaram uma ridicularização pública dos críticos. Cattelan segue a tradição histórica da sátira e pioneiros dessa arte como James Gillray e Honoré Daumier, que utilizavam humor e sátira para questionar e ridicularizar instituições e figuras de poder. A obra <i>A Perfect Day</i> (1999) de Cattelan para criticar o próprio mercado de arte ao prender seu galerista, Massimo De Carlo, à parede com fita adesiva, transformando o vendedor em espetáculo. Obras de arte da natureza-morta como a de Jacopo de' Barbari's <i>Still-Life with Partridge and Gauntlets</i> (1501) que deveriam fazer o espectador pensar sobre a brevidade da vida natural e como a arte pode fazê-la durar além da morte. O <i>readymade</i> de Marcel Duchamp que mostrava objetos cotidianos, como suportes para garrafas, rodas de bicicleta e um urinol, como obras de arte na década de 1910. Seu trabalho questionava os princípios fundamentais da arte como categoria.
7	☒ A ☐ B ☐ C ☐ D

CHAVE DE RESPOSTAS

8	De acordo com o texto, a estratégia de provocação de Cattelan se diferencia da de seus antecessores porque não está relacionada ao processo artístico ou à teoria da arte. Em vez disso, ele utiliza temas reconhecíveis, humor e ironia para provocar o público e questionar figuras e instituições de poder.
9	☐ A ☐ B ☒ C ☐ D
10	☐ A ☐ B ☐ C ☒ D