

# Why some pain helps us feel pleasure

February 23 2015, by Brock Bastian

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We need pain to provide a contrast for pleasure. Credit: Joshua Stearns/Flickr, CC BY-NC-ND

The idea that we can achieve happiness by maximising pleasure and minimising pain is both intuitive and popular. The truth is, however, very different. Pleasure alone cannot not make us happy.

Take Christina Onassis, the daughter of shipping tycoon Aristotle Onassis. She inherited wealth beyond imagination and spent it on extravagant pleasures in an attempt to alleviate her unhappiness. She

died at 37 and her biography, tellingly subtitled [All the Pain Money Can Buy](#), recounts a life full of mind-boggling extravagance that contributed to her suffering.

Aldous Huxley recognised the possibility that endless pleasure may actually lead to dystopian societies in his 1932 novel [Brave New World](#). Although the idea of endless pleasure seems idyllic, the reality is often very different.

We need [pain](#) to provide a contrast for pleasure; without pain life becomes dull, boring and downright undesirable. Like a chocoholic in a chocolate shop, we soon forget what it was that made our desires so desirable in the first place.

Emerging evidence suggests that pain may actually enhance the pleasure and happiness we derive from life. As my colleagues and I recently outlined in the journal [Personality and Social Psychology Review](#), pain promotes pleasure and keeps us connected to the world around us.

## **Pain builds pleasure**

An excellent example of how pain may enhance pleasure is the experience commonly referred to as "the runners high". After intense physical exertion, [runners experience](#) a sense of euphoria that has been linked to the production of opioids, a neurochemical that is also released in response to pain.

[Other work](#) has shown that experiencing relief from pain not only increases our feelings of happiness but also [reduces our feelings](#) of sadness. Pain may not be a pleasurable experience itself, but it builds our pleasure in ways that pleasure alone simply cannot achieve.

Pain may also make us feel more justified in rewarding ourselves with

pleasant [experiences](#). Just think how many people indulge themselves a little after a trip to the gym.

My colleagues and I [tested this possibility](#) by asking people to hold their hand in a bucket of ice-water and then offered them the choice of either a Caramello Koala or a florescent highlighter to take with them as a gift.

Participants who did not experience any pain chose the highlighter 74% of the time. But those who had pain only chose it 40% of the time – they were more likely to take the chocolate. Pain, it seems, can make chocolate guilt-free!

## **Pain connects us to our world**

People are constantly seeking new ways to clear their minds and connect with their immediate experiences. Just think of the popularity of mindfulness and mediation exercises, both of which aim to bring us in touch with our direct experience of the world.

There is good reason to believe pain may be effective in achieving this same goal. Why? Because pain captures our attention.

Imagine dropping a large book on your toe mid conversation. Would you finish the conversation or attend to your toe? Pain drags us into the moment and after pain we are more alert and attuned to our sensory environment – less caught up in our thoughts about yesterday or tomorrow.

My colleagues and I [recently tested](#) whether this effect of pain may also have some benefits. We asked people to eat a Tim Tam chocolate biscuit after holding their hand in a bucket of ice-cold water for as long as they could. We found that people who experienced pain before eating the Tim Tam enjoyed it more than those who did not have pain.

In two follow-up studies, we showed that pain increases the intensity of a range of different tastes and reduces people's threshold for detecting different flavours. One reason people enjoyed the Tim Tam more after pain was because it actually tasted better – the flavour they experienced was more intense and they were more sensitive to it.

Our findings shed light on why a Gatorade tastes so much better after a long hard run, why a cold beer is more pleasant after a day of hard labour, and why a hot chocolate is more enjoyable after coming in from the cold.

Pain literally brings us in touch with our immediate sensory experience of the world, allowing for the possibility that pleasures can become more pleasant and more intense.

## **Pain bond us with others**

Anyone who has experienced a significant disaster will know that these events bring people together. Consider the [55,000 volunteers](#) who helped clean up after the 2011 Brisbane floods or the sense of [community spirit](#) that developed in New York in response to 911.

Painful ceremonies have been used throughout history to create cooperation and cohesion within groups of people. A [recent study](#) examining one such ritual – the kavadi in Mauritius – found that participants who experienced pain were more likely to donate money to a community cause, as were those who had simply observed the ceremony. The experience of pain, or simply observing others in pain, made people more generous.

Building on this work, my colleagues and I [had people experience pain](#) in groups. Across three studies, again, participants either immersed their hand in ice-water and held a squat position for as long as they could, or

ate very hot raw chilies.

We compared these experiences to a no-pain control condition and found pain increased cooperation within the group. After sharing pain, people felt more bonded together and were also more cooperative in an economic game: they were more likely to take personal risks to benefit the group as a whole.

## **A different side of pain**

Pain is commonly associated with illness, injury or harm. Often we don't see pain until it is associated with a problem and in these cases pain may have few benefits at all. Yet, we also experience pain in a range of common and healthy activities.

Consider the recent ALS (amyotrophic lateral sclerosis) [ice-bucket challenge](#). By dousing ourselves in ice water we were able to raise unprecedented support for a good cause.

Understanding that pain can have a range of positive consequences is not only important for better understanding pain, but may also help us manage pain when it does become a problem. Framing pain as a positive, rather than negative, [increases neurochemical responses](#) that help us better manage pain.

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Citation: Why some pain helps us feel pleasure (2015, February 23) retrieved 26 April 2024 from <https://medicalxpress.com/news/2015-02-pain-pleasure.html>

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