

Top Science Podcasts

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Now Playing: [TED Radio Hour](#)

In & Out Of Love

We think of love as a mysterious, unknowable force. Something that happens to us. But what if we could control it? This hour, TED speakers on whether we can decide to fall in & and out of a love. Guests include writer Mandy Len Catron, biological anthropologist Helen Fisher, musician Dessa, One Love CEO Katie Hood, and psychologist Guy Winch.



Now Playing: [Science for the People](#)

#541 Wayfinding

These days when we want to know where we are or how to get where we want to go, most of us will pull out a smart phone with a built-in GPS and map app. Some of us old timers might still use an old school paper map from time to time. But we didn't always used to lean so heavily on maps and technology, and in some remote places of the world some people still navigate and wayfind their way without the aid of these tools... and in some cases do better without them. This week, host Rachele Saunders...



Now Playing: [Radiolab](#)

Breaking Bongo

Deep fake videos have the potential to make it impossible to sort fact from fiction. And some have argued that this blackhole of doubt will eventually send truth itself into a death spiral. But a series of recent events in the small African nation of Gabon suggest it's already happening. Today, we follow a ragtag group of freedom fighters as they troll Gabon's president - Ali Bongo - from afar. Using tweets, videos and the uncertainty they can carry, these insurgents test the limits of using truth to create political change and, confusingly, force us to ask: Can fake news be used for good? This episode was reported and produced by Simon Adler. Support Radiolab today at Radiolab.org/donate.



Hormonal contraceptives affect the efficacy of exposure therapy

October 29, 2019

Psychologists at Ruhr-Universität Bochum have studied in what way hormonal contraceptives affect the efficacy of anxiety therapy. They demonstrated that women who were on the pill benefitted less from exposure therapy than women who didn't take any oral contraceptives. Friederike Raeder, Professor Armin Zlomuzica and colleagues describe the results in the *Journal of Psychiatric Research*, published online on 28 September 2019.

In their study, the researchers included 28 women who used hormonal contraception and 26 who didn't take any oral contraceptives. All participants suffered from arachnophobia and took part in the same treatment at Zentrum für Psychotherapie (psychotherapy centre) in Bochum. During exposure therapy, they gradually learned to approach spiders.

Subjective and objective gauges of arachnophobia

The researchers assessed the participants' symptom severity with the aid of different arachnophobia questionnaires. In addition, the women underwent a so-called behavioural approach task. To this end, they were asked to approach a spider in a terrarium as closely as possible - the distance is a gauge for avoiding the phobic object.

The tests took place prior to exposure therapy, immediately after treatment, and once again six weeks later.

In all participants, the symptom severity was reduced through therapy. Moreover, all women approached the terrarium with the spider more closely after undergoing treatment than prior to therapy. Six weeks after treatment, however, symptom severity in women who didn't use hormonal contraception decreased to a greater extent than in women who took oral contraceptives. Accordingly, the benefits of exposure therapy were much more pronounced in patients who didn't take hormonal contraception.

Estradiol level might affect central learning processes

"These results might be caused by the fact that oral contraceptives affect central learning and memory processes in exposure therapy," says Armin Zlomuzica. Researchers suppose that exposure therapy is based on so-called extinction learning, where previously learned associations between stimuli and phobic reactions are unlearned.

Animal and human studies conducted by other research groups had shown that extinction learning is impaired by the administration of oral contraceptives. One of the reason for this might be the reduced estradiol level due to hormonal contraception.

"The negative influence of oral contraceptives on therapy effectiveness didn't become evident until six weeks later. Our results show that it is necessary to monitor and consider any potential hormonal impact during psychotherapeutic treatment," concludes Armin Zlomuzica. However, it is not yet fully understood in what way the effects of oral contraceptives are communicated on the biological level.

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[Hormonal contraceptives affect the efficacy of exposure therapy](#)

Psychologists at Ruhr-Universität Bochum have studied in what way hormonal contraceptives affect the efficacy of anxiety therapy.

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In a study published in JAMA Psychiatry, investigators report that there was no association between oral contraceptive use and depressive symptom severity in the entire population they studied (ages 16 through 25).

[Assembly of the human oral microbiome age 1 to 12](#)

At the 97th General Session & Exhibition of the International Association for Dental Research (IADR), held in conjunction with the 48th Annual Meeting of the American Association for Dental Research (AADR) and the 43rd Annual Meeting of the Canadian Association for Dental Research (CADR), Ann Griffen, Ohio State University, Columbus, USA, gave an oral presentation on "Assembly of the Human Oral Microbiome Age 1 to 12."

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At the 96th General Session of the International Association for Dental Research (IADR), held in conjunction with the IADR Pan European Regional (PER) Congress, Kai Soo Tan, National University of Singapore, gave a oral presentation titled 'Role of Oral Microbiota in the Severity of Chemotherapy-Induced Oral Mucositis.'

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