

# Those Crazy Russians! Now they can manipulate your thoughts over the internet

Sun, 14 Feb 2016 16:00:00, newstips66, [category: brotopia, category: elon-musk, category: energy-dept-slush-fund, category: google-alphabet, post\_tag: internet-mind-control, post\_tag: internet-subliminal-messages, category: lithium-batteries, post\_tag: state-entity, post\_tag: technology, post\_tag: the-google-case, post\_tag: those-crazy-russians-now-they-can-manipulate-your-thoughts-over-the-internet, category: worldnews]

## **The Most Whack Use of Hacking: Hacking Your Brain Via the Internet!**

Ready for the ultimate extreme hack? We mean, **wayyyy over the top**...and this is the "old Technology", imagine what the modern versions can do. Las Vegas already has companies testing things like this to increase gambling, big Malls use entry-level versions of these technologies to increase sales:

### **Exposed: The Soviet Union spent \$1 billion on mind-control program**

Dr. Bill van Bise, electrical engineer, conducting a demonstration of Soviet scientific data and schematics for beaming a magnetic field into the brain to cause visual hallucinations. Source: CNN Source: Supplied

### **THE race to put man on the Moon wasn't enough of a battle for the global super powers during the Cold War.**

At the time, the Soviet Union and the United States were in an arms race of a bizarre, unconventional kind - that has been exposed [in a new report](#).

Beginning in 1917 and continuing until 2003, the Soviets poured up to \$1 billion into developing mind-controlling weaponry to compete with similar programs undertaken in the US.

While much still remains classified, we can now confirm the Soviets used methods to manipulate test subjects' brains.

[The paper, by Serge Kernbach](#), at the Research Centre of Advanced Robotics and Environmental Science in Stuttgart, Germany, details the Soviet Union's extensive experiments, called "psychotronics". The paper is based on Russian technical journals and recently declassified documents.

Still from *Secret Russia: Moscow The Zombies of the Red Czar*, a German TV documentary, 1998. Source: Supplied

The [paper](#) outlines how the Soviets developed "cerpan", a device to generate and store high-frequency electromagnetic radiation and the use of this energy to affect other objects.

"If the generator is designed properly, it is able to accumulate bioenergy from all living things - animals, plants, humans - and then release it outside," the paper said.

The psychotronics program, known in the US as "parapsychology", involves unconventional research into mind control and remote influence - and was funded by the government.

With only limited knowledge of each other's mind-bending programs, the Soviets and Americans were both participating in similar secret operations, with areas of interest often mirroring the other country's study.

The original scheme of transmitting and receiving bio-circuitry of the human nervous system. Picture: B. B. Kazhinskiy Source: Supplied

**(NOTE: GHH- The Movie: The Matrix, proposed that humans would become batteries for the robots. The soviet "Cerpan" system seems to already be doing that, per this study.)**

The psychotronics project draws similarities to part of the controversial program [MKUltra](#) in the US. The CIA program ran for 20 years, has been highly documented since being investigated in the 1970s and was recently dramatised in the movie *The Men Who Stare at Goats*.

The Men Who Stare at Goats. George Clooney. Picture: Smokehouse Pictures Source: Supplied

Scientists involved in the MKUltra program researched the possibility of manipulating people's minds by altering their brain functions using electromagnetic waves. This program led to the development of psychotronic weapons, which were intended to be used to perform these mind-shifting functions.

The illegal research subjected humans to experiments with drugs, such as LSD, hypnosis and radiological and biological agents. Shockingly, some studies were conducted without the subject's knowledge.

A US Marine Corps truck carries an Active Denial System. It is a nonlethal weapon that uses directed energy and projects a beam of waves up to 1000 metres. When fired at a human, it delivers a heat sensation to the skin and generally makes humans stop what they are doing and run. Source: AAP

[Kernbach's paper](#) on the Soviet Union's psychotronics program fails to mention one thing - the results. He also doesn't detail whether there are ongoing programs in this area in the US or Russia, which became the successor state of the [Russian SFSR](#) following the dissolution of the Soviet Union in 1991, but there are suspicions.

Putin made mention of futuristic weaponry last year in a presidential campaign article.

"Space-based systems and IT tools, especially in cyberspace, will play a great, if not decisive role in armed conflicts. In a more remote future, weapon systems that use different physical principles will be created (beam, geophysical, wave, genetic, psychophysical and other types of weapons). All this will provide fundamentally new instruments for achieving political and strategic goals in addition to nuclear weapons," [he wrote](#).

Example of a generator from the psychotronics program. Source: Supplied

The newly declassified information outlined in the [report](#) only touches on the Soviet psychotronics program and the bizarre experiments undertaken. With so much information still classified, will we ever know the whole truth?

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## Unconventional research in USSR and Russia- By Arkadiusz Jadczyk via Sott.net Sun, 22 Dec 2013

- Posted by [UnitedWeStand](#) on December 26, 2013 at 12:07pm
- [View Blog](#)

[Unconventional research in USSR and Russia -- Science & Technol...](#)

Summary: Unconventional research embraces physics, artificial intelligence and the paranormal.

Cf. 'Billion dollar race: Soviet Union vied with US in 'mind control research'', [Russia Today](http://Russia Today), December 17th, 2013

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The title of this article comes from [a recent paper](#) by Serge Kernbach:

'Unconventional research in USSR and Russia: short overview', Serge Kernbach (Submitted on 4 Dec 2013 (v1), last revised 5 Dec 2013 (this version, v2))

This work briefly surveys unconventional research in Russia from the end of the 19th until the beginning of the 21th centuries in areas related to generation and detection of a 'high-penetrating' emission of non-biological origin. The overview is based on open scientific and journalistic materials. The unique character of this research and its history, originating from governmental programs of the USSR, is shown. Relations to modern studies on biological effects of weak electromagnetic emission, several areas of bioinformatics and theories of physical vacuum are discussed.

Nowadays almost every physicist is monitoring, one way or another, all the new papers in her/his domain of interest. The arxiv site is probably the most popular one among physicists, mathematicians and computer science researchers. It is not completely easy to submit a paper there. Not that there is a peer-review process there, but some kind of endorsement from some "well-established" scientist is needed. Otherwise your paper will not be accepted for pre-publication. Why was Kernbach's paper accepted? Because he has 16 papers already there. And also, probably, because of his affiliation:

*Cybertronica Research, Research Center of Advanced Robotics  
and Environmental Science, Melunerstr. 40, 70569 Stuttgart, Germany*

Checking the publications of Serge Kernbach we find that his main interest is in the science and practice of robotics, mainly in "swarms of robots". An army of mini-robots can today be programmed to act in a way similar to the behavior of ants and/or bees. Look at these videos - they are amazing, and also somewhat scary:

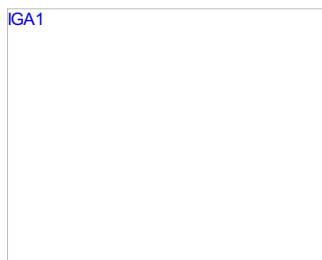
### But why does an expert in swarms of robots get interested in "unconventional research" that has to do with physics?

This question came to my mind after his paper caught my attention. So I started a little research of my own. The article has also the comment stating that:

2) V.1.4. Russian version of this work is submitted to the *International Journal of Unconventional Science*

So I checked what it is that Serge Kernbach is publishing in Russian rather than in English? Well, it appears that he is one of the co-founders of the *Journal of Unconventional Science*. In the first issue of this online journal there is an introductory article, written together with Vlad Zhigalov, in which the Editors touch the subjects of scientific ethics, and also describe the way the new journal will work. Then there is another paper, also written with Vlad Zhigalov, in which they describe a series of experiments on the "phantom effect" - one of the effects that are sometimes classified as belonging to "the paranormal". But even more interesting is Kernbach's paper in the most recent issue of the *Journal*:

It follows from this article that Kernbach is interested in "highly penetrating radiation". In fact he is an inventor of some of the devices that produce such a "radiation". The physical nature of this radiation is not clear. It may act both on physical devices and on biological systems as well. It can penetrate walls and act at a distance, even 'faster than light'.



© [www.second-physics.ru](http://www.second-physics.ru)

One of the commercially available detectors of the "highly penetrating emission" - IGA1. From a paper by V. Zhigalov "Harakternye jeffekty nejelektromagnitnogo izluchenija" 2011  
Yet, until now, it belongs to the "fringe science", "pseudo-science" or "false science". In fact, sometimes publications dealing with this subject find their way to the mainstream physics journals, but always under disguise.

We can ask now again: why is it that Serge Kernbach, an expert in artificial intelligence and swarms of robots, is also interested in "paranormal phenomena" (or in "psychotronics", as it was called in Russia)?

A partial answer to this question may be guessed from the referee report published under the article in *The International Journal of Unconventional Science*. The report is written by **A. Yu. Smimov**, another expert in "radiation of unknown nature", and inventor of another "generator" of such a radiation.

Smimov discusses there the role of "information" and the role of the "human operator" in experiments with similar devices, both generators and the detectors. These subjects appear to be neglected in the article by Kernbach. Smimov suggests that one reason for these omissions and for the fact that Kernbach is mainly interested in some kind of an official "certification" of similar devices, may be the commercial reason. It would be nice if we can equip robots with similar sensors, let them communicate using not-well-understood but sometimes very effective processes, and sell them. Here are just two sentences from Smimov's review:

Таким образом, можно предположить, что у автора речь идет, не больше и не меньше - о сертификации генераторов и приемников ВИ, по-видимому, как необходимого этапа к подготовке к массовому, в том числе, коммерческому использованию приборов: генераторов, а, возможно, и детекторов "высокопроникающего излучения".

Это нормальная, понятная позиция, но только причём здесь наука?

In translation:

*This way, we can assume that what the author has in mind is just that: certification of generators and detectors of "highly penetrating radiation", evidently as a necessary step for mass production, including the commercial use of the devices: generators and, perhaps, also detectors of the "highly penetrating radiation".*

*Such an approach is understandable, but what has it to do with science?*

The original article by Serge Kernbach, the one about "Unconventional research in USSR and Russia", the one that was featured on [Russia Today](#), tells us about the research up until 2003. What happened after that? Well, after that Serge Kernbach himself is busy with his own unconventional research.

As the subject touches several areas of physics that are within my own domain of scientific interest, I am going to write more about these subjects in forthcoming articles.

**Update:** After posting this article I have received the following additional information kindly sent to me by Serge Kernbach:

1. "[On metrology of systems operating with 'high-penetrating' emission](#)" - This is the second part of the review- a survey on measurement of the emission (I'm finalizing now the third part, which is related to the same topic but in western history)
2. "[Replication Attempt: Measuring Water Conductivity with Polarized Electrodes](#)" - This is a JSE paper, where I was very curious about such an emission and made a large number of replications based on A.V.Bobrov approach
3. "[Long and Super-Long Range device-device and operator-device Interactions](#)"- This paper is about our experiments (with colleagues) with long-range "non-local" signal transmission.

To quote from the last paper 3):

### Long and Super-Long Range device-device and operator-device Interactions

Serge Kernbach, Vitaliy Zamsha, Yuri Kravchenko

**Abstract** - This work describes performed device-device and operator-device experiments at long and super-long distances of  $>1$  km,  $>100$  km and  $>10000$  km. Experimental setup uses two types of sensors, based on electric double layers and IGA-1 device, and two types of LED and laser generators. We analyzed the construction of the setup, establishing a connection between receiver and emitter, and multiple effects appeared. A common character of operator- and device- interactions is assumed. This approach can be considered as a novel communication system as well as a system for operator training with an objective feedback from devices.

And here are examples of emitters used in these experiments:

LED Emitters



© Association of Unconventional Science  
LED and laser emitters

Avatar



**Arkadiusz Jadczyk**

Arkadiusz Jadczyk is a theoretical physicist, and the husband of SOTT founder Laura Knight-Jadczyk.

Professor Jadczyk is fascinated by the problems of the foundations of quantum theory, and its relation to the philosophy of science and theories of knowledge, consciousness and mind. In the past he has worked on algebraic methods and the foundations of quantum theory, differential geometric methods of field theory, theories of gravitation, Kaluza-Klein theories of hidden dimensions, and supersymmetry, non-commutative geometry, fractals.

The interested reader can have a look at [his Home Site](#) and the [Research Gate entry](#).

AJ- SOTT

## How Google, Facebook and Twitter are already tricking you and manipulating your actual brainwaves!

Did you mean to turn yourself over to a faceless corporation to allow them to **manipulate you**, for their profit, like a **hard-wired zombie**? Did you mean to become a digital Stepford-Wife or a Yuppie Tool? Probably not, but you did. Here is how they do it to you, every single day, using a very insidious technology called "**Neuro-marketing**".

Daniela Schiller, a Neuroscientist at the Mt. Sinai School of Medicine and an NYAS recipient of the Blavatnik Award for young scientists reveals the process in her article:

### "Yielding to Neural Temptation

The personally tailored sponsored ads we receive daily on our computers are rather convenient. A delivery boy bringing the newspaper to our doorstep with all the relevant ads already circled could almost match the experience.

In a Hitchcock-like movie, newspaper ads would slowly creep into your house. As you sit on the sofa, an ad would instantly place itself under the palm of your hand. On one unfortunate occasion, you take a peek at it, and now it is devotedly following you around. Internet advertising reality is not that far from having a newspaper ad for a stalker. A friend confessed to me a few days ago that she owns "more than one pair of shoes that chased me around until I couldn't resist." When the distance between the tips of our fingers to an ad is so small, do we really make a choice when responding to it? Brain research suggests the opposite: The ad chooses us.

We feel uncomfortable learning that websites aggregate, profile, personalize and sell our information to third parties, but it takes us five minutes to get used to it. Mind reading has always been the most efficient way to communicate, and it feels just like it, when the shoes we were just thinking about appear in front of our eyes. Instead of us digging up information, information presents itself to us effortlessly. All we need is to choose, which we evidently do, or at least we believe we do.

Neuroscience researchers have a fairly good idea of how the brain reacts to stimuli imbued with motivational salience (such as ads, gift wraps, trademarks, warning signs, lottery cards, etc.) that signify outcomes of high value (such as prizes, food, money, threats, etc.). A group of deep structures in the brain – the basal ganglia – is responsible for translating the information that motivational stimuli convey into choice. The basal ganglia mediate this process by forming an emotion-motor interface where reactions to motivating stimuli could guide actions. In a typical laboratory experiment, a rat learns to press a lever in order to drop food pellets into the food cup. The rat also learns, in a separate session, that whenever a stimulus such as a red light appears, food will drop into the cup. The interesting thing happens when the red light is turned on while the rat is pressing the lever: **The rat begins to press it more vigorously.** This is not very efficient on the rat's part. Each lever press delivers one food pellet, and pressing harder would not change the amount of food dropped into the cup, so why waste energy?

A study by Talmi and colleagues showed that people behave in much the same way as rats in the presence of motivational stimuli. Their study participants squeezed a handgrip in order to obtain money, and did it with greater vigor in the presence of money-related stimuli. This tells us that certain stimuli can invigorate our goal-directed actions just because they signal the same goal. If you have several goals in mind but can perform only one action at a given moment, what determines the action that would ultimately be chosen? We would like to think it is our ability to prioritize, but it could be something mundane as the little shoe image that appeared briefly at the corner of the screen, invigorating the must-buy-shoe-now action. Had it been a different image, you would have planned your vacation at the Bahamas right now. **Why might these efficient "reminders" for things we had on our mind anyway be problematic? The problem is that these salient stimuli do not only invigorate our actions; they also take control of the brain processing of our thoughts.**

In a study we performed in my lab, published recently in the journal *Neuron*, we examined the brain's reaction to such motivational stimuli. Instead of performing a real action, though, we asked the participants just to imagine the action. This type of motor imagery, such as picturing yourself throwing a ball, activates not only imagery networks but also motor regions that mediate real actions. The participants earned money for their imagery, which we tracked by measuring their brain responses in real time. In a separate session they also learned that a certain visual stimulus (such as a checkered square) signified winning money. This allowed us to create a laboratory experience that mimics your sitting by the computer, thinking of things you need to do, buy, or plan, when an ad appears on the screen. Here, we asked the participants to imagine that they were doing an action that would result in earning money, while the money-related visual stimulus appeared on the screen. Two interesting things happened in their brains.

First, we observed a boost in the neural responses of the motor imagery network. Second, the reward system of the brain, which encodes the value of the money-related stimuli, began working in coordination with the motor cortex. This neural synchronization between the "value" and "action" systems of the brain might be the gateway through which motivational stimuli act on our behavior. The motor cortex is the part of the brain that is in charge of commanding our body to perform actions. But here we engage it just by imagining an action we would have liked to perform. If the money-signaling stimulus appears while we imagine an action, the motor cortex receives a motivational cue from the reward system, and the two systems coordinate their function. This in turn could guide action selection, and determine which particular action we should execute.

Fast-forward into the future. Picture yourself sitting by your computer. Ads are appearing on the screen, and your thoughts are running in different directions. I am standing behind you, holding a device that measures your brain activation (Your mouse). By observing the cascade of events that each ad triggers in your brain, I could tell which action you are going to perform before you actually perform it, maybe even before you are aware of it. **Neuro-marketing** companies would use the technology to identify the most effective ads, and which "teasers" they should plug in to stir your thoughts in a certain way. The more you obsess about something, the higher the chances of those ads causing the inevitable. Even if you try, just by exposing yourself to ads, you increase your chances of relapse. **You believe you bought those shoes because you made up your mind, but given the neural chain of events, someone else probably made up your mind for you.** The ads are there to tempt your neurons to fire in a certain way. They pave the path of your moment-to-moment decisions. This is how motivational stimuli, or advertising, works. We are surrounded by it every day. But when it is personally tailored to our brain, **our free will shrinks more effectively, placing us in the path to zombiness.**

There is nothing much to do about it now except avoiding ads, clearing browsing data, and trying not to think. The technology is there, and we want to stay connected. But now that we know how it works in our brain, we have a choice. We can honestly say that we choose to be manipulated."

Bradley Connors, expands: "The biggest secret of politics, and political strategists, is the knowledge that the majority of people are now medically, clinically, scientifically-provable brain damaged, ignorant lumbering shades of what people used to be.

The backers of Twitter, Facebook and Google can make you vote for who they say and buy what they have invested in. 2/3 of American voters are idiots. They are unable to exist without a programmed routine, unwilling to read the news and condemned to get all information from extremist talk shows that spout programmed lines over and over.

The Norman Rockwell icon of the "we are just plain folks in our overalls working hard on our farms" demographic of the average citizen is gone. Replaced by a drug addled, alcohol addled, Prozac addled, junk-food-brain-damaged horde of inner city gangsters, media catatonics, trophy wives, arrogant yuppie hipsters, obese pita-pocket gobbling, Jerry Springer addicts.

In other words, a large number of the voting public are really, really dumb; Dumber than ever and easily brainwashed. They are increasing in numbers. The CIA discovered that you can brainwash some people in a matter of hours and most people in 5 days or less. Madison Avenue then perfected their techniques. "Over-messaging" is the intelligence agency technique of brainwashing an entire country (millions of people) over the course of a year or two, with subtle concept reinforcement. It is done in a way so that the population does not really notice it and so they think it was their idea. A successfully accomplished intelligence effort of this kind is called a "regime change" or "national transition effort", on Madison Avenue it is called a: "marketing campaign".

The increase in Reality TV shows about exceptionally stupid people has to do with the smart people turning off their TV's and the dumb people increasing in numbers. The dumb ones are the only ones the TV networks can get to watch but they have to meet them on their level. Domestic education scores are dropping through the basement. Many high school students can't read a book. The population is getting stupid at the speed of light. At college you can get smart but if you get too smart you might observe and realize all of the things in this essay are true so not everybody gets to go to college. If you aren't addicted to something then you might see too clearly so the underwriting of the alcohol and drug industry continues (with your tax dollars) So you have the smart ones and the dumb ones (think Morlocks and Eloi) if you run the current cycles and patterns out into the future you might actually end up with Morlocks and Eloi. (If you still know how to read books you will know what this reference is, the rest of you: Google it) One wonders if the current fad about Zombies has to do with the public's second sight on his potential future.

Political strategists exploit the dumb hordes by triggering their primal instincts using very base advertising concepts: "The bad guys will get you if you don't vote for us" (Fear); "You won't be able to get money to pay for your addictions if you don't let us create the jobs" (Security); etc. An entire campaign can be won without the need to appeal to any intelligent voters. The bestial ones can bring in the majority more often than not. If you are reading this, you may be saying: "oh, I'm not one of them" but if you don't read the news daily from multiple sources, if you only have products from the eye-level shelf at Safeway in your cupboards and if you watch "reality TV" shows... you just might be one. But you have one last chance to escape..."

Connors, a blogger goes on to say: "Ordinization: Manufactured Addiction For Profit. This is the process of using ingested substances to trick the brain in order to create addictive profit opportunity.

Fats, salts, sugars, breads, alcohol, tobacco and drugs use ordinization to addict consumers to buy them. Most of the makers of these products receive subsidies from your tax dollars. In other words, you are paying them to addict you and your family.

The key to ordinization is that you don't want to believe it is happening to you because the addiction creates a synthetic bliss which your psychology causes you to defend. You get mad if someone implies they want to take away your cigarettes, alcohol, dessert, etc.

Government support of these products creates a nation of addicts, drunks, obese people, personality disorders, problem children and a very unhealthy society.

Billions of dollars are spent each year to refine and increase the addictive qualities of these products. "Product science" consultants have vast laboratories where they research food, beverage, fragrance, texture, taste and all human stimulants right down to each neuron in the brain. They want to see how they can control an entire generation of consumers to be unable to resist buying their product. Elite politician's operatives spray certain fragrances at rallies and then try to spray the same scent near polling places so you recall the candidate with a "home cooked meal" smell and want to vote for them without realizing why.

Vegas hotels and big Malls use psychological sense vapors to control consumers. 60 Minutes recently had a segment on a company, Givaudan, that other companies like McDonalds and Pepsi hire to create addictive flavors. This is all out in the marketplace. **If you don't want to be a product zombie**, demand that Congress outlaw Ordination."

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**Could someone control your mind by simply aiming an electrical beam at you? Can you be turned from a lawn mowing yuppie into a neighborhood butchering madman in a few minutes? According to the articles above, and below, thanks to science, apparently so:**

## Ultrasound May Boost Brain's Performance, Study Finds

LiveScience | By Stephanie Pappas Posted: 01/13/2014 8:10 am EST | Updated: 01/14/2014 2:44 pm EST

Smarter Ideas, Brain Disorders, Brain Initiative, Brain Science, Fetus, Brain Science, Sensory Perception, Ultrasound Brain, Ultrasound Brain Performance, Ultrasound Effects, Ultrasounds, Science News

Ultrasound may improve sensory perception, according to a new study in humans.

By directing ultrasound to a specific brain area, researchers were able to improve people's ability to discriminate between sensory inputs. Ultrasound is sound far above the upper limit of what humans can hear. It's useful in medical imaging. Doctors and technicians send bursts of ultrasound through tissue and record the echoes, creating a picture of what's inside — whether it's an injured knee or a fetus in utero.

Ultrasound also has potential for mapping the connectivity of the brain. Neuroscientists are particularly interested in understanding how brain areas chat with one another; in fact, a new federal project, the BRAIN Initiative, has the goal of mapping the healthy human brain. [Inside the Brain: A Photo Journey Through Time]

Ultrasound is one of several noninvasive methods that stimulate the brain. Another is transcranial magnetic stimulation, which stimulates the brain with magnets. A third is transcranial direct current stimulation, which uses electrodes to deliver a weak electrical current to the brain through the scalp.

The new study suggests that ultrasound may be the best of the bunch.

"We can use ultrasound to target an area of the brain as small as the size of an M&M," study researcher William Tyler, a neuroscientist at the Virginia Tech Carilion Research Institute, said in a statement. "This finding represents a new way of noninvasively modulating human brain activity with a better spatial resolution than anything currently available."

Surprising improvement

Tyler and his colleagues focused on sensory perception from the hand. They first placed an electrode on the wrist, over the nerve that carries impulses from the hand to the brain. Using a small electrical current, they stimulated that nerve while focusing ultrasound on the brain region that processes the nerve's signals.

The researchers recorded the participants' brain responses with electroencephalography (EEG), electrodes on the scalp that measure the electrical activity of the brain. The ultrasound weakened the brain waves that encode the tactile stimulation, they found.

But the next set of experiments revealed something truly strange.

The researchers conducted two tests of sensory perception. In the first, participants feel two pins against their skin and must distinguish whether they are being touched at one or two points. The closer the pins are to each other, the harder the task. In the second, researchers blow a series of air puffs against the participants' skin, and they must determine how many individual puffs they feel. The faster the puffs, the harder they are to discriminate.

Instead of these weak brain signals translating to poorer sensory perception, people's performance actually improved on both tests.

"Our observations surprised us," Tyler said. "Even though the brain waves associated with the tactile stimulation had weakened, people actually got better at detecting differences in sensations."

Tweaking the brain

What might explain this seeming paradox? The answer might have to do with how neurons function. When brain cells communicate, they can urge their neighbors to become active (excitation) or tell everyone to quiet down (inhibition). The ultrasound may have affected the brain region's balance of excitation and inhibition, Tyler said.

As a result, the excitation impulses may not have spread so far, essentially giving the brain a better triangulation of where the sensory inputs were coming from.

The boost in sensory perception vanished when researchers moved the ultrasound's focus just a half inch (1 centimeter). That means the method is a fine-grained way to "tweak" brain circuits, both to map their activity and potentially to treat brain disorders.

"In neuroscience, it's easy to disrupt things," said Tyler. "We can distract you, make you feel numb, trick you with optical illusions. It's easy to make things worse, but it's hard to make them better. These findings make us believe we're on the right path."

**Follow Stephanie Pappas on Twitter and Google+. Follow us @livescience, Facebook & Google+. Original article on LiveScience.**

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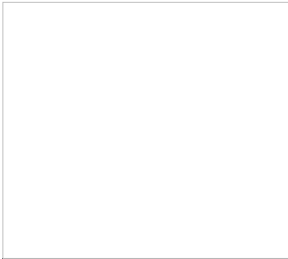
### China explores using stoplights for brain-hacking, to tell you what to think!


Imagine you pull up to an intersection as the light changes to red, as you wait for the light to change you suddenly decide you are hungry and want Dim Sum. You drive to the nearest Dim Sum and find that everybody else at that intersection has gone there too. Did you just get programmed by the LED stoplight with subliminal imaging?

At the next stop light will you suddenly decide that the Chairman of the Party is a "real sexy guy"? Did the stoplight put that thought in your mind? Did the stoplight tell you to be "obedient"?

Are those LED screens of sunsets and sunrises all over China only that.. or more? Tanya, at Live Science, describes the newly proven science to put images in your mind in a few milliseconds without you even being aware you got a message:

By Tanya Lewis, Staff Writer | January 17, 2014 12:00pm ET



 The human brain can identify an image the eye has seen for only 15 milliseconds.  
Credit: [IKO, Shutterstock](#)  
[View full size image](#)

The human brain can achieve the remarkable feat of processing an image seen for just 13 milliseconds, scientists have found. This lightning speed obliterates the previous record speed of 100 milliseconds reported by previous studies.

In the study, scientists showed people a series of images flashed for 13 to 80 milliseconds. Viewers successfully identified things like a "picnic" or "smiling couple" even after the briefest of glimpses.

"The fact that you can do that at these high speeds indicates to us that what vision does is find concepts," study leader Mary Potter, a professor of brain and cognitive sciences at MIT in Cambridge, Mass., said in a statement. "That's what [the brain](#) is doing all day long — trying to understand what we're looking at." [[10 Odd Facts About the Brain](#)]

The eyes shift their gaze three times per second, so the ability to process images speedily may help the eyes find their next target, Potter said.

When a person [looks at something](#), the retina sends that information to the brain, which processes shape, color and orientation. Potter and her team aimed to increase gradually the speed at which people could identify images until they were no more accurate than they would have been if they had guessed the image. The viewers had never seen the images before.

Previous studies suggested the brain takes at least 50 milliseconds to send visual information from the retina to the "top" of the brain's [visual processing](#) chain and back again in loops that confirm what the eye saw, so the researchers expected people would get worse at seeing images shown for less than 50 milliseconds.

But Potter's team found that although people's performance declined on average as the time was reduced, they still performed better than chance when identifying images flashed for as little as 13 milliseconds, the speed limit of the computer monitor they used.

The findings, detailed online Jan. 16 in the journal *Attention, Perception, and Psychophysics*, show that people were processing the images much more quickly than scientists believed was possible. One reason may be that the study participants became faster with practice, and also received feedback on their performance, Potter said.

The findings support those from a study of macaque monkeys in 2001 that found the animals respond to specific kinds of images — such as faces — flashed for just 14 milliseconds.

These studies demonstrate that the information only needs to flow in one direction, from the retina to the [visual brain areas](#), in order to identify concepts, without needing feedback from other brain areas. This ability could give the brain the time it needs to decide where to point the eyes, which can take only 100 to 140 milliseconds. (It might also explain why some people [report a "sixth sense,"](#) when they unconsciously pick up on visual cues in a scene.)

In addition, even though viewers saw the images for only 13 milliseconds, part of their brain may have continued to process them, because sometimes, participants weren't asked about the image until after they saw a sequence of images.

Next, the researchers want to see how long the brain can hold visual information glimpsed for such a short time, and which brain regions are active when a person correctly identifies what they saw.

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