



## Pathology of Brain's Central Amygdala Nucleus Activates Killer Instinct

Robert Skopec,<sup>1</sup> Dubnik,<sup>2</sup> Slovakia,<sup>3</sup> Free-Lance Science,<sup>4</sup>

### ABSTRACT

*Killer instinct means having strong willpower. It's not easy to spot, some people are hidden killers, they're sweet and laid back, but when it's time for business, get the hell out of their way. It's called the killer instinct because it's innate. But, if you condition yourself long enough it can become second nature. First, what are they like? Killers are lions with tunnel vision. When they see their prey, it's seek-and-destroy time, and they'll rip your head off if that's what it takes. Think about all the businessmen, politicians, athletes, or anyone who's at the top of the food chain, they have zero mercy for their enemies. It means same as Darwin's „Survival of the fittest“.*

### 1. INTRODUCTION

**They take it to the extreme.** Killers are just as ruthless with themselves. They're willing to achieve what they want **at all costs**, even if it means **sacrificing health and love, it's why they win**. In baseball and in business, there are three types of people. Those who make it happen, those who watch it happen, and those who wonder what happened. **Losers make excuses, winners make things happen.**

Normal people pretend to not care. But killers really, really couldn't give a rat's ass, your opinion of them usually doesn't even cross their mind.

Normal people feel a need to make excuses or explain their failures, killers don't. Agree or disagree, understand or misunderstand, it's all good.

**Thomas Edison:** might've failed up to 10,000 times before inventing the lightbulb. Most people might give up after 10 tries at something, shame on them. Killers are resilient fighters, if anything, failure motivates them even more.

**They want to dominate:** To them, good isn't enough. They enjoy stomping on competition, it shows that they're heads-and-shoulders above everybody else.

**They fight through stuff:** It doesn't matter how many hours it takes, how bad it hurts, how scary it feels, how dull it is, or how much they have to sacrifice, there's no let-up.

**They like challenges:** When they face adversity, they don't complain, they see it as an exciting opportunity to prove themselves.

**They aren't bothered by pressure.** How someone handles pressure will tell you what they're made of. Do they act unusual? Do they break down? Do they explode in anger? Or, do they do what killers do? Stay ice cool. Or even better, excel under pressure.

Michael Jordan doesn't get intimidated by big moments. The end of a close game makes him come alive and perform even better, and that's why he's the most clutch player of all time.

**They are hella confident:** Confidence is the #1 trait that characterizes a killer. It doesn't come and go, it's a stain/tattoo/mark embedded deep in their psyche. And no outside noise can smudge it. It's why they're huge risk-takers, they believe they'll win every time.

**How to become a stone-cold killer:** Become your own enforcer. Do you have what it takes? Are you *willing* to push yourself and discipline yourself to get from point A to point B, regardless of the circumstance?

If not, there's good news. You can work on your killer instinct every day from anywhere:

- If you want to wake up early every day, then set 50 alarms, sleep earlier, use [Mel Robbin's 5-second rule](#)
- If you want to bump up your weight lift limit by 20 lbs, then take the pain, hire a coach, find a friend, scream if you have to
- If you want to stop drinking, then give away your booze or throw it away, say no to parties and bars, go to AA meetings if you have to
- If you want to start your own business, then ask the bank for a loan, borrow money from friends and family, start a fundraiser, sell your stuff. Sell your car, your home, your sperm/eggs, your kidney

**Whatever it takes:** Obstacles don't have to stop you. If you run into a wall, don't turn around and give up. Figure out how to climb it, go through it, or work around it.

Every time you force yourself to complete a goal, big or small, your inner killer levels up. Because you're training your mind to embrace discomfort.

It's a simple concept but difficult task. If you aren't a killer by nature you need to push yourself and even be cruel to yourself if necessary. Most people aren't willing to do that, and that's why they're average, that's why they can only *wish* for wealth and success.

**Be hungry:** If you want something bad enough, you will find a way to get it. If a limbless mother's house is on fire but her baby's still in the bedroom, I bet she'll get her child out of the house, somehow.

And that's what killers have always, a relentless and fearless attitude. It's in their DNA to go hard all the time.

**I've worked on my own killer instinct and it's helped me a lot.** I wouldn't say there was no killer in me, everybody's got some. But I used to be too nice, or should I say, too weak. Some of it was due to my soft nature and some due to my Asian culture.

A group of tough kids pushed me around in high school, and it came to a point where I had enough and decided to stand up to them. If they called me names I'd go back at them. If they drank a whole bottle of liquor, I'd match them. If we played basketball, I'd go extra hard.

Maybe I developed an edge or maybe I've had it in me the whole time. Either way, my people-pleasing aura started wearing off and people started to respect me. I carry the same edge with me today and when I say I'll do something, I'd get it done, no matter what.

And that's the **essence of a killer, always put up a fight.**

**Signs you need to step your game up.** You aren't where you want to be, and it might not have much to do with your qualifications.

You have the same tools as everybody else, what you're lacking is the mindset. Let's see if you fall into any of these weak approaches:

- **You aren't obsessed**-you dabble around and give half effort. Killers are single-minded, once they set a target, they go 100mph
- **You dance around the real subject**-you want to be a writer so you read, take courses, design your website, your logo, you even think of your pen name, you work on everything but the main thing itself, which is writing. Why? Because it's the hardest. Killers go straight for the dome
- **You don't give your 110% effort**-you work hard enough to get the job done. Killers work till they physically can't, and then work some more
- **You get distracted easily**-Staying focused for a long period of time isn't easy but if you can't do it, you ain't no killer!

**Killer instinct is a power boost and it'll amplify everything you do. Tesla-type intellectuals characteristics**  
**Albert Einstein: „Principles of Research“– for Max Planck's 60 birthday - 23 April 1918, Berlin, Germany**

In the temple of science are many mansions, and various indeed are they that dwell therein and the motives that have led them thither. Many take to science out of a joyful sense of **superior intellectual power: science is their own special sport to which they look for vivid** experience and the satisfaction of ambition; many others are to be found in the temple who have offered the products of their brains on this altar for purely utilitarian purposes. Were an angel of the Lord to come and drive all the people belonging to these two categories out of the temple, the assemblage would be seriously depleted, but there would still be some men, of both present and past times, left inside. Our Planck is one of them, and that is why we love him.

I am quite aware that we have just now light-heartedly expelled in imagination many excellent men who are largely, perhaps chiefly, responsible for the building of the temple of science; and in many cases our angel would find it a pretty ticklish job to decide. But of one thing I feel sure: if the types we have just expelled were the only types there were, the temple would never have come to be, any more than a forest can grow which consists of nothing but creepers. For these people any sphere of human activity will do, if it comes to a point; whether they become engineers, officers, tradesmen, or scientists depends on circumstances. Now let us have another look at those who have found favor with the angel. Most of them are somewhat odd, uncommunicative, solitary fellows, really less like each other, in spite of these common characteristics, than the hosts of the rejected. What has brought them to the temple? That is a difficult question and no single answer will cover it. To begin with, I believe with Schopenhauer that one of the strongest motives that leads men to art and science is escape from everyday life with its painful crudity and hopeless dreariness, from the fetters of one's own ever shifting desires. A finely tempered nature longs to escape from personal life into the world of objective perception and thought; this desire may be compared with the townsman's irresistible longing to escape from his noisy, cramped surroundings into the silence of high mountains, where the eye ranges freely through the still, pure air and fondly traces out the restful contours apparently built for eternity.

With this negative motive there goes a positive one. Man tries to make for himself in the fashion that suits him best a simplified and intelligible picture of the world; he then tries to some extent to substitute this cosmos of his for the world of experience, and thus to overcome it. This is what the painter, the poet, the speculative philosopher, and the natural scientist do, each in his own fashion. Each makes this cosmos and its construction the pivot of his emotional life, in order to find in this way the peace and security which he cannot find in the narrow whirlpool of personal experience.

What place does the theoretical physicist's picture of the world occupy among all these possible pictures? It demands the highest possible standard of rigorous precision in the description of relations, such as only the use of mathematical language can give.

In regard to his subject matter, on the other hand, the physicist has to limit himself very severely: he must content himself with describing the most simple events which can be brought within the domain of our experience; all events of a more complex order are beyond the power of the human intellect to reconstruct with the subtle accuracy and logical perfection which the theoretical physicist demands.

Supreme purity, clarity, and certainty at the cost of completeness. But what can be the attraction of getting to know such a tiny section of nature thoroughly, while one leaves everything subtler and more complex shyly and timidly alone? Does the product of such a modest effort deserve to be called by the proud name of a theory of the universe? In my belief the name is justified; for the general laws on which the structure of theoretical physics is based claim to be valid for any natural phenomenon whatsoever. With them, it ought to be possible to arrive at the description, that is to say, the theory, of every natural process, including life, by means of pure deduction, if that process of deduction were not far beyond the capacity of the human intellect. The physicist's renunciation of completeness for his cosmos is therefore not a matter of fundamental principle.

The supreme task of the physicist is to arrive at those universal elementary laws from which the cosmos can be built up by pure deduction. There is no logical path to these laws; only intuition, resting on sympathetic understanding of experience, can reach them. In this methodological uncertainty, one might suppose that there were any number of possible systems of theoretical physics all equally well justified; and this opinion is no doubt correct, theoretically. But the development of physics has shown that at any given moment, out of all conceivable constructions, a single one has always proved itself decidedly superior to all the rest. Nobody who has really gone deeply into the matter will deny that in practice the world of phenomena uniquely determines the theoretical system, in spite of the fact that there is no logical bridge between phenomena and their theoretical principles; this is what Leibnitz described so happily as a "pre-established harmony." Physicists often accuse epistemologists of not paying sufficient attention to this fact. Here, it seems to me, lie the roots of the controversy carried on some years ago between Mach and Planck.

The longing to behold this pre-established harmony is the source of the inexhaustible patience and perseverance with which Planck has devoted himself, as we see, to the most general problems of our science, refusing to let himself be diverted to more grateful and more easily attained ends. I have often heard colleagues try to attribute this attitude of his to extra-ordinary will-power and discipline -wrongly, in my opinion. The state of mind which enables a man to do work of this kind is akin to that of the religious worshiper or the lover; the daily effort comes from no deliberate intention or program, but straight from the heart. There he sits, our beloved Planck, and smiles inside himself at my childish playing-about with the lantern of Diogenes. Our affection for him needs no thread-bare explanation. May the love of science continue to illumine his path in the future and lead him to the solution of the most important problem in present-day physics, which he has himself posed and done so much to solve. May he succeed in uniting quantum theory with electrodynamics and mechanics in a single logical system.

Source: <http://www.neurohackers.com/index.php/fr/m...>

## 2. HOW TO TURN ON KILLER INSTINCT

The activation of a particular group of brain cells is all it takes to make mice hunt to kill. **The brain's central amygdala** has long been thought to have a role in producing emotions, particularly fear. To activate this brain region, **Ivan de Araujo** at Yale University in New Haven, Connecticut, and his co-workers **engineered mice so that neurons in the central amygdala could be stimulated by light or small molecules**. When the team activated the **amygdala neurons**, the animals' jaw and neck muscles tensed up, and **they tried to grab** an item, stretching their necks and biting and restraining the object. **The mice hunted** a variety of items, from crickets to bottle caps. [Cell 168, 311–324 \(2017\)](#)

This and other research suggests that, **in addition to emotion, the amygdala regulates a variety of complex behaviours, including feeding, grooming and predation**.

### 3. SWITCHING ON THE PREDATORY KILL INSTINCT IN MICE

*Summary: Using optogenetics to stimulate neurons in the central amygdala, researchers turn on predatory hunting motivation in mice.*

**Researchers at Yale University have isolated the brain circuitry that coordinates predatory hunting, according to a study in the issue of *Cell*. One set of neurons in the amygdala, the brain's center of emotion and motivation, cues the animal to pursue prey. Another set signals the animal to use its jaw and neck muscles to bite and kill.**

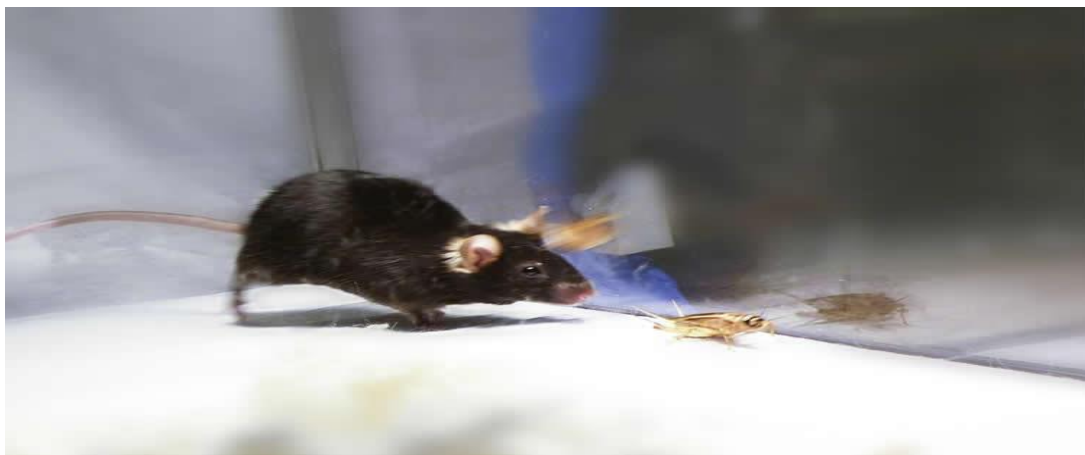
The researchers used optogenetics, a means of engineering specific neurons to fire upon light stimulation, to isolate and selectively activate each set of neurons. When the laser is off, the animals behave normally. But turn the laser on, and the mice take on qualities of “walkers” from *The Walking Dead*, pursuing and biting almost anything in their path, including bottle caps and wood sticks. “We’d turn the laser on and they’d jump on an object, hold it with their paws and intensively bite it as if they were trying to capture and kill it,” says lead investigator Ivan de Araujo, Associate Professor of Psychiatry at the Yale University School of Medicine and an Associate Fellow at the John B. Pierce Laboratory.

The *The Walking Dead* analogy is fair only to a certain extent, says de Araujo. In nature, predatory hunting takes the form of highly complex behaviors that are common to most jawed vertebrates, including humans. “It is a major evolutionarily player in shaping the brain,” says de Araujo. “There must be some primordial subcortical pathway that connects sensory input to the movement of the jaw and the biting.”

The animals did not, however, attack other mice in the cage. Hunger also affected predatory behavior. Hungry mice more aggressively pursued prey during light stimulation than mice that were not hungry. “The system is not just generalized aggression,” says de Araujo. “It seems to be related to the animal’s interest in obtaining food.”

The study grew out of de Araujo’s efforts to understand the neural mechanisms underlying feeding behaviors in animals. His lab had been looking at mice living and eating in cages. “They have nothing else to do other than eat the pellets we throw in the cage,” he says. “I began to wonder how natural and relevant this behavior is.”

De Araujo’s interest in more natural behaviors pointed him to a study that had mapped brain areas associated with hunting and feeding. Many areas were listed, but one responded almost exclusively to hunting and not to eating. That region, the central nucleus of the amygdala, also had projections that were linked to areas that control hunting muscles, such as the jaw and neck. “This area was perfectly compatible with an activation system that drives the motor behavior associated with hunting,” he says.



This photograph depicts a mouse demonstrating instinctual predatory behavior with a cricket. NeuroscienceNews.com image is credited to Ivan de Araujo.

By selectively manipulating the different types of neurons in this region, they found that one set of neurons controlled pursuit, and another controlled the kill. Experiments involved inanimate stand-ins for prey, such as sticks and bottle caps and animate bug-like toys, as well as live insects.

The researchers also specifically lesioned each type of neuron. They found that, if they lesioned the neurons associated with biting and killing, the animals would pursue the prey but could not kill. The biting force of the jaw was decreased by 50 percent. "They fail to deliver the killing bite," says de Araujo.

The team is now exploring the sensory input into the amygdala to determine what triggers predatory behaviors and investigating how the two modules—one controlling pursuit and the other controlling the kill—are coordinated. "We now have a grip on their anatomical identities, so we hope we can manipulate them even more precisely in the future," says de Araujo.

### About this neuroscience research article

**Funding:** This work was supported by the National Institutes of Health, the National Natural Science Foundation of China, and the Brazilian government.

**Source:** NeuroscienceNews.com image is credited to Ivan de Araujo.

**Original Research:** Full open access [research](#) for "Integrated Control of Predatory Hunting by the Central Nucleus of the Amygdala" by Wenfei Han, Luis A. Tellez, Miguel J. Rangel Jr., Simone C. Motta, Xiaobing Zhang, Isaac O. Perez, Newton S. Canteras, Sara J. Shammah-Lagnado, Anthony N. van den Pol, and Ivan E. de Araujo in *Cell*. Published online January 12 2017 [doi:10.1016/j.cell.2016.12.027](https://doi.org/10.1016/j.cell.2016.12.027)

### Integrated Control of Predatory Hunting by the Central Nucleus of the Amygdala

#### Highlights

Stimulation of central amygdala (CeA) elicited hunting of live and artificial prey  
CeA projections to the reticular formation (PCRt) control biting attacks  
CeA projections to periaqueductal gray (PAG) control locomotion during pursuit  
CeA integrates craniofacial and locomotor modules during goal-directed behavior.

#### 4. SUMMARY

Superior predatory skills led to the evolutionary triumph of jawed vertebrates. However, the mechanisms by which the vertebrate brain controls predation remain largely unknown. Here, we reveal a critical role for the central nucleus of the amygdala in predatory hunting. Both optogenetic and chemogenetic stimulation of central amygdala of mice elicited predatory-like attacks upon both insect and artificial prey. Coordinated control of cervical and mandibular musculatures, which is necessary for accurately positioning lethal bites on prey, was mediated by a central amygdala projection to the reticular formation in the brainstem. In contrast, prey pursuit was mediated by projections to the midbrain periaqueductal gray matter. Targeted lesions to these two pathways separately disrupted biting attacks upon prey versus the initiation of prey pursuit. Our findings delineate **a neural network that integrates distinct behavioral modules and suggest that central amygdala neurons instruct predatory hunting across jawed vertebrates.**

"Integrated Control of Predatory Hunting by the Central Nucleus of the Amygdala" by Wenfei Han, Luis A. Tellez, Miguel J. Rangel Jr., Simone C. Motta, Xiaobing Zhang, Isaac O. Perez, Newton S. Canteras, Sara J. Shammah-Lagnado, Anthony N. van den Pol.

## 5. LASERS ACTIVATE KILLER INSTINCT IN MICE

Stimulating certain areas of the animals' brains can trigger predatory behaviors including biting and grabbing. By [Erin Ross](#), [Nature magazine](#) on January 12, 2017



Predatory animals attack and kill their food all the time—but the brain circuits that control such behaviors remain unknown. Credit: [Martin Harvey](#) *Getty Images*

Researchers have found a switch that seems to turn on a mouse's predatory instincts. When certain parts of the rodents' brains were stimulated with light, mice displayed a complex array of hunting activities.

[Predatory behaviours](#) such as grabbing and biting are familiar to fans of nature documentaries, but the brain circuits involved remain a mystery. Previous research found that the central amygdala, an almond-shaped area of the brain [involved in producing emotions including fear](#), was activated when rats hunt. Researchers wanted to know whether the amygdala itself controls hunting behaviours, and a study published on 12 January in *Cell* suggests that it does.

To activate the central amygdala in mice, Ivan de Araujo, a neurobiologist at Yale University in New Haven, Connecticut, and his colleagues used a technique called [optogenetics](#). First, they infected the mice with a virus that made the neurons in their brains sensitive to blue light. Then, the researchers used a tiny optic fibre to shine a blue laser on the amygdala. This prompted the animals to tense their jaw and neck muscles. The behaviour didn't occur when the researchers stimulated other **parts of the brain**.

When the laser was on, the mice hunted just about everything placed in their paths, from edible treats such as crickets to non-food items like bottle caps. The researchers observed the same activity when they **triggered the amygdala with chemogenetics**, a similar technique that stimulates neurons with molecules rather than light.

The hunting and feeding behaviours even happened when there was nothing to hunt. When mice in empty cages had their amygdalas activated, they stopped whatever they were doing, positioned their front legs as if they were holding food and moved their mouths as if they were chewing.

### Friend vs. Food

But this doesn't mean that researchers have found the neural circuit for ravenous, murderous mice, says de Araujo. "The first thing we thought was, maybe this was just **generalized aggression**. Or maybe we just made the mice very hungry."

So the team tested that. Although the light-stimulated mice hunted more than the ones left alone, both groups ate the same amount. And the laser-activated mice could still tell the difference between friend and food: "When they were with another mouse, they might have become more curious, but we didn't observe any attacks," says de Araujo. This left him fairly certain that the experiments were triggering predation, not hunger or aggression.

This is significant because predation is a very complex behaviour, says Kay Tye, a neuroscientist at the Massachusetts Institute of Technology in Cambridge. "It's not just physiological, it's hunting, biting, releasing and eating. Those are motor sequences that require a lot of information, so it's remarkable you can get this behaviour with that sort of gross manipulation."

### Opening the door

Scientists once thought that the central amygdala's role in behaviour was limited to fear. But research has now shown that this area of the brain is implicated in a number of complex behaviours such as grooming. Tye thinks that predation is one more example of the many things it can trigger.

Because the central amygdala is involved in so many different behaviours, she says, future research needs to tease out **the precise neuronal circuits involved in hunting**. "The central amygdala has been linked to escape and flight—this is completely different from that." A hunting animal is seeking something out for a reward, she explains, whereas a creature in escape or flight mode is actively avoiding something.

Tye wants to know how much overlap there is between the circuits that control the two behaviours. She thinks that **the amygdala might be acting as a 'gate', holding back a variety of programmes that are constantly running in the background of the brain**. If that's the case, de Araujo and his colleagues may have discovered the door for **hunting behaviours**.

Researchers have transformed normally timid lab mice into snapping, super-efficient killers by manipulating circuits in the brain's "fear center" — the amygdala.

Their findings show just where the predatory mechanism comes from in the brain, and show that, in mice, anyway, it links the muscles of the jaw, shoulder and forelimb. They work together to create a fast and efficient pounce. A mouse chases after a cricket. Ivan E. de Araujo/ The John B. Pierce Laboratory/Cell Journal

It creates a somewhat horrifying scenario but sheds light on precisely where in the brain hunting skills are centered. It's a mechanism common to all higher animals, including humans. The team used a technique called optogenetics to control the mice. It involves genetically modifying specific brain cells using a virus, and then employing a laser to activate the neurons.

Once they'd homed in on the correct circuit, the transformation was instant, the team reports [in the journal Cell](#).

"We'd turn the laser on and they'd jump on an object, hold it with their paws and intensively bite it as if they were trying to capture and kill it," said Ivan de Araujo, an associate professor of psychiatry at the Yale University School of Medicine, who also works at the nearby John B. Pierce Laboratory.



"We'd turn the laser on and they'd jump on an object, hold it with their paws and intensively bite it as if they were trying to capture and kill it."

They've got [movies showing how it works](#). When they're in their normal, natural state, the mice ignore sticks and other objects in their cages, and actively try to avoid a moving robotic toy.

When the laser pulses on, they instantly attack the objects, biting hard. They also pounced quickly on live crickets. "Behavior was interrupted immediately upon laser deactivation. Such attacks were never observed when laser source was off," the team wrote.

It's almost irresistible to compare the mice to zombie killers, but de Araujo says the analogy is not quite fair. The laser activation does not prompt the mice to attack one another and it simply heightens natural hunting behavior.

A graph depicts the predatory hunting instinct. Wenfei Han / The John B. Pierce Laboratory/Cell Journal  
But they do show that vertebrates — animals with a spine — have evolved a coordinated mechanism linking the brain to the jaws and to limbs needed to seize food.

### Coronavirus: How variants like omicron develop and what makes them variants 'of concern'

"Our findings imply **the central amygdala as a modular command system**," de Araujo's team wrote. "It is a major evolutionarily player in shaping the brain," he added. "There must be some primordial subcortical pathway that connects sensory input to the movement of the jaw and the biting."

Not only that, but the brain cells control the jaw strength. When they damaged certain neurons, it weakened the bite of the mice. "They fail to deliver the killing bite," de Araujo said in a statement.

It's counterintuitive that this system would start in the amygdala. "It's an area more traditionally linked to avoidance and fear and fight or flight behavior," de Araujo told NBC News.

"Our findings imply **the central amygdala as a modular command system.**"

That bears more study, including questions how can **the corona virus influence the amygdala, etc.** So could they make real zombies? It would be hard. To activate the brain cells, the laser has to shine right on them. That requires a fiber optic cable to be surgically implanted in the skull. The mice are tethered to their cages. Chemicals can be used to activate the brain cells, but they are much harder to control, de Araujo said.

And the behavior controlled by this brain system has a purpose. "The system is not just generalized aggression," de Araujo said. "It seems to be related to the animal's interest in obtaining food." Maggie Fox is a senior writer for NBC News and TODAY, covering health policy, science, medical treatments and disease.

## 6. CONCLUSION

Social distancing restrictions of immunology are in antagonistic contradictions with religious and confessional principles of several Churches, first of all with principles of Christianity. This is outgoing from the difference in thinking at the Quantum Level between Martyrs during Martyrdom.

The dichotomous correlations of the adaptation may be caused also by the Quantum Entanglement Relative Entropy as a measure of distinguishability between two *quantum states* in the same Hilbert space. The relative entropy of two *density matrices*  $p_0$  and  $p_1$  is defined as  $S(p_1|p_0) = tr(p_1 \log p_1) - tr(p_1 \log p_0)$ . When  $p_0$  and  $p_1$  are reduced density matrices on a spatial domain  $D$  for two states of a *quantum field theory* (QFT), implies that  $S(p_1|p_0)$  increases with the size of  $D$ . Than  $\Delta S_{EE} = -tr(p_1 \log p_1) + tr(p_0 \log p_0)$  is **the change in**

**entanglement entropy across  $D$  as one goes between the states.**

When the states under comparison are close, *the positivity* is saturated to *leading order*:  

$$S(p_1|p_0) = \Delta \langle H_{\text{mod}} \rangle - \Delta S_{EE} = 0.$$

The increased specialization required today for professional credentials makes *the broad thinking* of that characterizes *geniuses* harder to develop. I agree that *the ritual culture of academia* may also hamper *genius*. As philosopher of science Thomas Kuhn has pointed out, *highly creative work (without precedent)* does not fit existing formalistic academic paradigms tend to be dismissed (*the counter-selection*). **Many great scientists have related how their most original ideas were repeatedly rejected by their peers.**

The most productive environment for *the formation of new ideas*, is one that encourages networks of minds *operating in a non-market setting*. For example, *creative contributions* that incrementally advance existing knowledge differ in their impact from those that *redirect a field*. The former are rewarded by a field's referees and editors, the latter may be accepted only grudgingly, if at all, because *they challenges the conventional wisdom*. *Inventive* people also tend to be *crowd-defiers*. **Creative people are thus intellectually combative. Creativity and authenticity is a function of the nonlinear deviation term in the brain, and is causing contradiction with the majority meaning on the given question. Social distancing restrictions of COVID-19 are not compatible with Christianity, because may lead to its End.**

The problem of conventional adaptation may be given by a definition of static, deterministic world. **The proliferative correlations of cancer lead to the resonances between the degrees of freedom.** When we increase the value of energy, we **increase the regions where randomness prevails**. For some critical value of energy, chaos appears: over time we observe *the exponential divergence of neighboring trajectories*. For fully developed chaos, **the cloud of points** generated by a trajectory leads to *diffusion*. Here we must as first formulate a **new Main Natural Law: the HYBRID Quantum Entanglement Entropy (HQEE)**. **Through above resonances the QEE is causing a metastasis of correlations, antagonistically intertwining (coincidences) all types of potentially conflicting interests.**

## 7. ACKNOWLEDGMENTS

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