Number 35 | September 2018

# EdgeScience

Current Research and Insights

## SPECIAL ISSUE

# On Meaning

Also

## Everyday Visions

## Hypothetical Entities

A publication of the Society for Scientific Exploration

**EdgeScience #35**
September 2018

EdgeScience is a quarterly magazine.
Print copies are available from
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**Why EdgeScience?** Because, contrary to public perception, scientific knowledge is still full of unknowns. What remains to be discovered—what we don't know—very likely dwarfs what we do know. And what we think we know may not be entirely correct or fully understood. Anomalies, which researchers tend to sweep under the rug, should be actively pursued as clues to potential breakthroughs and new directions in science.

PUBLISHER: The Society for Scientific Exploration
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DESIGN: Smythtype Design

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ISSN 2330-4545 (Print)
ISSN 2330-4553 (Online)

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## FEATURES






Cover image: Man on the edge of a cliff, Orla/iStock

**Imants Barušs**

# Meaning Fields:

## Meaning Beyond the Human as a Resolution of Boundary Problems Introduced by Nonlocality

Bill Bengston can heal mice that have been injected with cancer. The mice in a series of four experiments had an expected fatality rate of 100% within 14 to 27 days, yet when Bengston placed his hands on the mouse cages and engaged in a mental technique in which he rapidly imagined desirable objects or events, the tumors ulcerated, imploded, and disappeared, so that 29 of the 33 mice were restored to a state of health (Bengston, & Krinsley, 2000). This is an example of remote influencing, a nonlocal effect in which mental events have physical correspondences without any apparent ordinary physical mechanism through which such an effect can occur.

I think of remote influencing as the "output side," and remote viewing, the perception of events without any apparent ordinary physical mechanism through which that could occur, as the "input side." Examples from my own experience come from a remote healing study in which I used techniques derived from Matrix Energetics to try to influence participants in my study. From my home office, I would email a participant to say that I was going to begin a session for her. Then I flipped a coin. If the coin came up heads, I would go through the remote healing protocol, and, if it came up tails, I would do nothing further. Participants were asked to score their agreement with three statements: whether anything unusual had happened during that time, whether they had felt more fatigued, and whether they had felt more energized. The absolute value of the difference between being fatigued and energized was statistically significantly different between following through with the remote healing protocol or not following through with it (Barušs, 2013). In other words, participants appeared to be affected by what I was doing.

Bill Bengston

One of the more dramatic examples of apparent remote influencing occurred one night with Participant 05. In my notes I had written "I felt that something had come up with your health. I . . . was led to the lower back of your head. Possibly back teeth or jaw" (Barušs, 2013, p. 48) and used some techniques to try to clear the problem, although I could also "see" that I could not make the problem go away completely. Before she knew whether or not I had done anything, my participant had written "As for the session, it feels like it was an actual one. . . . I have had a lot of neck pain for the past several weeks, and today it seems to be almost gone" (Barušs, 2013, p. 49). Having heard from her, I sent her my description of what I had done and, after reading it, my participant wrote: "It is amazing how precise you were with the neck pain. I cannot believe the relief I feel. Whenever you perform these sessions, it completely transforms how I feel" (Barušs, 2013, p. 49).

I conceptualize each person as being in a dynamic interplay with the rest of the universe through the continuous input and output of anomalous interaction with it. Some people have no explicit awareness of these underlying processes and are probably ineffective at using them, whereas others have varying degrees of explicit awareness and ability. But it would appear that we are massively nonlocally interconnected with the rest of reality. With the accumulation of good evidence from both field studies and laboratory research, there is growing acknowledgment within the scientific community that this is, in fact, the case (Barušs and Mossbridge, 2017).

However, now we have a new problem, which we did not have before. We have a boundary problem. If all of reality is regarded as being connected through local action, then the boundaries of events are naturally established by their physical boundaries in space and time. In a nonlocal universe, in which consciousness can interact with anything, anywhere, and at any time, boundaries created by physical extension no longer have the power of containment. So what determines the boundaries of events? Let me introduce this problem by considering several examples where this becomes apparent.

### Examples of Boundary Problems

The problem of determining boundaries becomes apparent in Bill Bengston's non-contact healing studies, in which not only the experimental mice but control mice that are not being treated remitted from cancer (Bengston, 2010). I was struck by

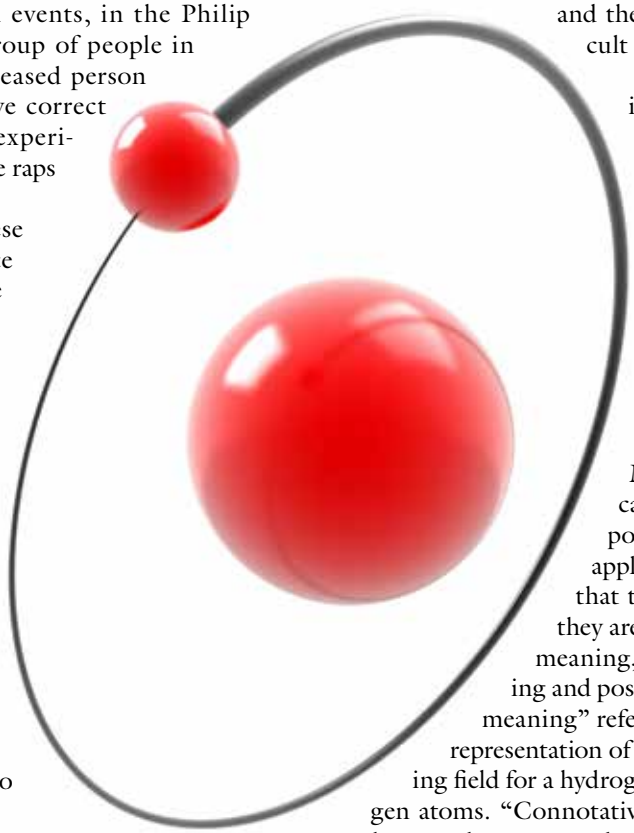
one particularly baffling such example. Bill told me that some students had placed a cage with a cancerous mouse under a lab bench without telling him; and that that mouse, without being treated or even without having received Bill's attention, had remitted. Why did healing extend to that mouse as well as the mice he was trying to heal? And why did the healing intention stop at that mouse rather than healing the other mice that were in reasonably close physical proximity to Bill? And, for that matter, why then did it not extend to all mice everywhere?

This is not just a problem for consciousness but for any nonlocal phenomena, which is to say, for any events that are linked across space and time without apparent locally causal mechanisms. According to physicist Lee Smolin, hydrogen atoms can recognize one another's histories, and if the histories are similar, then they can copy each other's properties. "There's no need for the two atoms to be close to each other for one to copy the other's properties; they just both have to exist somewhere in the universe" (Smolin, 2013, p. 161). Well, this is strange. How does a hydrogen atom reach out to other hydrogen atoms? How do hydrogen atoms know their own kind? How is a "similar" history recognized? How do they "copy" properties? And since when do atoms get to be psychic?

There are other examples. In quantum eraser experiments, a two-slit optical device switches between the presence and absence of an interference pattern based on the quantum states of an entangled photon in a separate stream away from the device, with no apparent mechanical action that could allow for such switching to occur (Walborn, Terra Cunha, Pádua, & Monken, 2002).

And, back to people-sized events, in the Philip experiment, in the 1970s, a group of people in Toronto created a fictional deceased person who was apparently able to give correct answers about himself to the experimenters through anomalous table raps (Owen, 1976).

What is common to all these phenomena is that the occurrence of the phenomena requires the recognition of specific knowledge without there being any physical mechanism through which the necessary knowledge can be conveyed. To explain these disparate examples, I propose the notion of *meaning fields* that carry the necessary knowledge and intelligently structure events in physical manifestation. If their ontological existence is unpalatable for the reader, then they can be simply regarded as a reasoning heuristic whose mechanism of action remains to be discovered.



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## Meaning Beyond the Human

Materialism is so deeply ingrained in our Western intellectual tradition that we often do not recognize its presence in our thinking. So it is that we appear to naturally assume that nature is strictly mechanical and that meaning resides only in humans. So, for instance, we assume that the year 1864, or cancer, or Bill's non-contact healing experiment, has no meaning outside of the human assignment of meaning to it. For nature, there is no separation of itself into years, or cancer vs. non-cancer, and certainly no idea what belongs to Bill's experiment and what does not. But what if our assumption is false? What if meaning does extend beyond the human? What if nature were to somehow have inherent intelligence that is at least partially compatible with our own?

There are some precedents for meaning beyond the human. For anthropologist Eduardo Kohn, engagement in a field study in Ávila, Ecuador, led him to the realization that "encounters with other kinds of beings force us to recognize the fact that seeing, representing, and perhaps knowing, even thinking, are not exclusively human affairs" (Kohn, 2013, p. 1), so that, for instance, "forests think" (Kohn, 2013, p. 22).

Also, neuroscientist Christof Koch has had an intuition that "meaning" exists in the universe. In an interview in *The Atlantic*, Koch said: "It's just that I often feel—I don't know—I find it very difficult to talk about. I can't really describe it. I just feel the universe is filled with meaning. I see it everywhere and I realize it's a psychological mindset. I fully realize other people don't have this. I have it. It's very difficult to explain where it comes from. I just have this firm belief and the experience of numinosity. It's difficult to put into words." (Paulson, 2012)

And there has been increasing interest in extending the attributes of mind to non-sentient aspects of the physical universe (cf. Menary, 2010; Skrbina, 2005). In other words, my explicit extension of meaning beyond the human is congruent with some other contemporary efforts.

## Characteristics of Meaning Fields

Meaning fields are fields in the technical sense that they are defined at each point in space and time and potentially apply to whatever is found in that space at that time. They are *meaning* fields in that they are capable of *denotative* and *connotative* meaning, as well as, probably, *inherent* meaning and possibly *existential* meaning. "Denotative meaning" refers to the events that are signified by a representation of them, so that, for example, the meaning field for a hydrogen atom would apply to actual hydrogen atoms. "Connotative meaning" refers to associations of denotated events, so that a meaning field for hydrogen atoms

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could operate in the context of all atoms and subatomic processes. It is difficult to denote the meaning of "inherent meaning," but I use that expression to refer to the essential nature that something has as itself that is not just its informational content. In the case of hydrogen atoms, there is an essence of what hydrogen atoms are. "Existential meaning" refers to the notion of existential purposiveness in the context of existential qualia. If a meaning field not only has essential nature but experiences that essential nature as itself, then it would have existential qualia. And if such qualia are experienced as being meaningful, then we would have the presence of existential meaning. In the case of hydrogen atoms, their meaning field could have a sense of its own existence and purpose. The first three types of meaning give meaning fields the capacity to create boundaries by parsing events, so that, for example, they "know" which mouse is in Bill's healing experiment and which one is not. I intend this in a strong sense, in that meaning fields have the ability to make, possibly non-algorithmic, judgments about what falls under their influence and what does not.

Meaning fields affect reality through whatever mechanism it is that human beings use when they are remote viewing and remote influencing. They structure the form that events take at any level of existence. They are interrelated in that they are both nested and overlapping. They are not only spatially nonlocal, but temporally nonlocal, in that the content of meaning fields can be modified by events from the past or future. Events are "tuned" to one meaning field rather than another. Meaning fields can interact directly with human meanings so that human beings can "tune" to different meaning fields as well as modify meaning fields according to some weighting algorithm. The "rules" by which meaning fields function are also meaning fields, which is to say that all meta-levels are meaning fields.

So, in particular, there is a meaning field for Bill's noncontact healing experiments. And there are interactions with meaning fields that can explain experimenter effects. For instance, control mice that were sent to unknown locations "far away" did not remit. According to this theory of meaning fields, the reason that they did not remit is not because they were physically removed, but because the physical removal created "psychological" removal so that they were no longer regarded as being part of what was happening in the laboratory. As another example, biology students whose mice remitted at

> "By imagining that meaning exists beyond the human in the form of meaning fields, new ways of conceptualizing phenomena became available."

home but not in the biology laboratory had an overlapping meaning field with which to contend in the laboratory, namely, that within the discipline of biology there is widespread belief that such remission is impossible, thereby creating a meaning field that attenuates healing intention.

In the case of Smolin's "psychic" hydrogen atoms, there are meaning fields that govern the behavior of the hydrogen atoms. In quantum eraser experiments, the experimental results follow meaning fields created by physicists' expectations. In fact, a prediction that arises from this theory is that physicists can unwittingly create meaning fields that give rise to phenomena that are interpreted as the presence of particles whose existence physicists have predicted, not because they are actually there in the first place, but because enough physicists predicted their existence with sufficient intensity. Just as in the Philip experiment where nature reflected a fictional character back to its creators using table raps, so nature could be reflecting the existence of fictional subatomic particles back to physicists using the Large Hadron Collider.

## Conclusions

The gradual proliferation of anomalies in which there appears to be application of knowledge without any apparent physical mechanism through which the knowledge could be applied has led me to rethinking the fundamental structure of the universe. By imagining that meaning exists beyond the human in the form of meaning fields, new ways of conceptualizing phenomena become available. In particular, it seems to me that as we conduct experiments, we are never just interacting with a mechanical system but, rather, with an intelligence that is responsive to the meanings that we attach to it. And if we query it the right way, perhaps we can get unexpected answers in return.

## Acknowledgments

I thank my research assistant Shannon Foskett for her critical comments and editorial assistance in the preparation of this paper and King's University College for financial support for my work.

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