

Science and/or Religion: a 21st Century Debate

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Self-Evident Experience: A Challenge to the Empirical Study of Religion

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Abstract: Empirical psychology's philosophy of science traditionally orients by Popper's *Critical Rationalism*. This paradigm has been successful with observable behavior and some aspects of emotion and cognition. Still, phenomena like spirituality, empathy, or love have been neglected because they can neither be easily communicated nor instantly replicated. I propose to enlarge the scope of empiricism by accepting Self-Evident Experience (SEE) as a source of "soft" empirical data, as long as they (a) can be interpreted within a rationalist framework and (b) are supported by cumulative experiences by others in the course of time. Applying this approach to SEE of a spiritual or religious nature, the theological system of the individual's denominational affiliation serves as the rational framework (a), and experiences similar to others serve as the accumulated "database" (b), both supporting the validity of the experience. In the sense of *Critical Rationalism*, apart from arguments (a) and (b), criteria for "falsifying" SEE are suggested: Experiences which are in line with an individual's or society's expectations and which lack an impact on the individual's further course of life will be attributed less validity than experiences which put the individual at risk in today's climate of skepticism and which substantially influence his or her life.

Keywords: Critical Rationalism, empirical psychology, Self-Evident Experience, mysticism

Traditional Psychology and its Philosophy of Science

Empirical psychology, as it was practiced at an academic level since the early 20th century, has adopted Popper's¹ *Critical Rationalism* as its consensual epistemological approach. *Critical Rationalism* refuted naive empirical positivism by proposing that by empirical means, certainty cannot be obtained. Whereas positivism sought to find the true nature of a thing or a phenomenon by generalizing from single observations, *Critical Rationalism* holds that hypotheses have to be deducted rationally from theories; by testing these hypotheses empirically they can be falsified but never be verified. If confirmed, hypotheses are accepted only provisionally; if unconfirmed, hypotheses are falsified and the theoretical assumptions underlying the hypothesis will be discarded or modified. Thus, according to Popper, scientific theories in the first place must meet the requirement of falsifiability and, in the second place, must not be falsified up to now.

Critical Rationalism, although questioned, for example by Kuhn's² "normal science" and Feyerabend's³ critical position of scientific practice, today is the standard paradigm both in the natural sciences and

¹ Popper, *Logik der Forschung*.

² Kuhn, *Die Struktur wissenschaftlicher Revolutionen*.

³ Feyerabend, *Wider den Methodenzwang*.

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in academic psychology. Accordingly, previous approaches to an understanding of the human psyche, derived from introspection and a worldview common to the humanities have been largely abandoned (e.g., Carl Jung's and William James' psychology of religious experience or Wilhelm Dilthey's "understanding" approach to psychological phenomena).

Adopting *Critical Rationalism* as the central paradigm of psychological research was highly successful in areas which focus on a biological understanding of the psyche (e.g., behaviorism and learning theory, neuropsychology, many areas of clinical psychology, many aspects of development and individual differences). At the same time, however, empirical psychology traditionally excluded phenomena from its focus of interest, which were neither overtly observable nor instantly replicable, but somewhat subjective by their nature: Self-evident phenomena similar to a religious experience, feeling empathetic with another individual or falling in love can hardly be evoked by experimentation, and, if present, can hardly be objectively communicated or measured in the laboratory. Such experiences may *only* be expected to happen spontaneously and will hardly occur under the scrutiny of scientific observation in the laboratory. Therefore, such phenomena over the past decades have largely been dismissed from the attention of empirical psychology.

Similarly, traditional empirical psychology almost exclusively studied mostly white middleclass U.S. Americans or citizens of the northwestern part of the present European Union, while neglecting cultural differences, especially with regard to participants from Northern and Sub-Saharan Africa, Asia, and South America. Without questioning the matter further, it was assumed that experience, personality, and clinical symptomatology would follow a universal pattern, identical with or at least similar to the one found in the "West".

By the turn of the millennium, however, empirical psychology widened its scope in both respects, and a paradigm change began. For example, Haidt⁴ argued convincingly in favor of an emotional and intuitive basis of moral decisions in contrast to the previous exclusively rationalist view. Moral Foundations Theory (MFT) pointed to cultural differences of ethical judgment and decision making and confirmed its expectations on an empirical basis (Graham et al.⁵, Haidt & Joseph⁶, Haidt & Kesebir⁷). In the field of clinical psychology, the previous supremacy of a merely "Western" view was also rejected and a more appropriate paradigm of culturally specific health concepts was suggested and confirmed by empirical findings (Mezzich, Kleinman, Fabrega, & Parron⁸; Shweder⁹).

In spite of this encouraging development, however, today's psychology still adheres to a traditional understanding of empiricism. According to current psychology's understanding, and following the *zeitgeist*, phenomena of self-evident experience are still deemed to be improper objects of empirical study.

Sources of Self-Evident Experience and Cultural Context

Self-Evident Experience can be generated by a multiplicity of sources, for which only some can be mentioned here within limited space. Examples of such sources are religious or spiritual encounters with the Divine, occurring either spontaneously or following prayer or meditation (e.g., Wiebe¹⁰), Near-Death Experiences (e.g., Aspell & Blanke¹¹; Zaleski¹²), Out-of-body Experiences (e.g., Aspell & Blanke¹³; Green¹⁴), or spiritual

⁴ Haidt, "The Emotional Dog," 817.

⁵ Graham, "Mapping the Moral Domain," 379.

⁶ Haidt & Joseph, "Intuitive Ethics," 65.

⁷ Haidt & Kesebir, "Morality," 821.

⁸ Mezzich et al., *Culture and Psychiatric Diagnosis*.

⁹ Shweder, "The Cultural Psychology of Suffering."

¹⁰ Wiebe, *Visions of Jesus*.

¹¹ Aspell & Blanke, "Understanding the Out-of-Body Experience."

¹² Zaleski, *Otherworld Journeys*.

¹³ Aspell & Blanke, "Understanding the Out-of-Body Experience."

¹⁴ Green, *Out-of-the-Body Experiences*.

experiences induced by psychedelic substances, the so-called entheogens (e.g., Grof¹⁵; Roberts & Hruby¹⁶). These are sources of Self-Evident Experience frequently reported by individuals from “Western” cultures.

Self-Evident Experience must be seen in a cultural context, however, and both sources and themes of such experience may be expected to vary between cultures, and experiences should be interpreted within the respective cultural context. For example, hallucinations may be a common phenomenon among Shamanic priests, while they are not in “Western” culture. It may be expected that collective Self-Evident Experience is more frequently encountered in non-Western, collectivist cultures than it is in the “West.” In Sub-Saharan Africa voodoo and supernatural beliefs are common, existing with a cultural practice of internally and externally induced Self-Evident Experience, as well as of Self-Evident Experience occurring in a state of trance¹⁷.

All human experiences, including empirical results under scientific scrutiny, occur within the cultural framework of the observer. According to Löffler¹⁸, this context includes both the individual’s theoretical or dogmatic assumptions and the expectations superimposed by the cultural background. Thus, it does not come as a surprise that usually visions of Holy Mary are reported by Roman Catholics, but not by Protestants, whose dogmatic system lays far less emphasis on the adoration of Holy Mary than the Catholic one. Religious experience is “filtered” by the respective cultural background, but refers to a universal common core, which can be found around the world. As William James¹⁹ put it, this common core is established by the evidential quality of the experience, the difficulty to communicate it, its short duration, and by the passive role the individual plays in the course of the experience.

Enlarging the Scope of Empiricism

In the present paper, I suggest studying Self-Evident Experience in the field of religion and spirituality empirically along the lines of *Critical Rationalism* by enlarging the scope of empiricism beyond its present state. As outlined above, the minimal criteria of *Critical Rationalism* for scientific studies are:

- (a) A rationalist framework which allows us to put forward expectations, research questions, and hypotheses, and to interpret empirical findings on the grounds of this framework and
- (b) the possibility to falsify expectations and hypotheses on experiential grounds, i.e., theoretical expectations can be supported or disregarded, although not verified by empirical evidence.

In the case of Self-Evident Experience with a religious background,

- (a) the culturally based religious belief system or the dogmatic teachings of his or her religious denominational affiliation can serve as the rationalist framework and
- (b) empirical support for the validity of a single experience can be provided by the cumulative experience of numerous individuals adhering to the same religious belief system which can serve as the “database”. I will discuss later the additional criteria for the acceptance or rejection of a single experience.

Criteria (a) and (b) may serve as safeguards against self-deception and fraud when evaluating an individual Self-Evident Experience, which, in the positive case, will be added to the cumulative “database” of similar experiences.

An example of an early study of religious Self-Evident Experience, which was very uncommon at that time, might illustrate this. Pahnke²⁰ and Pahnke and Richards²¹, in their “Good Friday Experiment” (also known as the “Marsh Chapel Experiment”), administered in a randomized, controlled, double-blind design study psilocybin, an entheogenic substance to an experimental group of students of theology during a

¹⁵ Grof, *The Cosmic Game*.

¹⁶ Roberts & Hruby, “Toward an Entheogen Research Agenda.”

¹⁷ My thanks go to an anonymous reviewer for valuable suggestions regarding cultural aspects of Self-Evident Experience.

¹⁸ Löffler, *Wissenschaftstheorie für Theologie-DoktorandInnen (I)*, 43.

¹⁹ James, *The Varieties of Religious Experience*, Lecture XVI.

²⁰ Pahnke, “Drugs and Mysticism.”

²¹ Pahnke & Richards, “Implications of LSD and Experimental Mysticism.”

Good Friday worship service. The control group received an active placebo without entheogenic qualities, but capable of inducing marked body sensations. The aim of the experiment was to test the hypothesis that psilocybin would induce intense spiritual experiences in the experimental as opposed to the control group. Whereas most participants of the experimental group reported spiritual experiences which were among the most important ones in their lives, this was not the case for the control group. In a 25-year follow-up, Doblin²² still found that in most members of the experimental group, as opposed to the control group, Self-Evident Experience during the Good Friday Service had substantially changed their spiritual lives.

The experiment took place at Andover Newton Theological School (Newton Centre, Mass.), with most students belonging either to the United Church of Christ (UCC) or to American Baptists (ABCUSA). Thus, the rationalist framework of the study put special emphasis on Good Friday as the most important religious holiday, and the occasion when the experiment was conducted had been selected according to this background. The hypothesis of the study had been developed on the basis of theoretical considerations about the entheogenic effects of the substance (Criterion (a) above). These assumptions were tested empirically in a double-blind, randomized design study and confirmed by the participants' reports, both in the original as well as in the follow-up study. Moreover, the findings are in line with the accumulated evidence by previous reports about mystical experiences induced by psilocybin (Criterion (b) above).

Although the main findings of the study were replicated by Griffiths, Richards, McCann and Jesse²³ on a group basis, of course the mystical experiences reported by the experimental group of the Good Friday Experiment would hardly have been replicable in a *strong* sense. That is, if the same individuals would have participated in an equally designed experiment conducted on Good Friday one year later, they might not have reported identical experiences. Moreover, without question, these experiences were subjective by their nature and could be communicated only with difficulties and in an imperfect way. Finally, and possibly most importantly, the rational framework of the study was derived from a theological basis rather than from natural science. These arguments might lead traditional psychologists to exclude the experiment from the body of "proper" psychological science and receive the results with suspicion.

In contrast to such traditional and somewhat narrow-minded positions, I suggest including Self-Evident Experience in scientific psychology, as long as the basis criteria of *Critical Rationalism*, as outlined in points (a) and (b) above, are met.

Theological Background

The present approach not only contrasts to the tradition of empirical psychology, but also to the mainstream of Christian theology. Although in the times of the early Church different positions were not uncommon, theology was highly influenced by Thomas of Aquinas and his rationalist position, according to which God in the first place had to be recognized by rational argumentation. Some remaining aspects of God, e.g., the Trinity of Father, Son, and Holy Spirit, which cannot be determined on a rational base have to be believed. This emphasis on rationalism and fideism leaves little room for personal religious experience and, consequently, for an empirical scientific approach.

Interestingly, in his old days, after having a vision of and dialogue with Jesus Christ, Thomas of Aquinas finished his writing activities and dismissed his previous almost exclusively rationalist position: "Everything I have written seems like straw by comparison with what I have seen and what has been revealed to me" (Tugwell)²⁴. However, traditional theology tends to put this report in the area of fable, and does not interpret it as a serious source, according to which Thomas had seriously abandoned his previous point of view. Consequently, the Roman Catholic and the Protestant churches focused on a rational or intellectual way of revelation, whereas the Orthodox Churches allowed for a more emotional, experiential access to the Divine, e.g., by meditation and prayer (for details, see e.g. Nelson²⁵).

²² Doblin, "Pahnke's 'Good Friday Experiment'."

²³ Griffiths, Richards, McCann and Jesse, "Psilocybin Can Occasion Mystical-Type Experiences."

²⁴ Tugwell, *Albert and Thomas*, 266.

²⁵ Nelson, *Psychology, Religion, and Spirituality*, 98.

Apart from the theological mainstream in the “West”, and in line with the standpoint put forward in the present paper, several authors have argued in favor of accepting personal religious experience as an important and reliable source of knowledge. Dulles²⁶, a Catholic theologian, for example, accepted personal mystical experience as one possible source of revelation, in addition to the teachings of the Bible or the Church. Swinburne²⁷ went much further with his argumentation, according to which the explanation of an individual’s religious experience as being based on “reality” should be judged by two criteria: 1) its “prior probability”; and 2) its “explanatory power”. The report’s “prior probability” can be assessed by examining, whether it is in line with the existing accumulated evidence from experiences similar to other people; its “explanatory power”, on the other hand, is determined by the fact that the experience would be extremely improbable if not based on reality. According to the “Principle of Credulity”²⁸, people, in most cases, can be trusted to perceive reality correctly. Following the “Principle of Testimony”²⁹, most people may be expected to report their experiences correctly. Taking these considerations together, from an empirical point of view, according to Swinburne³⁰ “the evidence of religious experience is [...] sufficient to make theism overall probable”.

Caroline Frank Davis pointed to the fact that atheism might be supported by similar cumulative arguments as theism. In this respect, she examined three types of arguments; (a) “description-related³¹,” (b) “subject-related³²,” and (c) “object-related challenges³³” against an experiential or empirical approach to theism. Description-related arguments pertain to the fallibility of reporting individuals and to the possibility of contradictory reports. Such challenges can be met by the fact that religious experience does not occur *per se*, but within the rational context of religious belief systems, adding credibility to the reports. Subject-related challenges result from the sometimes problematic states of consciousness, under which the experiences have occurred (e.g., dreams, substance induced states). Davis met this type of argument by the fact that very meaningful insights have been obtained during such states of consciousness (e.g., Kekulé’s detection of the benzene ring). Object-related challenges pertain to the nature of the alleged reality perceived in the course of a Self-Evident Experience. The objects of some insights may be logically impossible or contradicting each other. Referring to the cultural nature of religious experience, the author recognizes marked differences, stemming from the pre-existing expectations and belief system of the individual. This argument can be met by the fact, however, that many religious experiences are universal by their nature, revealing what different religious traditions have in common. Finally, Davis addresses the reductionist argument, according to which religious experience would be “nothing but” the result of neurobiological processes in the brain, either reflecting the perceiver’s needs and expectations or being merely the results of some psychopathological state. Such argumentation can be met, however, by the fact that many religious experiences do not reflect the individual’s expectations or needs and may even put the perceiver at risk of contempt or ridicule by a materialist society. In addition, psychopathological symptoms do not occur as single phenomena, but as parts of syndromes, which obviously are not fulfilled by most individuals reporting religious encounters. Summarizing these arguments and taking the multiplicity of mystical experiences into account, Davis concluded that theism may be attributed a far higher probability than atheism.

Wiebe³⁴ drew the readers’ attention to “semi-experimental” evidence as “one class of experiences reported in many circumstances, at many places, by many people, and over a long period of time”. Such semi-experimental evidence has an in-between position as opposed to the natural sciences’ conception of “hard facts” on the one hand, and merely anecdotal reports on the other. In line with the present paper,

²⁶ Dulles, *Models of Revelation*, Chapter 5.

²⁷ Swinburne, *The Existence of God*, 80.

²⁸ Ibid., 310.

²⁹ Ibid., 322.

³⁰ Ibid., 341.

³¹ Davis, *The Evidential Force of Religious Experience*, 115.

³² Ibid., 127.

³³ Ibid., 132.

³⁴ Wiebe, *Visions of Jesus*, 90.

Wiebe advocated scientific attention to be drawn to semi-experimental evidence and accepting it as a serious contribution to empirical knowledge.

Accumulated Knowledge

Like Swinburne, Davis, and Wiebe, I place an emphasis in the present paper on the accumulated knowledge as an empirical safeguard against arbitrariness, fraud, and self-deception when evaluating single cases of Self-Evident Experience. Space does not permit going into details of the “database” of Self-Evident Experience accumulated in a multiplicity of cultures and over many centuries. As the author has his religious roots in the Christian, Roman Catholic tradition the following examples reflect this personal background and will be limited to the Abrahamic religions. Examples from other religious traditions and cultures might be added in future publications with co-authors from other parts of the world.

By following God’s command to leave for the country of Canaan, according to the Tora Abraham founded the tradition of Judaism, Christianity, and Islam. Moses was sent back to Egypt by Yahweh in order to relieve his people from slavery. He received the Ten Commandments on Mount Sinai and God spoke to him in the “Burning Bush”. Christianity’s Old Testament reports on numerous encounters of the Prophets with God, promising the arrival of the Savior, thus laying the basis of Christianity. The Christian Gospel in the first century was spread over the ancient world by Saint Paul after his vision of Christ, which had caused him to abandon his persecution of Christians and to convert to Christianity. It may well be speculated that *without* this encounter and Saint Paul’s unprecedented engagement as a missionary, Christianity would have remained a small, comparably unimportant branch of Judaism. Islam, on the other hand, goes back to the archangel Gabriel and his revelation of the Quran to Prophet Mohammed.

In Christianity, Francis of Assisi received an appearance which fundamentally changed his life: Christ’s order to rebuild his Church. Martin Luther abandoned his plan of becoming a lawyer after his encounter of God in a thunderstorm and Ignatius of Loyola founded the Jesuit order after his vision of Jesus and the Holy Mary. Countless Christian mystics have reported their personal experience of God. Evelyn Underhill, Dean W. R. Inge, and Nathan Söderblom serve as prominent examples, named by Dulles³⁵.

Still, Wiebe’s³⁶ critical view of reports from previous centuries should be mentioned. His skeptical standpoint results from the fact that many reports are anecdotal by their nature and must be seen within in the context of their time. In spite of this critique, the same author identified Theresa of Avila and Julian of Norwich as reliable witnesses on the grounds of their awareness of possible pitfalls and the richness of details in their reports. In line with his distrust of ancient reports, Wiebe³⁷ presented 30 contemporary and well-documented accounts of visions of Jesus.

Criteria for Falsification

If Self-Evident Experience, following the intention of this paper, should become a serious candidate of being studied by empirical psychology, according to *Critical Rationalism*, hypotheses must be falsifiable. Quite naturally, such falsification cannot be achieved in the first place by inferential statistics; it should be possible, however, to name criteria, toward which reports about self-evident religious experiences can be tested with respect to their validity. Some of these criteria follow from the arguments presented.

1. The most important safeguard against arbitrariness, wishful thinking, and other sources of error is a pre-existing rational system in the sense of Popper³⁸ – in the case of religious experience, the framework of the respective denomination.

³⁵ Dulles, *Models of Revelation*, 69.

³⁶ Wiebe, *Visions of Jesus*, 7.

³⁷ Ibid., Chapter 2.

³⁸ Popper, *Logik der Forschung*.

2. Self-Evident Experience typically has important aspects in common with countless previous experiences reported by others from the same cultural background (i.e., the “cumulative argument” presented by Swinburne³⁹).
3. Complimentary to criterion (2), however, Self-Evident Experience does not merely fulfill the individual’s expectations, but adds a somewhat “surprising” aspect to his or her previous experience and knowledge. Even more drastically, in many cases religious experience runs counter to the individual’s expectations and previous concept of his or her life and may put the individual at risk of social exclusion, if not persecution (Wiebe⁴⁰). St. Paul’s conversion experience may serve as an example.
4. Self-Evident Experience in many cases is teleological by its nature, i.e., it points the way for the individual’s consecutive life. Typically, according to Swinburne⁴¹, religious experiences are validated by their long lasting effects on the perceiver’s life. Again, this is exemplified by Saint Paul’s conversion, but also by the 25-year follow-up reports by the participants of the Good Friday Experiment.

To summarize, reports of religious Self-Evident Experience would be “falsified” if they would not be based on a rational, pre-existing belief system, would not be supported by other people’s cumulative experience, would only fulfill the perceiver’s previous expectations, and/or would remain without impact on his or her further life (religious or spiritual). Quite clearly, falsification in this case does not necessarily point to self-deception or fraud. It does imply, however, that reports which do not meet the criteria presented will not fulfill the requirements to serve as reliable “data” in a scientific context.

Summary and Conclusions

Taking religious experience as a prominent example, I have put forward in the present paper arguments for enlarging the scope of empirical psychology by accepting Self-Evident Experience as an object of scientific study. This can be performed without violating the basic requirements of *Critical Rationalism*, namely a rational basis of the assumptions and empirical tests with respect to their falsifiability.

Whereas traditional academic psychology was reluctant to accept phenomena which were not directly observable as “proper” objects of scientific study, by the turn of the millennium some changes were taking place. An emotional or intuitive approach to the explanation of human experience and behavior has become more acceptable within the scientific community and cultural differences today receive more attention than during the 1970s and 1980s. In spite of this beneficial development, academic psychology still is reluctant to accept Self-Evident Experience as an object of study on the grounds that such phenomena cannot be replicated instantly and are subjective by their nature.

Traditional theology, on the other hand, tends to adhere to a paradigm of “much rationalism supplemented by some fideism”, whereas personal experience of the Divine is regarded with suspicion. Contrary to the mainstream, however, several authors have proposed a paradigm shift towards empiricism. At least by some authors, personal religious experience, as long as it is interpreted within the framework of rational preconceptions, and in line with the cumulative evidence already established, is being taken seriously as a source of revelation. In this respect, theology has proceeded further by abandoning traditional assumptions than academic psychology.

In the present paper I have aimed at transferring this encouraging development from theology to academic psychology. By widening the scope of what constitutes empirical “data”, future psychology can examine religious Self-Evident Experience within the current paradigm of *Critical Rationalism*, as long as “soft” criteria with respect to the falsifiability of observations or experiences are applied.

These considerations might assist in promoting cooperation between theology and academic psychology in the study of Self-Evident Experience. Traditionally, the two disciplines assumed that their

³⁹ Swinburne, *The Existence of God*, 302.

⁴⁰ Wiebe, *Visions of Jesus*, 106.

⁴¹ Swinburne, *The Existence of God*, 323.

epistemological background was too different to find a common basis for such cooperation. In contrast to this traditional view, from the arguments presented, an interdisciplinary approach seems promising and innovative.

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