# Toward a "Parapsychological Synthesis": Proposals for integrating theories of psi

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Abstract: Throughout the history of parapsychology, complaints about a lack of a theory that would explain psi phenomena have regularly been advanced. Indeed, a theory that can explain psi in a manner comparable to robust theories in mainstream sciences does not currently exist. Moreover, the existing parapsychological theories stand largely separate and represent disconnected approaches. In this contribution, I suggest that the situation regarding theories of psi could be improved by developing a synthetic theory that posits specific core assumptions on which existing theories and models of the origins of psi could be integrated. Formulating such a theory that focuses on the communalities and compatibilities of existing models rather than on their differences would increase the coherence of parapsychological theorizing and would therefore benefit parapsychology. In order to show that such an approach has already worked in the past, I also introduce the "evolutionary synthesis" that was developed by biologists about 90 years ago. I furthermore argue that the demand that parapsychologists must develop a theory of psi that complies with contemporary mainstream sciences is principally inappropriate due to the very nature of psi. This is no reason for regret because the exceptional significance of parapsychological research lies in providing direct empirical evidence for a non-physical foundation of existence. In this respect, it holds a leading role in shaping the most accurate science-based model for understanding our world.

Keywords: Theories of psi, parapsychological synthesis, evolutionary synthesis, causation, Reality

#### Introduction

Throughout the history of parapsychology, numerous authors have advanced complaints about a lack of a scientific theory that could convincingly explain psi phenomena like telepathy, clairvoyance, pre- and retrocognition, and psychokinesis. Recent examples of such complaints were published by critics of parapsychology Arthur Reber and James Alcock (2019, 2020), but also parapsychologists have maintained that a lack of a theory hampers the scientific progress and acceptance of parapsycholog-ical research (e.g. Bancel, 2018). However, parapsychologists and associated colleagues have already developed numerous theories and models in order to understand and explain psi phenomena and 1 Michael Nahm, Institute for Frontier Areas of Psychology and Mental Health (IGPP), Wilhelmstrasse 3a, 79098 Freiburg, Germany, nahm@ igpp.de

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their underpinnings. Recent overviews introducing such models or theories have been presented by Edward May and Sonali Bhatt Marwaha (2015) as well as by Edward Kelly and colleagues (2015). Nevertheless, there are reasons that give rise to the notion of the lack of a comprehensive theory for psi. One reason is that some people, especially critics of parapsychology, claim that parapsychologists must have a theory that is roughly as robust as those in "hard" mainstream sciences and that comprise the performance of successfully replicable experiments. This claim typically implies the supposition that psi phenomena must follow the usual mode of reductionist and mechanistic upward causation; there must be a comparable "causal mechanism" (Reber & Alcock, 2019, 2020). It is true that a parapsychological theory that would explain psi phenomena in this manner does not currently exist. Not surprisingly, authors who believe that all processes of life can be accounted for in terms of "flesh, blood, atoms, and molecules" find the lack of such a parapsychological theory deeply problematic (Reber & Alcock, 2019). However, the demand that parapsychological theories should parallel theories in mainstream sciences with regard to their predictive and explanatory power is ill-founded. Parapsychology's unique feature is that it is concerned with phenomena that are elusive, spontaneous, difficult to replicate and to predict, that do not seem to follow familiar modes of causation, and that often involve specific individuals and require specific mental states. This peculiar nature of parapsychology's object of research is the precise reason why it is not yet part of mainstream science. Therefore, one thing that can be predicted about parapsychology is that developing robust explanatory models for the studied phenomena will be much more challenging than in mainstream sciences. If psi behaved "normally", reliably, and followed the usual modes of causation, parapsychologists would have developed widely accepted theories for its occurrence and behavior long ago. But unsurprisingly, this has not happened because parapsychology deals precisely with phenomena that do not fit into this frame of mainstream science. Hence, expecting parapsychologists to develop a robust and widely accepted theory for such an elusive and erratic phenomenon like psi equals the demand that they must square a circle.

The second reason that there appears to be a lack of theory in parapsychology is that the numerous hypothesized models stand largely separate and appear to represent disconnected approaches. Compared with most other branches of natural science, parapsychologists do not hold a uniform opinion regarding explanatory theories for their research objective. This situation can also be attributed to the already described elusive nature of psi that renders the development of widely accepted theories principally difficult. But I think that there is much space for improvement. As mentioned already elsewhere, I suggest that instead of promoting several different theories or models of psi, a majority of parapsychologists could arrive at the formulation of one synthetic theory in which several sub-theories are harmoniously linked with each other, covering specific aspects of psi (Nahm, 2019a). This could be achieved by developing an overarching theoretical framework that might be termed the "parapsychological synthesis" referencing the "evolutionary synthesis" or "modern synthesis" that had been developed by biologists between 1930 and 1950 that integrated results of several apparently incompatible branches of research into a coherent and widely accepted theory of evolution (Mayr & Provine, 1980).

There have already been exchanges between proponents of different models of psi, and until recently, specific workshops and symposia on such theories have been conducted (Bancel et al., 2019). But despite this, there was little progress and the different approaches continue to stand largely sep-

arate and disconnected. In publications discussing the theories of psi, the authors chiefly highlighted discrepancies to their own understanding of psi or provided mere overviews on the different models (e.g., Braude, 1996, 2002; Lucadou, 1995; Marwaha & May, 2019b; Radin, 2018; Schmidt, 2015; Stokes, 1997). I have not yet come across an explicit attempt to develop a joint synthesis focusing on the communalities of different approaches. The present article aims at renewing recent appeals to advancing the theory of psi (Bancel, 2018; Bancel et al., 2019) in order to provide the most accurate understanding of psi and its implications for understanding the world. It includes a critical eye on mainstream sciences and focuses on creating synergies that draw from ideas about psi functioning that already exist.

For this purpose, this paper is divided into three parts. The first part contains a plea for what Arthur Schopenhauer called "philosophical prudence." Reading mainstream natural science publications, it often becomes apparent that their authors have exaggerated their trust in the research methods they applied and the results they obtained, inflating their significance in inapt ways when speculating about the nature of the world. In my opinion, this is a major reason why scientists are led to make the unwarranted claim that there must be a robust theory for psi, and that the lack of such a theory implies that psi does not exist. I will elaborate on these claims that are not only unwarranted but also a sign of an inappropriately naïve understanding of what nature is, and of what science can glean from it. In the second part, I will briefly introduce relevant aspects of the evolutionary synthesis to show how its development can serve as a template for developing a parapsychological synthesis. In the third section, I will turn to explicating elements of a preliminary scaffold of a parapsychological synthesis without engaging in a detailed discussion of the pros and cons of the different theories and models. Such a discussion is beyond the scope of the present article. Rather I will focus on the larger picture and outline possible general pathways.

I am convinced that the field of parapsychology would benefit if a majority of parapsychologists would speak with one voice, develop an overarching theory, and give it a name ("parapsychological synthesis" being one out of many possibilities). As the history of science and philosophy has already demonstrated numerous times, giving a phenomenon or a theory a distinct identity will greatly increase its visibility and the possibility to assess, discuss, and elaborate upon it – take, for example, "terminal lucidity" (Nahm, 2022), and an example from the present context, the "evolutionary synthesis" (Mayr & Provine, 1980).

As final preliminaries, I will briefly outline how I understand the concepts of "consciousness" and "causation". I treat the notoriously ambiguous term "consciousness" as largely synonymous to "mind" in people, which very broadly involves all of their mental aspects, i.e. the conscious and sub-/unconscious aspects of their cognitive abilities including awareness. Regarding nature or reality as a whole, I treat the term consciousness very generally and refer to it as any potentially mind-like or even proto-mental aspect of it. As for "causation", there is a debate in philosophy regarding the precise understanding of its efficacy and its role in natural processes. When I speak of causation defined in typical mainstream sciences – such as reductionist biology – I refer to a non-teleological concept of cause and effect along the arrow of time that is usually conceived as a form of *efficient* upward causation. In this case, the behavior of elements on a subordinate level of a given system is thought to determine the behavior of

the superordinate level of organization. However, there is a discussion whether efficient causation can also function in a downward manner, in which processes of the superordinate level effect or determine the behavior of its subordinate elements. Such effects may come into play during psi phenomena such as psychokinesis. This type of causation is closely related to the traditional concept of *final* causation, which is best conceived as a form of downward causation. Possible modes of final causation currently have increased attention in nature philosophical debates, just as concepts of acausal processes such as entanglement correlations and synchronicity. It is important to keep in mind that efficient upward causation, which is most prominently assumed and applied by the mainstream biological sciences and the derivatives, is only one of several means that are assumed to govern natural processes. Where appropriate, I specify which form of causation I refer to.

### Part I: The need for philosophical prudence in science

"The world is my representation" – this is a truth which holds in relation to every living and cognizing being, although man alone can bring it into reflected, abstract consciousness. And if he really does this, philosophical prudence has entered him.

Arthur Schopenhauer (1986a, p. 31); author's translation

Since ancient times, nature philosophical concepts have generally included the tenet that the world we perceive with our biological senses does not comprise everything that exists. Prominent examples of this are the shamanic and Australian Aboriginal traditions, Indian Vedanta schools and numerous other mystical traditions. Among Western philosophies, Plato's Cave Analogy represents a noted example, and Immanuel Kant famously elaborated that the objects we perceive can only be regarded as phenomena constructed through our senses and the rational mind, but that we can never perceive and understand their true nature. A "thing-in-itself" rests behind our familiar cognizable world, and the "world-in-itself" or reality remains fundamentally inaccessible to our senses and rational mind (in the following, I will use the terms "world" and "reality" for our environment and the world-in-itself). After Kant, numerous philosophers including Schopenhauer have advanced similar arguments. Recent authors likened the world we perceive in more technical terms to an "interface" (Hoffman, 2020) and a "dashboard" (Kastrup, 2021a, b) that mediate our experiences of the reality resting behind them. The fact that all theories and models of the world we have developed to understand it better are only human constructs and not reality itself is in fact a triviality, but in practice, scientists often forget to pay appropriate attention to it. Nevertheless, some branches of modern science that assess the foundations of existence confirm this fact: there are numerous physical effects that we can observe but that we cannot explain with our rational mind (currently, at least). Take, for example, the mass- and movement-dependent relativity and curvature of spacetime. Although we can reliably deal with the law of gravity, the velocity of objects in relation to observers, and the passage of time, we cannot logically explain why and how all this arises in the manner it does, nor what the true nature of spacetime is. We have no understanding of "spacein-itself," "time-in-itself", "gravity-in-itself," or why and how our universe came into existence during a hypothetical "Big Bang." Other examples in quantum mechanics include quantum superposition, the quantum Zeno effect, the tunnel effect, non-locality or the entanglement of particles, and the dependence of the behavior of some quantum physical systems on being measured and observed. The paradoxical wave-particle duality and the results of double-slit experiments clearly demonstrate that we haven't formed a rational understanding of the nature of a "photon-in-itself."

Although we can describe and observe these phenomena with the help of sophisticated technical devices, it is only natural that we have trouble properly understanding them. Our perceptual and cognitive abilities and rational thinking evolved to cope with a mere *excerpt* of reality that allows us to make reliable predictions about our surroundings. Thus, we apprehend a stable and seemingly objective environment ruled by familiar modes of efficient causation. Hence, rational thinking, including designing repeatable experiments, works best for the excerpt of the material world that can be described in physical terms, mathematics, and in a language with a corresponding structure and grammar. In this arena, "hard" mainstream science disciplines achieved their biggest successes. When scientists analyze the deepest foundations of existence which are often barely visible and less relevant to daily life, "understanding" these foundations becomes increasingly difficult. Not surprisingly, the attempts of physicists to create a widely accepted "Theory of Everything" that comprises, in addition to theories pertaining to the mesocosm of our familiar natural environment, a mainstream-orientated unification of theories for the macrocosm (theories of relativity) and the microcosm (quantum physics) have failed. Theoretical physicists engage in speculative and controversial thought constructs that are frequently not even empirically testable (Hossenfelder, 2018). A remedy for this situation is apparently not in sight.

In this context, it is of interest that beginning with Aristotle, numerous philosophers conceived the empirical world as being composed of different superimposed and hierarchical strata or levels. Traditional classifications contain the strata of matter, life, soul, and mind (Hartmann, 1940; Wenzl, 1951). They can be further divided into numerous substrata (e.g., Polanyi, 1966, 1968). Proponents of such models have stressed in varying formulations that it is impossible to explain the organizing principle of a higher level by the laws governing the particulars on the lower level (Polanyi, 1966). Polanyi (1968, p. 1311) stated that living beings "form a hierarchy in which each higher level represents a distinctive principle that harnesses the level below it (while being itself irreducible to its lower principles)." This is why the behavior of organisms, let alone human beings, is much more difficult to control and predict than that of inanimate matter. Accordingly, the empirical evidence for modes of biological downward causation in the morphological development of organisms is drastically increasing (Levin, 2020). Consequently, even higher levels of downward causation may play a role in consciousness-induced physiological and morphological effects on body tissue, such as neuroplasticity of the brain, placebo effects, false pregnancies, purposeful changes of body temperature and heart rate, hypnotic inductions of breast enlargements, skin burns, blisters, bleedings, allergies, and the development of stigmata (Kelly, 2007; Nahm, 2012). The organizational principles of the higher levels appear not to violate those on the lower levels but are superposed on them. As a result of the new organizational principles that emerge on each level, the phenomena of life, let alone consciousness or mind, cannot be explained solely via upward causation instituted by the physical units constituting the basis of an organism. Phenomena under examination always need to be considered relative to a pertinent descriptive framework that takes their organizational and functional level into account (compare the concept of "relative onticity" introduced by Atmanspacher and Kronz, 1999).

All this is relevant for developing theories of psi because psi phenomena seem to be closely linked

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to psychophysiological effects, and, as several authors have highlighted already, may form a continuum with them (Driesch, 1933; Nahm, 2012, 2018). They are obviously related to a "psyche", i.e., to people's conscious or subconscious processes which is already implied through traditional terms like parapsychology, psychical research, or psychokinesis. Similarly, the concept of extra-sensory perception concerns human beings and higher developed species of non-human animals in which the cognitive process involved in perception entails an at least rudimentary form of (sub-) consciousness. The fundamental relationship between consciousness (or mind) and ESP is particularly epitomized by shared dreams and shared lucid dreams when two or more people share the same dream environment (for several references, see Nahm, 2019b). Moreover, the occurrence of psi phenomena is often facilitated by emotional bonds and emotional states (e.g., in crisis telepathy), which would be unthinkable without involving some form of consciousness. Hence, because parapsychologists deal with phenomena that belong chiefly to the levels of life and especially consciousness and mind, and a physicalist theory that would explain consciousness and phenomenal experience does not even exist, developing reliable theories of psi is intrinsically difficult. Rational thinking will probably never be able to explain consciousness because it can only deal with it from an inside perspective when science demands an exterior perspective to explain phenomena. It may be that consciousness constitutes a primordial phenomenon that is not reducible to anything else. And as long as there is no robust theory that would satisfyingly explain consciousness, it is very likely that no robust theory of psi as a consciousness-related phenomenon that transcends spacetime and familiar modes of causation can be developed. Seen in this light, it is actually quite understandable that parapsychologists have not yet developed a widely accepted explanation for psi that could match the robustness of theories chiefly concerned with mainstream research topics.

This lack of understanding regarding consciousness increases the problems related in the previous paragraphs about our limited understanding of the true nature of the mesocosm, macrocosm, and microcosm because *everything* we perceive and investigate can only be perceived and investigated through this enigmatic and unexplained phenomenon called consciousness.

One of the authors who tirelessly reminded his contemporaries of this fact was biologist and philosopher Hans Driesch (1867–1941), an admirer of Schopenhauer and known among parapsychologists for his vigorous advocacy of scientific parapsychology (Driesch, 1933, 1939; see also Nahm, 2021a). He insisted that all that one can directly know is that "I consciously experience something", calling this the *Urtatsache* (Driesch, 1923; in English: *primordial fact*, Driesch, 1925). Starting from this irreducible experience, though I can construct an elaborate model of the world, I can never prove that something exists independently from me, and that the world I experience is more than a coherent personal dream. However, in Driesch's view, there exist several reasons that render this solipsist perspective unsatisfying. But he made it clear that if I leave this solipsist view and concede that other beings and the world exist independently from me, this concession is necessarily based on belief, and therefore, belongs to the realm of metaphysics. Anybody who treats the world as an independent and objective entity is immersed in metaphysics already. Moreover, Driesch regarded physicalist monism as mistaken. He maintained that reality must have mind-like attributes using arguments such as: First, the only datum of the world that I can ever know for sure, the primordial fact "I consciously experience something", is purely mental. Second, every representation and experience that we can cognize in the world must have a corresponding feature in the background reality that gives rise to it. It follows that the mental primordial fact must have a corresponding foundation in reality – in other words: a mental aspect of whatever kind must also be a feature of reality or the world-in-itself (Driesch, 1929).

I have not yet come across a refutation of this argument. But if it is ever to be attempted, it would transcend the primordial fact and would not rely on something that can be known for certain. To conclude: When it comes to formulating models of the constituents of our world, including theories of psi, the arguments outlined above strongly suggest that the level of mind must be considered at least of equal importance as the level of matter – even though we understand the operational mode of the level of matter much better because of our biological conditioning. But proper usage of rational thinking, and one of its strengths, implies knowing and accepting its inherent limitations.

I hope this plea for philosophical prudence and responsibility in natural sciences serves as a reminder that one must be careful not to overrate the capabilities of the rational mind when it comes to developing sophisticated theories designed to explain the world of representations, let alone reality. This will also play a role when introducing basic elements of the potential parapsychological synthesis. I turn next to describing the basic elements of the evolutionary synthesis which can then be used as a template for developing a synthesis of parapsychological theories or models.

#### Part II: What is the "evolutionary synthesis"?

The neo-Darwinian model of evolution with its primary focus on random mutations and the subsequent selection of the best adapted individuals is widely recognized as a powerful model that can explain the evolution of life in all its facets. About 100 years ago, however, the situation was quite different. Biologists of that time were far from being unanimous regarding how evolution could best be explained. As described by Ernst Mayr, who contributed significantly to developing the evolutionary synthesis that solved this dilemma, dissent prevailed between particularly two camps: the laboratory-based experimental biologists whose main interest lay in embryology and the newly developing field of genetics, and the naturalists and taxonomists who studied whole organisms in nature and whose main interests lay in their diversity and speciation. The two camps studied evolution on different hierarchical levels (genes vs. populations), pursued different questions, and virtually spoke different languages. Combined with a substantial communication gap, the resulting "disagreement affected almost any aspect of the interpretation of evolution" (Mayr, 1982, p. 541). They did not even agree within their camps. Rather, members of different biological sub-disciplines such as geneticists, embryologists, zoologists, botanists, ecologists, or paleontologists often held personal and controversial opinions regarding the significance of a variety of different factors that might play a role in evolution. These factors were addressed in partial theories or models of evolutionary processes that included saltationism (evolution of new species via large and sudden changes) vs. gradualism (evolution of new species via small and gradual changes), the formation of new species in geographically isolated regions vs. formation of new species without geographic isolation of populations; speciation that involved the inheritance of acquired characteristics and related concepts ("soft inheritance") vs. the impossibility of soft inheritance; the assumed significance of orthogenesis (a long-lasting natural drive to develop certain structures in more and more pronounced manners, such as increasingly larger animals with increasingly larger horns), the significance of sexual selection, i.e. the formation of new species by means of continued active selection of sexual partners with particular traits by members of the other sex (such as colorful plumage of male birds), and the significance of non-physical drivers of evolution such as an "élan vital" or a specific mode of causation pertaining to life. In particular, the significance of the now famous concept of natural selection was regarded as highly critical by many biologists of that time.

This melange of rivaling hypotheses and partial theories was remedied by the architects of the evolutionary synthesis who published a number of important treatises between 1937 and 1947, and ultimately succeeded in reaching a general consensus for an overarching theory of evolution. A land-mark publication was written by eminent biologist Julian S. Huxley (1942), grandson of Charles Darwin's noted fellow evolutionist Thomas H. Huxley. The book's title is "Evolution: The Modern Synthesis" and it led to the formulation of the later alternative term "evolutionary synthesis." Huxley summarized the rationale for writing this book at the end of its preface as follows:

The time is ripe for a rapid advance in our understanding of evolution. Genetics, developmental physiology, ecology, systematics, paleontology, cytology, mathematic analysis, have all provided new facts or new tools of research: the need to-day is for concerted attack and synthesis. If this book contributes to such a synthetic point of view, I shall be well content. (Huxley, 1942, p. 8)<sup>2</sup>

This quote notes that Huxley and other authors advanced an evolutionary synthesis aimed at building bridges between the different biological disciplines. Mayr (1980) highlighted some characteristics of these "bridge builders": they were not narrow specialists but were interested in many facets of biology and had a foot in several camps. Nevertheless, they were originally trained in different disciplines such as zoology, botany, palaeontology, and systematics and therefore able to feed their expert knowledge into the emerging synthesis. As a consequence, these bridge-builders were intermediaries who linked the different conceptual frameworks and hierarchical levels of evolutionary biology. One of the most influential bridge-builders was Theodosius G. Dobzhansky (1900–1975) who in a seminal book (1937) demonstrated that the data obtained in gene studies could be reconciled using a novel approach. It combines the naturally occurring diversity of individuals within a species and genetic mutations, and how selection processes shape the genetic makeup of populations that are isolated from other populations, thus leading to the formation of new species. Dobzhansky also linked laboratory experiments on the evolutionary change of fruit flies with field work on these insects in an unprecedented manner, making his book popular among geneticists and naturalists alike.

The architects of this synthetic theory did not include the founders of the disputed partial theories since they were members of the subsequent generation(s). It often appears that the founders of a given initial theory are more unsusceptible to criticism and relativisation of their ideas than members of the next generations who are often less dogmatic and less wedded to specific contents of models developed by others.

<sup>2</sup> Huxley might be pleased to find a reference to this quote here, given that he had a sincere interest in parapsychological research that even led him to participate in at least eight sittings with medium Stella Cranshaw in the facilities of Harry Price in London (Turner, 1973; see also Randall, 2001). He was convinced that studying parapsychological phenomena belongs to the "science of life" and that parapsychology's research results should be known by the educated public. He co-authored a well-informed overview on the state of the art at his time (Wells et al., 1931). Huxley commented favorably on parapsychology even in his seminal book on the modern synthesis (Huxley, 1942, p. 574) and remained curious about its future (Huxley, 1959).

An interesting aspect of the development of the evolutionary synthesis is that partial models that were not supported by sufficient evidence in the eyes of the founders were simply discarded. One example concerns soft inheritance. "The almost universal belief in soft inheritance was a major stumbling block in the path of a neo-Darwinian interpretation", wrote Mayr, who claimed that "it was perhaps the greatest contribution of the young science of genetics to show that soft inheritance does not exist" (Mayr, 1980, pp. 15ff). However, Mayr claimed with regard to another context that "the pendulum always swings too far after the termination of a controversy" (Mayr, 1980, p. 27), causing unfortunate delays in the development of theories. Ironically, this proved to be true here as well. After the existence of soft inheritance has been denied for decades, it is now accepted beyond the shadow of doubt by biologists. This has led, among other factors, to the formation of refined versions of the evolutionary synthesis, such as the "extended evolutionary synthesis" (Jablonka & Lamb, 2020; Laland et al., 2015), the "inclusive evolutionary synthesis" (Danchin et al., 2019), and the "integrated synthesis" (Noble, 2017a). These advancements demonstrate that evolutionary theorizing is an ongoing and lively process that leads to increased theoretical refinement, and in which new factors and partial theories can be integrated if necessitated by new evidence. For the purposes of developing a synthesis of partial theories of psi, it would thus be recommendable to begin with a general and comparably simple theory. The main factor that drove the development of the evolutionary synthesis was neither technical nor methodological but rather the willingness to communicate, to look beyond one's own nose, build bridges, become more open to new ideas, envisage the larger picture, and to look for compatibilities rather than discrepancies between approaches.

In addition, it is noteworthy that despite the many differences that existed among the proponents of different evolutionary (partial) theories, the formulation of the synthetic theory was only possible because all of them rested on a set of common and generally accepted core assumptions. These are:

- Our planet and life on it are very old; much older than it was assumed before the formulation of first theories of evolution.
- Species change and evolve
- Many (perhaps all) species share a common descent that lead to the formation of the branched pattern of evolutionary development, the "tree of life"

Because many currently existing parapsychological theories share common ground but stand largely separate and may even seem incompatible with each other, the situation is somewhat comparable to that in evolutionary biology a century ago. Therefore, I think the time is ripe to move forward much in the same spirit illustrated by Huxley's quote cited above. How could the framework for a Huxleyian "synthetic point of view" look like in parapsychology?

### Part III: Toward a parapsychological synthesis

Just like the evolutionary synthesis, the possible parapsychological synthesis must rely on a number of core assumptions. For reasons outlined in the next sections, it seems reasonable to regard the following assumptions adequate for a start:

- Parapsychology's "Big Four" exist: telepathy, clairvoyance, pre- and retrocognition, psychokinesis.
- Psi phenomena demonstrate that reality behind the scene of what we perceive as our world possesses non-physical features.
- Psi phenomena are rooted in this non-physical aspect of reality and entail different modes of causation than those governing reliably repeatable physical and chemical processes.

## 1) Parapsychology's "Big Four" exist: telepathy, clairvoyance, pre- and retrocognition, psychokinesis

Most parapsychologists are convinced that extra-sensory perception (ESP) exists. Typically, ESP comprises telepathy, clairvoyance, and precognition/retrocognition. Likewise, most parapsychologists agree that it is often very difficult if not impossible to decide which form of ESP is involved in a given ESP experiment or event. Hence, the different forms of ESP can be regarded as representing specific aspects of a continuum of psi. The case for psychokinesis (PK; direct mental influence on the behavior of matter) is more difficult to gauge. Especially the occurrence of macro-PK, a mental effect on objects large enough to be perceived with our senses, is not as widely accepted among parapsychologists as ESP. However, ESP already offers evidence for PK: In all forms of ESP, the psi-mediated cognition goes typically hand in hand with a neuronal correlate of brain activity. When a "message" concerning danger or death in an instance of crisis telepathy (a special case of "active-agent telepathy") reaches a loved one, and affects their thoughts, perhaps even their actions, their brain physiology will be affected as well. This is in essence tantamount to PK exerted by the psi-agent on the loved-one's brain physiology. Similarly, exerting PK effects on living beings such as in "distant mental interactions with living systems" (DMILS) signifies that under certain circumstances, "active agent telepathy" and PK might be related phenomena. In fact, everybody who believes in human free will must accept that mental activity- such as making decisions- will either directly cause changes in the accompanying neuronal correlates in the brain [thus representing a case of "close mental interaction with a living system" in case of (relative) substance dualism], or will be accompanied by "automatically" correlating changes in brain physiology (in case of aspect dualism). The existence of free will in a mind that is not produced exclusively by brain physiology would thus imply some form of PK on the brain's physiology when this mind makes decisions. Why, then, should PK not also work in other situations outside of the brain - if only rarely and under specific circumstances? After all, any PK event can be seen as a material correlate of a mental state or impulse, be it conscious or unconscious. In one systems-theoretical parapsychological model, the Model of Pragmatic Information, PK events are explicitly considered to be a tangible result of "nonlocal entanglement correlations" in a social system and its environment (Lucadou, 2015, p. 226). Furthermore, because of its frequently target- and meaning-orientated character, PK seems to imply aspects of ESP quite naturally at least in some cases (see also Carpenter, 2012). In sum, there are good reasons supporting the notion that also PK is very likely a specific manifestation of a continuum of possible psi effects that share numerous overlaps and communalities. Although telepathy usually refers to mind-mind effects and PK to mind-matter effects, a strict dividing line that would unambiguously separate both phenomena cannot be drawn.<sup>3</sup> Hence, positing the existence of psi in its four major forms of manifestation as a requirement for developing an encompassing theory of psi seems well justified.

3 In the frameworks of idealist or dual-aspect monist philosophy, drawing a distinction between entities that are fundamentally different on an ontological level, such as mind and matter, is neither necessary nor possible, anyway.

# 2) Psi phenomena demonstrate that reality behind the scene of what we perceive as our world possesses non-physical features

As stated already, the manifestation of psi involves some form of life and consciousness, but there is currently no conclusive explanation for consciousness. It is unclear how exactly consciousness is related to the arrangement of brain matter and how it could be produced by physicochemical interactions of inanimate atoms and molecules. There are several explanatory approaches, to be sure, but none can satisfyingly solve the "hard problem of consciousness" (see e.g., Kastrup, 2021a; Kelly, 2022). On the other hand, there are a number of philosophical and scientific arguments, even outside of parapsychology, evidencing that the material world we perceive, including its fundamental framework of spacetime, might represent a consciousness-related construct (for recent sources, see e.g., Hoffman, 2020; Kastrup, 2019, 2021a, b; Lanza & Pavšič, 2021). In this context, it is of significance that psi, which is itself a consciousness-related and perhaps even a consciousness-based phenomenon, is virtually characterized by its peculiar ability to tunnel or to relativize space (via telepathy and clairvoyance), time (via pre- and retrocognition), and even the familiar mode of causation ruling the behavior of inanimate matter (via psychokinesis). It transcends the usual manners of perceiving and communicating in a physicalist world - which is precisely one reason why it is regarded so critically by many mainstream scientists and why many parapsychologists consider it to be a strong empirical evidence for the existence of a foundation of the world that is usually hidden from our biological senses – just as inferred by theoretical inductive reasoning in the section on philosophical prudence.

The ability of psi as a consciousness-related phenomenon to tunnel, relativize, and perhaps even utilize what we perceive as spacetime suggests that spacetime itself possesses compatible consciousness-related or consciousness-like aspects, and therefore possesses non-physical features. When quoting Francis Bacon, Schopenhauer stressed that studying psi phenomena would constitute "practical" or "empirical metaphysics" (Schopenhauer, 1986b, p. 429) because these phenomena would directly disprove physicalist concepts of the world and point to a *mind-related* hidden layer of reality behind the realm of representations (Schopenhauer, 1986c, p. 321). This argument is much in line with Driesch's reasoning stated above according to which representations experienced as consciousness (-related) in our world must have a respective foundation in reality. Hence, the proposed second core assumption for the parapsychological synthesis seems justified: psi phenomena demonstrate that reality behind the scenes of what we perceive as our world possesses non-physical features.

#### 3) Psi phenomena are rooted in this non-physical aspect of reality and entail different modes of causation than those governing reliably repeatable physical and chemical processes.

This core assumption is practically implied in the second core assumption. But because it is of crucial importance to recognize that psi phenomena entail a different mode of causation than that traditionally assumed in life sciences, namely physicalist efficient upward causation, I listed it as a separate item. Psi phenomena, like ESP, manifest by taking the direct route into cognition, they do not entail taking a detour via the processing of physicochemical stimuli in biological sensory organs and the brain of the material body. They cannot be explained by the interaction of physical particles or waves along the linear arrow of time, and they do not follow the typical modes of causation expected when dealing with our familiar world. But that does not mean that there is no causation involved. Psi phenomena entail principles of causation that have been described by previous authors as, for instance, entanglement correlation, synchronicity, wholeness-causality, downward causation, or holistic versions of final causation (Nahm, 2021b).<sup>4</sup> The supposition that efficient (upward) causation is the only existing form of causation merely represents a theory-centered axiom that is born out of a specific tradition of thought. It represents an upscaling of the familiar mode of daily life experiences to nature as a whole, but it has no philosophical and – as especially psi phenomena demonstrate – also no empirical justification. In science, empirical data always must be given priority to theory. If data do not fit into an existing scientific theory but are recorded over and over again, such as psi phenomena, the theory needs to be revised and/or expanded. This entails invoking different modes of causation when necessary, which represents a long-standing philosophical tradition that goes back to Aristotle and his model of material, formal, efficient, and final causes.

#### Comments on the mind-body problem

These three core assumptions imply that a materialist or physicalist concept of the world cannot account for psi phenomena and thus fails to offer a viable pathway to understand and explain the world. Theories of psi and the foundations of reality need to be framed in non-physicalist terms such as idealism, dual-aspect monism, dualism, neutral monism, panpsychism, cosmopsychism, panexperientialism, or panentheism. Depending on how exactly these "-isms" are conceptualized, there can be many overlaps between them (Kelly et al., 2015; Kelly & Marshall, 2021).

The mind-body problem prominently illustrates such an overlap. As highlighted in the section on philosophical prudence, one should always relate an issue to be scrutinized to the appropriate descriptive framework or epistemic level of the world it belongs to because different levels require different explanatory frameworks. If, for example, one examines a mechanical device or a chemical reaction, it is most appropriate to operate in a framework entailing only efficient causation (i.e. the approach that is typically pursued by scientists concerned with the level of inanimate matter in the mesocosm but also in many branches of biology). If, however, one addresses biological fringe phenomena such as persistent consciousness in critical near-death experiences (NDEs) after cardiac arrest (Nahm & Weibel, 2020),<sup>5</sup> or reincarnation cases in which memories and personality traits of a deceased person re-appear in an infant at a different location and a later time (Matlock, 2019; Nahm, 2021c), one is already addressing

<sup>4</sup> Often, effects of entanglement correlation and synchronicity are depicted as being "acausal" in the literature. Even Carl Gustav Jung and Wolfgang Pauli, who developed the concept of synchronicity, prominently used this term. However, I believe that the term "acausal" is misleading in these contexts. By using it, Jung and Pauli stressed that the effects in question cannot be attributed to the classical modes of causation dealt with in natural sciences, especially efficient causation. But of course, the supposed archetypes and psychological tensions in a social system that are thought to underpin and elicit synchronistic occurrences in this model can be regarded as causes as well. In fact, both Jung and Pauli sometimes likened the appearance of meaningful synchronistic occurrences to a holistically operating final causation (Jung, 2010, Meyenn, 1999), what appears to be more appropriate (see also Atmanspacher, 2014; Gieser, 2005). Using the term "acausal" should better be restricted to appropriate contexts in physics, such as radioactive decay.

<sup>5</sup> Some authors have suggested that conscious awareness seemingly experienced during states of severe cerebral hypoxia after a prolonged cardiac arrest, as in critical NDEs, was actually not experienced in real time but only later during the recovery phase of the brain. The NDE would only retroactively and misleadingly have been construed as having been experienced in real time. For reasons outlined elsewhere (Nahm & Weibel, 2020), this supposition is rendered highly improbable by various lines of evidence.

phenomena that belong to the level of mind (i.e. a level of the world in which thinking exclusively in physical terms and reductionist efficient forms of causation is not appropriate any more). Concerning reincarnation cases in particular, it is apparently impossible to avoid a dualist framework: the material body and brain of the deceased disintegrate, decompose, and may even be burnt, but aspects of the deceaseds' minds such as memories continue to exist seemingly unbound from matter. They can even emerge again later somewhere else in a newborn infant. It does not even matter in which way these cases are interpreted, be it terms of psi faculties of the deceased, such as survival (Nahm, 2021c), or in terms of living-agent psi (Sudduth, 2016). In both models, these re-appearing memories cannot have their origin in the physical brain of the newborn infant. Therefore, reincarnation cases must be framed in terms of mind/brain dualism – at least, I can think of no reasonable way of interpreting the different fates of the decomposing brain matter and the continued existence of mental aspects of a deceased person in a strict and logically coherent monist way.<sup>6</sup>

But as argued previously, even matter itself, including bodies and brains, might be interpreted in terms of a non-physicalist concept (e.g., idealism). It is therefore possible to hold a dualist notion regarding the level of life, and a monist notion when considering the ultimate nature of reality including mind and matter (see also Rousseau, 2015, who holds a similar notion, albeit with a focus on different kinds of matter instead of different aspects/representations of mind). Hence, the kind of dualism on the biological level outlined above is not conceived as classical ontological substance dualism in which mind and matter are regarded as fundamentally different, as in Descartes' version of dualism, but it is only a relative substance dualism in which mind and matter are regarded as different and separable forms of representations that are both rooted in a unified and mind-related foundation of existence or reality. In this context, the concept of "relative onticity" is very useful (Atmanspacher, 2018; Atmanspacher & Kronz, 1999). It is related to previous concepts developed by philosophers Willard Van Orman Quine and Hilary Putnam according to which the strict division between, for example, a fundamental ontic level of reality and two derived epistemic aspects of description (mind and matter) is too simplistic. Rather, such attributions are context-dependent: what is ontic in one frame of reference may be epistemic in another, just as bricks can be considered to be ontically real for construction workers, but highly derived epistemic constructs for quantum physicists. Thus, what is considered to be ontic and epistemic depends on the chosen frame of reference, and this general notion is compatible with models of reality that entail qualitatively different levels of organization, functioning, and description.

Seen in such an *operationalistic* way, relative dualism and monism are compatible with each other. One always needs to apply appropriate frameworks or "-isms" to the phenomena and the level of the world one is looking at, and recognize that these levels are superimposed and hierarchically organized. Aspects of phenomena and organizational principles that factually pertain to different levels of the world are not necessarily antipodal or mutually exclusive.<sup>7</sup>

<sup>6</sup> A dualist notion regarding mind and brain also poses enormous theoretical difficulties. It seems likely that their interplay doesn't follow typical modes of biological causation; perhaps it entails entanglement correlations. As numerous authors have highlighted, the functional role of the brain might chiefly consist in structuring, canalizing, or filtering mental percepts, and in controlling movement and behavior.

<sup>7</sup> Advocating what I call *relative substance dualism* and idealist monism at the same time can be considered to be at odds with traditional philosophical concepts. Critics may argue that one cannot be dualist and monist at the same time. However, I maintain that this position is perfectly legitimate because these forms of dualism and monism apply to different levels of existence. It can be exemplified by metaphors such as this: There are obvious and "substantial" differences between water vapor and ice (dualism), but both consist of H2O molecules (monism). I think that certain branches of philosophy are prone to getting stuck in a dead end because they do not stay in touch with new and innovative scientific developments. Even recent academic philosophical discussions about dualism and consciousness are often exceedingly

Reality as a mind-related or mind-based stratum of existence belongs obviously to the higher levels of existence that are associated with mind in the model of different strata or layers of the world. It might comprise modes of functioning that surpass our cognitive capabilities and that of our biologically conditioned rational thinking, as epitomized by models of psi to be discussed in the next section and in which "higher dimensions" with mind-related or mind-like features are postulated. Causal effects that apparently originate on a higher stratum and affect a lower stratum, such as states of mind that affect the body – as in placebo/nocebo effects and other instances of psychophysiological influence – would have to be conceived as a form of downward causation (i.e., in opposite direction to the mode of upward causation usually implied in reductionist physicalist thinking).

#### Toward a parapsychological synthesis

Now that I've outlined the basic requirements and corollaries for a synthetic theory of psi, I will introduce some of the possible theories parapsychologists could integrate into this general framework. As with the development of the evolutionary synthesis, an adequate elaboration of a potential parapsychological synthesis would require going into considerable detail and writing entire volumes. Here, I can only give a very rough sketch of possible basic concepts matching the three core assumptions and indicate where bridges could be built. While doing so, I am chiefly concerned with the nature of psi and its implications for understanding the world but I will not address potentially important but also controversial subtopics such as parsimony, replicability, etc.

Important cornerstones of current parapsychological theorizing include the model of First Sight (Carpenter, 2012, 2015), the Model of Pragmatic Information" (MPI; Lucadou, 2015) and its overarching framework labeled Generalized Quantum Theory" (GQT; Atmanspacher et al., 2002; Walach et al., 2014), and hyperspatial models (Carr, 2008, 2015). The model of First Sight has been elaborated on in considerable detail and may well serve as a psychological fundament for theories of psi. It builds on two basic premises. "The first premise proposes a virtually unlimited unconscious mind. The second says that unconscious cognitive processing stands behind and produces all experience and behavior, and that this processing includes an extrasomatic reference to a wide world apprehended by what we call psi." This implies "that psi is a process that is ordinary, common, and crucially important, in fact, that it is something we use all the time in a way that precedes our every thought and action. It comes first" (Carpenter, 2015, p. 244). Carpenter (2012) pointed to several precursors of his model, and Driesch's ideas share a lot of communalities with this model as well. Driesch suggested that the direct cognition of percepts, such as in clairvoyance, would be an indicator that all reality is fundamentally connected. The

theoretical and disregard crucial practice-related findings that Edward Kelly has termed "rogue phenomena" (Kelly, 2015), including phenomena documented in parapsychology and survival research. But these empirical data need to be taken into account by philosophers if they aim at understanding the nature of human beings, the world, and reality. And *if* data such as reincarnation cases are taken seriously, philosophy might need to be advanced beyond historical tradition by introducing new ideas and concepts such as relative substance dualism. A crucial difference to related concepts such as dual-aspect monism or aspect-dualism is that classical forms of these concepts imply a symmetrical relation between mind and brain on the biological level, a psychophysiological parallelism in which one aspect is mirrored by the other aspect on the epistemic level – just like the curve of a circle is convex when viewed from the outside but concave when viewed from the inside. One cannot change one aspect without immediately and automatically changing the other aspect accordingly, and these aspects are also not separable from each other. They are thought to be "complementary." Logically coherent versions of these concepts do not allow for independent functioning or even the separation of mind and brain, let alone for survival of (parts of) the mind "aspect" after the decomposition of the brain "aspect." Any concept that allows for a certain independence of mind and brain functioning, or survival, goes *inevitably* beyond mere "aspect" dualism, at least on the biological level.

personal mind would be able to directly access a transpersonal mind-related domain. In fact, this direct connection from mind to mind would be easier to comprehend in principle than perceptions mediated via the more complicated detour of passing the senses of a physical body, and it might constitute the "normal" way of cognition. The physical body could merely serve as a means to limit and channel percepts and the resulting experiences, but *every* percept and cognitive process, even memory, would nevertheless imply the unconscious utilization of psi (Driesch, 1939). Similarly, PK might play a continuous unconscious role in everyday life in that it would be involved not only in morphogenetic processes, especially those developing in response to (auto-) suggestion, but also in taking action, e.g., by affecting the nervous system to move an arm (Driesch, 1933). This is also implied in the model of First Sight in which "the most basic function of PK is affecting the nervous system processes that carry out actions" (Carpenter, 2012, p. 93). It can, however, also manifest beyond the boundaries of an organism when strong unconscious intentions to achieve a goal are blocked. It takes the form of "unconsciously expressive behavior" (ibid., p. 95).

Similarly, the MPI regards PK "as a kind of 'externalized psychosomatic' reaction, expressing a hidden problem that cannot be recognized by the persons concerned" (Lucadou, 2015, p. 230). There are several other congruencies between the model of First Sight and the MPI, but these models also address different aspects of psi and share substantial differences. A unique feature of the MPI (and the GQT) setting it apart from other theories is that psi is not regarded as "a classical signal originating from the mind; rather, it is merely a (nonlocal) entanglement correlation" (Lucadou, 2015, p. 236). This concept draws much from the theory of synchronicity developed by Carl Gustav Jung and Wolfgang Pauli. They regarded psi phenomena as "meaningful coincidences" elicited by correspondences of meaning, and maintained that they are not produced by processes guided by usual forms of causation dealt with in the natural sciences (Jung, 2010). I believe that this tenet of the MPI constitutes a major contribution to parapsychological theorizing and it has led to numerous stimulating treatises (e.g., Lucadou & Zahradnik, 2004; Maier et al., 2022; Walach et al., 2016, 2021). Given that both Jung and Pauli sometimes likened the appearance of synchronistic events to a holistically operating final causation, their theories are well in line with current trends in biology (Gare, 2019; Levin, 2020; Noble, 2017b) and philosophical concepts such as idealism (Farris & Göcke, 2022), panpsychism (Seager, 2020), and dual-aspect monism (Atmanspacher & Rickles, 2022) in which modes of causation in addition to efficient upward causation are suggested.

Approaches dealing with psi phenomena in the context of hyperspatial models of the world share an implicit holistic foundation. Roughly speaking, it is assumed that occurrences in which time is transcended (retrocognition, precognition) and in which space is transcended (telepathy, clairvoyance, PK) in seemingly inexplicable ways are rooted in what can be described as a hyperdimensional structure of reality. This might especially apply to ostensible apport phenomena (e.g., Ludwiger & Nahm, 2016) and for the often-reported feature of NDEs where the experiencers described their surroundings as if from a hyperspatial perspective. "Just as an ordinary person can normally see everything laid out on a two-dimensional surface, so these NDErs report being able to see things in the three-dimensional world from all angels simultaneously, see through things, and so on" (Rousseau, 2015, p. 297). More recent versions of psi-friendly hyperspatial models assign consciousness a fundamental role (Carr, 2008, 2015; Ludwiger, 2021; Neppe & Close, 2012), thereby highlighting that their core features can be bridged to other models such as that of First Sight or the MPI/GQT. Several other authors on parapsychological matters voiced their opinion that consciousness plays a fundamental role in the occurrence of psi phenomena and also in nature, although they have not elaborated sophisticated theories (e.g., Kelly et al., 2015; Kelly & Marshall, 2021; Kripal, 2022; Radin, 2020; Schwartz, 2021; Tressoldi & Facco, 2022; Vernon, 2021). Furthermore, hyperspatial models can also accommodate for mind-body dualism (Carr, 2015; Rousseau, 2015; Nahm, 2007, 2019b).

Further models or partial theories that have been merely sketched, or that address only specific aspects of psi, are introduced in the volumes by May & Marwaha (2015) and Kelly et al. (2015). Another general model that is supposed to account for psi phenomena builds on the concept of morphic fields and was introduced by Rupert Sheldrake. He stated that his hypothesis shares similarities with other theories of psi, but he is critical of hyperdimensional models (Sheldrake, 2013; Sheldrake in Ruickbie, 2021). Nevertheless, proponents of hyperdimensional theories of psi maintain that the general concept of morphic fields is quite compatible with their ideas (Carr in Ruickbie, 2021; Ludwiger, 2012). It also shows similarities with the concept of entanglement correlation. A model that has been developed in considerable detail but builds exclusively on precognition is the multiphasic model of informational psi (MMIΨ), formerly also called the multiphasic model of precognition (Marwaha & May, 2019a). But because it constitutes a physicalist model in which ESP is reduced to only precognition and (macro-) PK is considered impossible, its basic structure is at odds with most other contemporary parapsychological theories and also with the three core assumptions proposed for a synthetic theory (see also the critical commentaries offered by myself and other authors in Issues 1+2 of Volume 19 of the Journal of Anomalistics, and Marwaha and May's (2019b) response to these critiques). But even this model comprises very interesting elements that are well worthy of further investigation, elaboration and perhaps inclusion in the parapsychological synthesis, such as the proposition that the amount of entropy generated in a given situation has an effect on the success of psi functioning.

This very scant outline of where bridges could be built between different approaches to explain psi should not mask the fact that there are also incompatibilities. For instance, a crucial feature of the MPI/GQT is that a psi-mediated signal transfer or transfer of information is deemed principally impossible, which results in several corollaries and predictions (Lucadou, 1995, 2015). Regardless of the precise underpinnings and implications of the MPI/QGT and their conflict with other theories of psi, I think that any theory of psi must imply a holistic mode of downward causation that is different from the concept of upward and merely efficient causation, and the MPI/GQT offers a promising pathway to follow. Because it is beyond the scope of this article to elaborate exactly how the different models of psi could be combined, or where they are fundamentally incompatible, I can merely recommend that those with the appropriate expert knowledge engage in respective discussions and an evaluative comparison of existing theories. I am aware that similar attempts have occasionally been made in the past, but proved to be not very fruitful. If the potential (future) actors would focus on the communalities and compatibilities of different theories and widely acceptable core assumptions rather than on their differences, I am convinced that a considerable advancement would be possible.<sup>8</sup> It seems to me that a reasonable

<sup>8</sup> Since the study of UFOs or Unidentified Anomalous Phenomena (UAP) has recently gained considerable interest and respectability among scientists, media outlets, and the public, it appears worthwhile for parapsychologists to follow future developments in this field. It has long been known that the phenomenology of UAP and the intelligence controlling their behavior comprises many seemingly parapsychological features, thereby pointing to a common modus operandi that relies on specific features of reality (e.g., Cassirer, 1988; Ouellet, 2015; Vallée, 1975). It might be possible to build bridges between UAP investigations and parapsychology, in regard to theory building.

starting point would consist of finding a minimum consensus regarding the following questions in the context of parapsychology:

- How can different forms of causality be defined in the context of parapsychology, and which forms of causality effectuate the occurrence of psi?
- What is information, and which ways exist to communicate information?
- How far can findings of quantum physics be applied to psi functioning? (e.g., is it appropriate to assume that signals or information can *never* be transferred in the context of psi phenomena simply because they cannot be transferred in the context of quantum entanglement?)

#### Conclusions

In this closing section, I'd like to summarize and highlight a few points. First, parapsychologists and their critics should realize that trying to comply with typical mainstream approaches will not work with theories of psi. The demand that parapsychologists should develop a theory of psi that parallels robust theories of mainstream science is mistaken because of the implicit nature of the phenomena they study. One does not need to fully "explain" psi to accept its existence. After all, we also work with gravity and quantum effects although we cannot fully "explain" them and after a long struggle, mainstream medicine has finally taken phenomena of psychophysiological influence such as placebo effects as real, but again, without being able to offer a satisfying reductionist explanation for them. Likewise, the fact that we have no physicalist explanation for consciousness does not mean that we should deny its existence.

Second, the difficulties in formulating robust theories of psi are no reason for regret. Rather, the exceptional significance of parapsychological research lies in providing direct empirical evidence for a non-physical feature of the foundation of existence. Jacques Vallée (2018) succinctly stated in an J.B. Rhine Address to the *Parapsychological Association* that psi research should lead, not follow – and I would explicitly add here: also with regard to theory building. Endorsing a real-life approach working with specifically gifted individuals and investigating spontaneous phenomena might prove to be more fruitful in this respect than conducting evidence-orientated laboratory experiments entailing mass screenings among the general population.

Third, given the peculiar phenomenology of their research subject, parapsychologists might also take the lead among scientific disciplines by 1) addressing and highlighting the inherent limitations of our biologically conditioned rational thinking that hamper a full understanding of consciousness and mind-related aspects of the world, and by 2) cautioning fellow scientists in mainstream settings to adopt a more philosophically prudent and responsible stance concerning interpretations of the world derived from their fields of study.

Fourth, following the historical example of the development of the evolutionary synthesis in biology, parapsychology would benefit from the development of an explicitly synthetic theory instead of presenting largely unconnected partial theories. I regard the proposition that psi entails different modes of causation than usually assumed in mainstream sciences as one of the most important tenets of this potential synthesis. Although I can well imagine that developing such a theory will not be an easy task that can be quickly achieved, I consider it feasible. Julian Huxley and other biologists showed that a discordant swath of theories can be strengthened by joining forces, and there is no reason why this should not also be possible in parapsychology. Hence, quoting Huxley (1942, p. 8) again: If this article "contributes to such a synthetic point of view, I shall be well content."

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## **Abstracts in Other Languages**

#### Hacia una "Síntesis Parapsicológica": Propuestas para integrar teorías del psi

Resumen: A lo largo de la historia de la parapsicología, regularmente se han presentado quejas sobre la falta de teorías que expliquen los fenómenos psi. De hecho, actualmente no existe una teoría que pueda explicar el psi de una manera comparable a las teorías sólidas en las ciencias convencionales. Además, las teorías parapsicológicas existentes se mantienen en gran medida separadas y representando enfoques desconectados. En esta contribución, sugiero que la situación, respecto a las teorías del psi, podría mejorarse desarrollando una teoría sintética que plantee suposiciones fundamentales específicas en las que se puedan integrar las teorías y modelos existentes del origen del psi. Formular una teoría que se enfoque en las similitudes y compatibilidades de los modelos existentes en lugar de en sus diferencias aumentaría la coherencia en la teorización parapsicológica y, por lo tanto, beneficiaría a la parapsicología. Para mostrar que tal enfoque ya ha funcionado en el pasado, también presento la "síntesis evolutiva" desarrollada por biólogos hace aproximadamente 90 años. Además, argumento que la exigencia de que los parapsicólogos deben desarrollar una teoría del psi que se integre y cumpla con las ciencias convencionales actuales es fundamentalmente inapropiada debido a la naturaleza misma del psi. Esto no es motivo de pesar, ya que la importancia excepcional de la investigación parapsicológica radica en proporcionar evidencia empírica directa de una base no física de la existencia. En este sentido, desempeña un papel fundamental en la configuración del modelo científico más preciso para comprender nuestro mundo.

Palabras clave: Teorías del psi, síntesis parapsicológica, síntesis evolutiva, causalidad, Realidad

### Vers une « synthèse parapsychologique » : propositions pour une intégration des théories du psi

*Résumé*: À travers l'histoire de la parapsychologie, de nombreuses plaintes se sont faites régulièrement entendre quant au manque de théories des phénomènes psi. En effet, il n'existe aucune une théorie pouvant expliquer le psi d'une manière comparable aux théories robustes disponibles dans les sciences mainstream. En outre, les théories parapsychologiques existantes restent largement séparées les unes des autres et représentent des approches déconnectées. Dans cette contribution, je suggère que la situation des théories du psi pourrait être améliorée par le développement d'une théorie synthétique qui pose un certain nombre d'hypothèses essentielles et spécifiques permettant d'intégrer les théories et les modèles des origines du psi. La formulation d'une telle théorie qui se focaliserait sur les aspects communs et les compatibilités des modèles existants plutôt que sur leurs différences pourrait augementer la cohérence de la théorisation parapsychologique et, par conséquent, être bénéfique à la parapsychologie. Afin de montrer qu'une telle approche a déjà fonctionné par le passé, j'introduis également la « synthèse évolutionniste » qui a été développée par les biologistes voici environ 90 ans. Je discute également des exigences faites aux parapsychologues de développer une théorie du psi qui se conforme aux sciences mainstream est par principe inappropriée du fait de la nature même du psi. Il n'y a pas de raisons de le regretter car la significativité exceptionnelle des recherches parapsychologiques se situe dans le fait de fournir des preuves empiriques directes de l'existence de fondations non-physiques. À ce titre, il a un rôle majeur à jouer dans le façonnement d'un modèle basé sur la science qui nous apporte une compréhension plus précise du monde.

Mots-clefs: Théories du psi, synthèse parapsychologique, synthèse évolutionniste, causalité, réalité

#### Annäherung an eine "parapsychologische Synthese": Vorschläge zur Integration von Psi-Theorien

Zusammenfassung: Im Laufe der Geschichte der Parapsychologie wurde immer wieder beklagt, dass es keine Theorie gäbe, die Psi-Phänomene erklären könne. In der Tat gibt es derzeit keine Theorie, die Psi in einer Weise erklären kann, die mit robusten Theorien der etablierten Wissenschaften vergleichbar ist. Außerdem stehen die existierenden parapsychologischen Theorien weitgehend voneinander geschieden und stellen unverbundene Ansätze dar. In diesem Beitrag schlage ich vor, dass die Situation hinsichtlich der Psi-Theorien durch die Entwicklung einer synthetischen Theorie verbessert werden könnte, die spezifische Kernannahmen vertritt, auf deren Grundlage die bestehenden Theorien und Modelle zur Entstehung von Psi integriert werden könnten. Die Formulierung einer solchen Theorie, die sich auf die Gemeinsamkeiten und Kompatibilitäten der bestehenden Modelle konzentriert und nicht auf deren Unterschiede, würde die Kohärenz der parapsychologischen Theoriebildung erhöhen und somit der Parapsychologie zugute kommen. Um zu zeigen, dass ein solcher Ansatz bereits in der Vergangenheit funktioniert hat, stelle ich die "evolutionäre Synthese" vor, die von Biologen vor etwa 90 Jahren entwickelt wurde. Darüber hinaus argumentiere ich, dass die Forderung, Parapsychologen müssten eine Theorie von Psi entwickeln, die im Einklang mit heutigen Mainstream-Wissenschaften steht, aufgrund der Natur von Psi grundsätzlich unangebracht ist. Dies ist kein Grund zum Bedauern, denn die außergewöhnliche Bedeutung der parapsychologischen Forschung liegt darin, direkte empirische Beweise für eine nicht-physikalische Basis der Existenz zu liefern. In dieser Hinsicht spielt sie eine führende Rolle bei der Entwicklung eines möglichst genauen wissenschaftlich fundierten Modells zum Verständnis unserer Welt.

Schlüsselbegriffe: Theorien von Psi, parapsychologische Synthese, evolutionäre Synthese, Kausalität, Realität