Survival of Bodily Death
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Inadequacies of Contemporary Mind/Brain Theories

Ed Kelly

Ed Kelly drew upon his varied experience in cognitive psychology, experimental parapsychology, and neurophysiology to sketch for conference participants a picture of the scientific background framing their discussions of the survival question. For a larger view of human personality to emerge, he said, two things must happen: First, it must be shown that currently prevailing physicalist/materialist theories are inadequate in principle; and second, an alternative theory must be constructed that remedies these defects. His presentation focused primarily on the first of these tasks.

His starting point was the end of the 19th century, when F.W.H. Myers, William James, and various colleagues were struggling to develop a comprehensive theory of human personality - one that seriously attempted to take into account all of the relevant facts at their disposal, including those being unearthed by psychical research. Unfortunately, these efforts were soon swept aside by the rise of a much narrower conception of scientific psychology, built on the German experimental model, that hoped to emulate the success of "hard" science by operating strictly in terms of its primary assumptions, such as mechanism, materialism, and objectivism.

The history of mainstream psychology in the 20th century, and its co-evolution with developments in philosophy of mind, has been one of progressive refinement, and ultimately rejection, of these narrow views. Behaviorism in its methodological and logical variants, type and token theories of mind-brain identity etc. flourished for varying lengths of time but then fell by the wayside as their defects were progressively identified and articulated.

Starting around mid-century, however, a new image of the mind emerged, one which successfully joined the philosophical doctrine of functionalism with the logical theory of Turing machines and the applications technology provided by the digital computer. According to this view, the mind was conceptualized as standing in the same relation to its brain as a computer program stands in relation to the hardware on which it runs. This new view – the computational theory of the mind – had tremendous intellectual appeal and depth, and it liberated cognitive psychology from the most oppressive strictures of methodological behaviorism. As a result it rapidly gained widespread acceptance, and has dominated the field of mind/brain studies ever since.

However, Kelly argued, it has now become apparent that this theory too is fatally flawed. His own dissertation research, for example, which sought to enable a computer to recognize the major senses of common English words, convinced him that computers were utterly unable in practice, and possibly unable in principle, to "understand" anything. Similar themes were developed more fully by Hubert Dreyfus in his classic 1972 book What Computers Can't Do. Moreover, Kelly pointed out, certain experimentally established phenomena such as psychokinesis and precognition provide examples of human behavioral capacities which appear in principle beyond the reach of any purely computational model of the mind.

The most systematic and devastating attack on the computational theory of the mind, however, is the one that has been progressively developed over the past 20 years by U.C. Berkeley philosopher John Searle. It has two main threads: First is his famous "Chinese room" argument, which shows that semantics is something over and above syntax, and not accounted for by computational processes alone. The essence of his argument is that we can easily imagine a person who knows no Chinese but who appropriately answers questions in Chinese by manipulating symbols according to the rules of a computer program, without ever understanding a single part of the resulting "conversation". Searle's further and deeper charge is that the most basic underlying presumption of cognitivism, that the brain literally is a computer is itself fundamentally incoherent, because "computation" is not something we discover in nature, like mass or gravity, but rather something which exists only in relation to human purposes.

The details of Searle's negative arguments, and the debates they have provoked, are numerous and complex, but Kelly himself believes that on this front Searle is basically correct, and that he has effectively destroyed the computational theory of the mind, despite howls of outrage from proponents such as Daniel Dennett and the Churchlands. The recent emergence of connectionist or neural-network models of computation changes nothing, because these are subject to the same fundamental limitations as any other computing architecture. None of this, of course, prevents working scientists from going about the business of using computers to model various aspects of perception, cognition, etc, but for a fundamental theory of mind and consciousness we must look elsewhere.

Searle's positive thesis, however, which he calls "biological naturalism", simply assumes that mind and consciousness emerge as higher-order properties of the brain, and will ultimately be explained in terms of the unimaginably complex details of its unique physical and biological organization. Related views have been advanced by philosopher Colin McGinn (who agrees with Searle that the brain causally produces mind and consciousness, but argues that we are constitutionally prevented from understanding how it works), and by working neuroscientists such as Francis Crick, Gerald Edelman, Walter Freeman, and many others (who can be viewed as essentially carrying forward Searle's proposed research program).

But will this program succeed? Kelly himself thinks not, and regards this move deeper into the biology simply as the latest form of promissory materialism. To explain why, he began by quoting a trenchant summary of the current status of the mind-body problem by philosopher Thomas Nagel (from 1993 Experimental and theoretical studies of consciousness. Wiley, Chichester (Ciba Foundation Symposium 174) p. 1.:

The mind-body problem exists because we naturally want to include the mental life of conscious organisms in a comprehensive scientific understanding of the world. On the one hand it seems obvious that everything that happens in the mind depends on, or is, something that happens in the brain. On the other hand the defining features of mental states and events, features like their intentionality, their subjectivity and their conscious experiential quality, seem not to be comprehensible simply in terms of the physical operation of the organism. This is not just because we have not yet accumulated enough empirical information: the problem is theoretical. We cannot at present imagine an explanation of colour perception, for example, which would do for that phenomenon what chemistry has done for combustion – an explanation which would tell us in physical terms, and without residue, what the experience of colour perception is. Philosophical analyses of the distinguishing features of the mental that are designed to get us over this hurdle generally involve implausible forms of reductionism, behaviouristic in inspiration. The question is whether there is another way of bringing mental phenomena into a unified conception of objective reality, without relying on a narrow standard of objectivity which excludes everything that makes them interesting.

A possible doorway to such a radical rethinking of the problem, Kelly suggested, was clearly identified by William James in his 1898 Ingersoll lecture (Human Immortality: Two Supposed Objections to the Doctrine), in which he pointed out that co-variation does not imply causation, and that even a convincing demonstration of perfect 1:1 correspondence between physical events in the brain and mental events (something far beyond what we actually have, even now) would not prove that the latter are produced by the former. The function of the brain, James observed, might be transmissive rather than productive. This "filter" theory would be compatible with all the facts adduced from the conventional point of view, and could potentially explain certain additional facts that otherwise resist explanation. Among the latter, James himself specifically included paranormal phenomena, including evidence of postmortem survival, and phenomena of religious life including conversion and mystical experience. (For more about the filter theory and its long history, see the presentation by Michael Grosso).

The time is ripe, Kelly suggested, to revisit and expand James' inventory of phenomena that appear definitely or potentially incompatible with prevailing physicalist accounts of personality, mind, and consciousness, taking advantage of the additional scientific information that has accumulated over the intervening century. Briefly, such a list would include at least the following:

1. Psi phenomena. Kelly asserted that in his opinion the reality of psi has been experimentally established beyond any reasonable doubt, and any viable theory of human personality will have to accommodate this fact.

2. Evidence of post-mortem survival. The amount and quality of such evidence is impressive, although it is little known outside the psi research community. In suggesting that some aspects of mind including procedural and declarative memories may persist independently of the physical organism, it presents the most stark and direct challenge conceivable to prevailing views. Serious and able students of this evidence remain divided about its proper interpretation, but the subject clearly merits intense further investigation.

3. Mystical experience. In Kelly's opinion, previous workers such as William James, Aldous Huxley, and Walter Stace have demonstrated convincingly that there is a fundamental commonality to these powerful experiences which unites them as a class throughout recorded history and across diverse religious cultures. What has not been so clearly recognized is that their strong truth claims receive empirical support from the verifiable effects such experiences produce in the lives of those who have them. These effects may include, for example, incursions of psi abilities, increases in reading speed and other readily-measured cognitive skills, etc. Another relevant feature new since James' time is that we now have a lot of information about transformative practices, and a large cadre of active practitioners, which should make the phenomena more accessible to study.

4. Near-Death Experiences. At least some such experiences appear to occur under physiological conditions which most neuroscientists would expect to be incapable of supporting any kind of organized mental activity, let alone the complex and powerful experiences that sometimes occur. A recent example is a case reported by Michael Sabom, involving an NDE that occurred during a drastic medical procedure for repair of a cerebral aneurysm (see Bruce Greyson's presentation). The increasing use of multidimensional physiological monitoring in major surgical procedures can be expected to make additional cases of this important type available for detailed study.

5. Pschyedelic experiences. Huxley's interpretation of such experiences as resulting from a suspension of the normal "filtering" action imposed by the brain should be revisited in light of more detailed information about the physiological modes of action of specific agents. Ketamine, for example, is a dissociative anesthetic, and a powerful entheogen at subanesthetic doses. It selectively disrupts the NMDA receptor system of the upper cortical layers, which plays a major role in tangential interactions among cortical areas, and yet such interactions are widely presumed to provide the normal physiological basis for organized perceptual and cognitive experience.

6. Multiple personality disorder and trance mediumship. Many unusual phenomena have been reported in such cases which appear to strain conventional theories of overall brain function. For example, in co-consciousness a personality B may be simultaneously aware of its own experience and that of personality A, but not vice-versa. Similarly, when an MPD subject stands in front of a mirror, different "alter" personalities may simultaneously have radically divergent visual experiences, e.g. seeing a young blond female vs. an old dark-haired male. In the case of "Old Stump", described by James, a background personality was apparently unaffected by an illness that produced concurrent delirium in the surface personality. The trance medium Mrs. Piper, discovered by William James, occasionally carried on interactions with three sitters at once, speaking to one and writing messages to the other two using both hands simultaneously. All such cases, conventionally viewed, seem to involve simultaneous engagement of major brain systems in different and potentially incompatible ways.

7. Calculating prodigies, especially "idiot savants". From a neurocomputational perspective, the only way to get greater logical and arithmetic precision out of individually unreliable elements (the neurons) is to use more of them, and the few existing studies of these fascinating phenomena suggest that savants must either be using virtually every neuron they have, or doing their calculations in some radically different way. Functional neuroimaging studies might quickly resolve this.

8. Intentionality, meaning, and the felt unity of conscious experience. The "aboutness" of our mental life, the fact that our thoughts, images, feelings, memories, … are experienced as being directed by ourselves, operating as unitary agents, toward external or internal states of affairs, remains a fundamental mystery despite recent discussions of the "binding problem" etc. These properties are fully present even in the simplest acts of perception, as recognized already by William McDougall in his 1911 book Body and Mind. Recent work on cross-modal interactions in perception has belied earlier characterizations of perception as a bottom-up calculation from the patterns of activity appearing at the receptors, and emphasized the role of top-down controls. But where is the "top", precisely? Philosopher Roland Puccetti has recently updated arguments originally advanced by James' contemporary F. Brentano to the effect that this property of intentionality lies at the heart of the mind, and that it cannot conceivably arise in ANY physical system as presently understood.

Kelly concluded his presentation by emphasizing that these preliminary remarks are intended only to be suggestive, and that adequate development of every topic on this list could require a dissertation-sized effort of its own. Furthermore, he pointed out, it is much easier to identify problems in current views than to formulate an alternative theory capable of solving them. He hopes the group will take on that larger task, perhaps by picking up where F.W.H.Myers and William James left off.

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