

Mind and Morality: Where Do They Meet?

By ARTHUR ZAJONC

Where do mind and morality meet? My quick reply is, they meet in suffering. Every person on the planet knows the difference between pleasure and pain, joy and suffering, from direct experience. Causing pain and suffering in another is bad; aiding or caring for another mitigates suffering and is good. It seems simple, but my assertions rest on the two notions of *experience* and *relationship*. Ethics simply would not exist in the absence of real relationships that either reduce or increase real suffering in others. Therefore, we need to understand both the nature of experience and our connections to others.

Although nothing is so immediate as our own direct experience, few things have plagued scientists and philosophers as much as the nature of experience. For example, while I may be certain about my personal world of experience, what gives me the right to infer that other minds exist? Even if they exist, do they have the same character or range of thoughts, feelings, and experiences as my own? If other minds are unlike mine, exactly how do they differ, and what are the ethical implications of such differences?

To give a feeling for how important these questions are, allow me to begin our considerations by drawing from the annals of science circa 1637. Much of the error that has crept into our consideration of these issues is rooted in an unresolved residue of an-

tiquated thinking from the seventeenth century that still pervades the twenty-first century treatment of the mind.

ETHICS AND OTHER MINDS

The origins of modern science have been traced to the thought of several seventeenth century figures, prominent among them being René Descartes (1596–1650), and particularly to his *Discourse on the Method for Rightly Directing One's Reason and for Searching for Truth in the Sciences*. Descartes famously distinguished between two types of substance or aspects of reality, one material and the other mental. He called them *res extensa* (extended things) and *res cogitans* (mental things). According to Descartes, only human beings possessed *res cogitans*, while animals, plants, and the physical world generally were composed of only extended material substance. Animals did not have souls or minds, and so logically, they were machines. The movements of his pet dog were, according to Descartes, nothing more than the dance of complex, intricate material mechanisms. Toss a ball in the air and the movements that propel the dog across the grass after it—its leaping, running, panting, and barking, as well as the dog's response to his master's commands—are *res extensa* in action. No mind, only behavior.

The logical inference drawn by Descartes was that while his pet might howl if he stepped on his paw, this sound was produced entirely by a material mechanism no different from a teapot whistling or a clock chiming. From first principles, Descartes reasoned, animals could not experience pain since, lacking a mind, they were mere machines. This proved a reassuring inference because seventeenth century anatomists routinely practiced vivisection on unanesthetized dogs whose whimpers and

howls were behaviors but, on this view, need not be interpreted as expressions of genuine pain. Ethically speaking, dissecting a live animal was no different than disassembling a car engine: no suffering, so no moral issue. In this instance, the question of “other minds” was answered clearly; only humans have minds (understood as the locus of experience and thought), and therefore, ethics pertains to human relationships alone.

ETHICS AND DIFFERENCE

Some version of this argument stands behind many of the moral horrors of the last several centuries. Even presuming that others do have minds, the moral rights of people and animals have often depended on the kind of mind we ascribed to them. Race science, for instance, has been used to justify the mistreatment of those different from us. From 1933 to 1945, Nazi scientists and doctors at the preeminent German research institutes of the Kaiser Wilhelm Society (forerunner of the Max Planck Society)—especially investigators at the Kaiser Wilhelm Institute for Anthropology, Genetics and Eugenics—researched diligently before determining, for example, that Roma or gypsies were indeed sub-human. The implications were ghastly. Like all kinds of vermin, they should be eradicated or could be used, like Descartes’ dogs, for experimentation, along with Jews and other lesser beings with lesser minds.

Whether cries of pain issued from Jewish children or dissected dogs, the scientific and philosophical arguments were taken to be conclusive. In this way, contrary to the experience of any feeling person, the evident suffering of people and animals was deemed either illusory or at least justified by science and eugenics. The kind of mind we see in the person across from us powerfully affects the moral stance we take toward him or her.

The U.S. record on this is not good either. Ethical abuses by U.S. scientists led to regulations on human subject experimentation only in the 1960s and 1970s. Institutional Review Boards (IRBs) are necessary because history has repeatedly demonstrated that scientists cannot be trusted to act ethically in all instances, especially when fame or grant money is at stake.

What does it take to be a person? Where does suffering fit into our understanding of reality? We are at greatest peril if our ontology is impoverished

or wrong. We may too quickly judge the nature and humanity of others by a shallow and limited set of criteria that do not allow for multiple dimensions of the human being. In this way we distort not only our

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understanding of the precious beings before us but also may act inappropriately and unethically toward them as a consequence. Perhaps nowhere is this more dramatically demonstrated than in the advocacy of infanticide of babies born with mental handicaps. In such cases we witness the legacy of seventeenth century Cartesian logic. Abstract philosophical arguments and cost benefit analysis take the place of the lived human experience of caring for and living with handicapped individuals.

We are morally outraged by practices such as vivisection and human experimentation, by the mistreatment of those who are different from us, of those who are handicapped, and rightly so. But why? Every moral fiber of our being protests against the ethical implications of Descartes’ logic. But what’s wrong with it? If the creature before us is merely mechanism without mind or possessing only a lesser mind, if we ourselves lack a mind, does this not entail a very different moral responsibility toward life? Without true suffering and joy, what becomes of altruism and morality?

WHAT IS A PERSON?

The philosophy of persons espoused by the utilitarian ethicist Peter Singer is an instance where a truncated worldview leads to a deeply troubling ethics. Singer distinguishes between human beings (the species) and persons. In particular Singer argues that we should only grant a full right to life to “persons” and lesser rights to those human beings who, because of mental or physical deficits, are not—according to him—persons. “If we want to put this in the language of rights, then it is reasonable to say that only a person has a right to life.”¹ Ending the lives of diminished human beings against their will, writes Singer, is not an act of the same order as ending the life of a person.

Among others, Singer treats the case of the baby

John Pearson, who was born to English parents with no other problems than Down's syndrome. The parents did not want the child, and the attending physician instructed the nursing staff to allow the child to die by starvation. In his book with Helga Kuhse, *Should Baby Live?* Singer and Kuhse state, "We think that some infants with severe disabilities [such as Down's syndrome, spina bifida and hemophilia] should be killed."² This determination is the conclusion of a logical argument, not unlike that of Descartes, based on what constitutes persons, on the maximization of the "quality of

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life,” and on whether “prospects” for the “abnormal” infant are sufficiently good. If not, then killing them is morally acceptable, even advantageous, to allow for a net increase in the general quality

of life in society as a whole. There are many reasons to object to the eugenics such an analysis entails, but for our purposes it demonstrates the truly appalling power of reason when disconnected from direct experiential modes of understanding that involve the whole person.

For every such example one can name counter-examples. As a young graduate student in physics I found a summer job in a private school for severely handicapped children in South Chicago, then the poorest area of the city. Aptly named the Esperanza School (School of Hope), it was headed by the physician and educator Traute Lafrenz Page. Prior to her emigration from Germany to the United States in 1947, Traute had narrowly escaped execution as a courageous member of the White Rose, the anti Nazi student group in Munich that worked to awaken docile German citizens to Hitler's intentions. From 1977–1994, Dr. Page led the Esperanza School specifically for the benefit of those who, in the judgment of Singer and Kuhse, were not persons.

I remember my first day of work at the Esperanza School very well. From her small office Dr. Page took me downstairs to introduce me to the class where I would be assisting. As we stepped into the room a dark haired girl—perhaps twelve or thirteen years old—turned to me and stretched out her arms in greeting. I noticed how horribly disfigured her face was, how inchoate her speech, how hobbled her gait as she

walked towards me. I had never met or even seen a more physically damaged or mentally handicapped child in my short life. After gently hugging her, I looked around to see that the entire class was comprised of children similarly handicapped. These were my charges for the summer. My work with them and Traute Page taught me much about what it meant to be a person. What I learned bore little resemblance to the learned arguments of Singer and Kuhse.

Many years later a colleague and I would take Amherst College students to Camphill Village in Copake, New York, a residential community for adults who were much like the children I had cared for in South Chicago. Camphill Village communities around the world have, for sixty years, integrated those with Down's syndrome or other mental deficits into families and meaningful work. The Amherst students who went on these visits were enrolled in a special upper level class. We would share a day with the “villagers,” as the handicapped residents are called. The experience was transformative. What began among our students as nervousness and even fear at the prospect of meeting handicapped people became a heartwarming and uplifting experience. On the bus ride back my students, America's best and brightest, would ask: why can't Amherst College be more like Camphill? Which was to say, why can't we accept each other as we are and treat each person with greater respect and care regardless of his or her unique challenges?

DOES ANYONE HAVE A MIND?

We have seen how important our view of others can be for ethics, and in particular how important our view of their minds is to how we treat them. Ironically, as the neurosciences have progressed, mind and brain have increasingly become conflated. The majority of practicing scientists subscribe to some kind of mind-brain reduction. Mind is brain. If one takes this materialistic view fully seriously, then there is no place for subjective experience at all! Even my own experience becomes an inexplicable epiphenomenon.

Today's debate concerning ethics—at least insofar as it includes brain science—is thereby constrained by the so called “explanatory gap.” While the neural correlates of pleasure and pain are reasonably well understood, how one transitions from synapses, action potentials, and ion channels of the brain to the subjective experiences, such as pain, remains a mystery. Indeed, the philosopher

David Chalmers has termed it the “hard problem.” Neuroscience is the “easy” part, but the qualitative, lived experience, which is all we know directly, is the “hard” part. The explanatory gap divides the world in two: direct experience on the one side, and an inferred “real” world that is beyond experience on the other. If reality is not and cannot be experienced, but only inferred, then my real nature as a human being is to be understood entirely as a material machine (*res extensa*). I am no different from Descartes’ dog. My actions and speech are behaviors, partly given by genetics and partly programmed by environmental factors. I do not have a mind in any meaningful sense.

Lacking an experiencing subjective mind, the business of ethics becomes an abstract endeavor stripped of genuine pleasure and pain. Social caring would be reduced entirely to behaviors well suited to survival and understood entirely in terms of Darwinian evolution, neuroscience, and biochemistry.

It seems to me that contemporary science often shows a profound confusion or ambivalence before the question of mind and morality. On the one hand most materialistically oriented scientists would dismiss Descartes’ dualism as outmoded and assert that

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the human mind is also purely material, that we are indeed amazing machines. Descartes did not go far enough. There

are no minds anywhere and subjective lived human experience is epiphenomenal only. If my experience is dismissed as unreal, what is the foundation of morality? Is an ethics without true suffering possible? If the subjective experience of pain is “actually” neurological networks kicking into action, what is the basis for morality? How do we escape the logic of Descartes, extended to humans? Is morality, as some argue, an adaptive evolutionary strategy that merely privileges social genes? Is it a social contract among mutually deluded beings without minds? Or have materialist scientists and philosophers made a terrible fundamental error?

In an effort to understand everything in terms of matter and mechanism, I believe that we have indeed made a tragic error in discounting the qualitative experience of life. Subjective experience is all we have, and science itself is built upon it. Instead of

fearing the subjective, we need to befriend it, and physics since the early twentieth century has done exactly this.

THE TURN TOWARD EXPERIENCE

For those who know a little modern physics, the flaw is not hard to find. It is already hidden in the word “*extensa*,” or length/extension. Arguments for reductive materialism are based in a seventeenth century mechanical philosophy even today. It is nearly four hundred years since Descartes and his contemporaries sought out the truth through reason and mechanism, but surprisingly little has changed in the style of explanation offered by neuroscientists and neuro philosophers. The revolution in thinking required by relativity and quantum mechanics has simply not penetrated these domains. The excuse is usually given that the new physics is not pertinent to the processes of biochemistry and the nervous system. This is largely true, although the field of quantum biology is developing apace. But this claim misses the point entirely. It is like the old saw: one cannot be a little bit pregnant. Likewise here, materialist accounts are not accounts of the real world but only a model, a conceptual schema that neglects the new physics. The world is pregnant with lived experience, and it is time to turn to that experience and to the essentially subjective character of reality, to accept the infant child some would deny.

Even if the effects of relativity theory and quantum mechanics are small for our daily life, the implications of these two advances for our world picture are profound. In my view, they invalidate Descartes’ logic and also the logic of scientific materialism. These recent physical theories open a new view on the relationship between mind and morality. I see relativity and quantum mechanics as flipping the argument around 180 degrees. The measurable effects may be small, but the implications are huge and surprisingly relevant to the question of mind and morality.

These theories shift us from a false objectivism to a view in which subjectivity is real, and real at every level of analysis. Subjectivity never disappears. It is our friend, not the enemy science has made it out to be. It is our friend because if subjective experience does not need to be turned into something else (neurons firing), then the experience of color, sound, and even pain have standing. They are real, as real as anything else. The love you feel for your children is not merely oxytocin. Indeed, oxytocin, neurons, action potentials, and so on exist, but they are only

another part of our phenomenal lived world of experience; real but not privileged. Their ontological standing is no greater or more fundamental than the warm glow of love you feel.

THE FLAW

The scientific understanding of the world from 1600 until 1900 sought to account for reality in terms of a few so called primary qualities, foremost among them being extension or length. Length was taken to be an invariant attribute of the things that comprise the world. Everything had a size, and that size was independent of the observer and so “objective.” By contrast qualities like color or smell (or pain and suffering) were not to be trusted because they were tied to the observer and so were “subjective.” Length, mass, and a few other “primary qualities” could be trusted as observer independent properties of the things themselves. Reality, as depicted by science prior to 1900, was to be explained in terms of these few objective properties.

With the relative theory of Einstein we now know this view is simply wrong. Length is relational. Objects do not have sizes “in themselves,” but only relative to a frame of reference or an observer. That is, different observers in relative motion will disagree about the length of an object. Moreover, no privileged frame exists where the “real” length can be ascertained. All frames have equal standing. The same can be said about mass. Inertial mass is the resistance a body shows to being accelerated by an applied force. As a body speeds up, its measured inertial mass increases. The mass of a thing is not a fixed value but depends on the state of motion relative to an observer.

Likewise, time intervals and even the concept of “now” become fluid in relativity as they are tied to the observer. The idea of an observer-independent reality with its own set of objective properties is a fiction. All attributes are ultimately tied to observers, real or imagined.

You may protest asking, what was the universe like before all life or observers? Imagine CNN sends a news team with a physicist as “color commentator” to find out. They have to set up somewhere. All descriptions are from some vantage point, even if in our imagination. There is no view from nowhere.

The relativity of length, mass, simultaneity, and so on is not a problem, but rather the solution to the problems presented by experiments in nineteenth

century physics. Length, time, and other similar properties are always relationally given—that is to say, subjective!

THE ELUSIVE NOW

I snap my fingers, and so mark an instant in the stream of time: now! I imagine events all across the universe emerging out of an unreal future, existing for an instant simultaneous with my finger snap (the present), and then quickly slipping into the past. At each moment in time, we naively suppose there is a unique state of affairs throughout the universe. Descartes, Newton,

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you, and everyone have held this view. But the hinge point and central insight of Einstein in 1905 was that this view is in fact wrong. Time

is not as we previously imagined it to be. In particular, he discovered that simultaneity is subjective (called the “relativity of simultaneity”).

You walk toward me and I toward you, and we give each other a “high five.” Our hands touch; an instant of time is marked. But each of us is moving relative to the other, and relativity tells us that observers in motion relative to one another will legitimately assert a different set of events as simultaneous with the high five. To be concrete: in my frame of reference, simultaneous with the high five, a rock tumbles down a hillside on the surface of Mars and a supernova lights up in the galaxy of Andromeda. In your frame of reference these two distant events are not simultaneous with the high five. You judge them to be in your past or future depending on your direction of motion relative to me.

Indeed, according to relativity the size of the time difference between my set of events and yours gets bigger with distance, as well as the speed of relative motion. To be specific, the difference in time will be more than three days for the supernova event in the Andromeda galaxy. What I legitimately assert as an event that is simultaneous with the high five, you will assert with equal legitimacy as having occurred three days ago.

ABANDON OBJECTS

Yes, yes, you say. But surely there must be a single unambiguous objective state of affairs at each

moment in time. But this is exactly what is not the case. There is no observer-independent vantage point from which to view the universe. There is no single state of affairs at each moment of time. The cosmic order, in fact, depends on the relativity of simultaneity, which implies that the precise account of events is always situational, contextual, or relative to a particular observer. The observer's subjective, situated vantage point cannot be eliminated. This fact cannot and should not be denied like an unwanted pregnancy, but welcomed like a newborn infant.

Science can make observation more and more reliable, and in that sense it can become objective, but science cannot banish observation or experience. Inert objects with their own properties no longer have a place in physics. As the eminent physicist David Bohm wrote in his classic book on special relativity, "the analysis of the world into constituent objects has been replaced by its analysis in terms of events and processes." Events are the observations made by particular subjective agents like you and me, and processes are the relationships that connect those events.

EMBRACE THE SUBJECTIVE

So abandon the false objectivism of the seventeenth century and embrace the subjective. Phenomena have standing. Welcome your unique present, your experience. Subjectivity is an ally, not the enemy. And with this radical reorientation, which is a turn toward life, we also regain the foundations for a true moral life. Our gut was right. Suffering and love and the mind are as real as anything in the universe, certainly more real than the idolatry we practice to the models advanced by a materialistic and mechanical interpretation of science. In place of mechanism we have a science of principles like Einstein's own "principle of relativity."

With this reorientation the "hard problem" also disappears. It was an artifact of a false view. If we accept subjectivity, experience, and the interconnectedness of things, we not only find our worldview supported by contemporary physics, but we open the door to a morality that is likewise grounded in experience—that is, in real suffering and joy. Every part of our lives is relational.

Every experience—from color to dreams—is open for investigation. We live in a world of eros and insight, not oxytocin and neural circuits. This view takes absolutely nothing away from the

rigors of science, except its metaphysical hubris and its old, misguided relationship to morality. Science is grounded in experience (events) and the relationships between them (processes). Objects are only constructs, approximations that can be useful as long as we do not reify them, granting them more standing than they deserve. If we do this, then we practice a form of idolatry that imbues them with more reality than they merit.

The universe is far more interesting than materialism makes it out to be. The mystery of consciousness becomes an open field for research in which the phenomena themselves have ontological standing and are not to be explained away in terms of mechanism. Experience itself beckons, not only urging us to develop more and more powerful instruments, but also to deepen and expand our experience by schooling our attention and meditative awareness. The inner and outer worlds both can contribute to a non-reductive science of mind, where the "taboo of subjectivity" disappears, and the awakened mind embraces its irreducible subjective nature.

For too long we have privileged brain over mind. In Europe 2014 was the Year of the Brain; let's make 2015 the Year of the Mind. Only on this basis will the mind as the locus of lived experience and reflection find its right relationship to morality.

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NOTES

1. P. Singer, *Rethinking Life and Death* (New York: Macmillan, 1996), 198.
2. H. Kuhse and P. Singer, *Should Baby Live?* (New York: Oxford University Press, 1985), v.