What Is a Miracle?  
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Abstract: Based on arguments from theology and the philosophy of science, a miracle may be defined as: (1) a real, individual event, the occurrence of which must be (or must have been), at least in principle, susceptible to empirical verification; (2) an event which must be extremely unusual or historically unprecedented from the perspective of empirical scientific knowledge; (3) must evoke widespread wonder; (4) must be something freely given by God and not conjured; (5) must be understood as a special sign from God that transcends the bare facts of the case and communicates a spiritual message; and (6) must have been affirmed as a miracle by the community of believers to whom the message of the miracle must be addressed, at least indirectly.

This issue of the Southern Medical Journal undoubtedly represents the first time a multi-article section of a medical journal has been devoted to the subject of miracles. Given all the talk in popular circles about miracles and medicine, a serious treatment of the topic is long overdue. And given the views expressed by the Buddhist, Islamic, and Jewish contributors to this issue, culturally competent clinicians will need to be aware that the idea of miraculous healing is accepted far outside the confines of fundamentalist Christian communities.

Perhaps no word is more abused in medicine than the word “miracle.” Sometimes this word is used to describe the work of a surgeon who has successfully performed an operation that no one has done before, or to report that a medical scientist has produced a “wonder-drug.” At other times the word is used by tabloids to describe a story about a so-called “miraculous cure.” These sorts of uses of the word “miracle” make genuinely religious people cringe.

The notion of religious miracles, however, sits awkwardly inside the temple of scientific medicine. The idea that a patient is praying for a miraculous cure concerns many physicians. Skepticism about miracles is most common among scientifically educated persons who balk at the idea that anything can happen “contrary to the laws of nature.”

Against the Laws of Nature?
The idea that miracles are events that contravene the laws of nature, as Pawlikowski relates in his article in this special issue, dates to a 13th century Oxford professor of theology, Alexander of Hales. As Pawlikowski points out, for the first 12 centuries of Christian theology, this was not a necessary part of the definition. It has been under this formulation that skepticism about miracles has developed in the West.

Hume was preeminent among these skeptics. Hume argues that the idea of something happening contrary to the laws of nature is irrational, and he concludes that belief in miracles is therefore irrational. The Humean critique of belief in miracles succeeds only against those who believe in the God of the Deists, who stands outside the order of nature, sets up rational natural laws at the beginning of creation, and then, if he later intervenes, must do so irrationally and contrary to the perfectly rational laws he established at the beginning of time. Orthodox Christian belief rejects this suppressed premise, which is necessary for Hume’s argument to succeed. Given the fact that he therefore is attacking a belief mainstream Christians do not hold, and that most deists have been dead for centuries, Hume’s argument should cease to be considered anything more than a curious historical footnote.

As Pinches points out in his article, Aquinas is often misinterpreted regarding miracles. Aquinas does not hold that miracles are events that contravene nature. Rather, he argues that there are never any events that occur contrary to nature. Instead, he suggests, events may occur in a way that is contrary to the order of nature. What he means by this distinction between nature and the order of nature is that, according to orthodox Christian belief, God is the sustaining and first cause of everything in the knowable universe. God is the creator-cause, as well as the occurring cause of every thing that exists and the ground of all proximate causation. In other words, orthodox belief rejects the deist presumption that God is only the first cause, ie, the creator of the world, but then stays out of the world and its independent affairs. Aquinas asserts the orthodox belief that God not only created the world at the beginning of time, but is also intimately involved in the world as the occurring, sustaining cause of
everything that exists at every moment—that everything that exists, exists in contemporaneous and necessary relationship to God. This necessary, sustaining, ongoing relationship with God as the occurrent cause of everything is essential to the nature of things. God is thus not outside of nature as an unnatural proximate cause that manipulates the natural, but is immanently present to nature as the ground of all existing things and the ground of causation. Nor is God just some other thing inside nature causing things to change by proximate causation as a force of nature or as one superhuman thing exhibiting agency among the other things in the world like a demigod. In neither case would God be God.

Thus, a phrase such as the “laws of nature” can only make sense if it is interpreted as “the order of nature:” a set of descriptions about how things usually operate, including causal explanations that trace back, imperfectly and incompletely, a chain of causes that would ultimately lead to a first cause, a “Prime Mover”—the god of the philosophers. The task of natural science is to explicate this natural order. Nonetheless, nothing that actually happens could ever be contrary to the nature of things or contrary to God’s plans or rationality. When something appears contrary to the order of nature, it may either be because we have incompletely understood this order of nature through our fallible science; or, it could not be described as “unnatural” because the nature of everything and every causal relationship that exists includes a necessary, contemporaneous relationship to God as its occurrent cause. Existence is always open to new disclosures of the reason and love of God. One might not understand how a particular event comes about, but this does not imply that it is not, at least in principle, knowable as a reasoned and free act of God’s continuing creative engagement with the world.

What Cannot Be Explained by Science?

Events happen—naturally. No event is ever contrary to nature. People of faith call some of these events, which appear out of step with the usual order of nature, miracles. Some claim that these events are miracles because they cannot be explained by science. To illustrate why this view is also misguided, consider the following story:

A 60-year-old Franciscan patient named Friar Roy develops pneumonia. As the infection resolves, his internist worries that a density persists on the chest x-ray. Friar Roy is a smoker, so the concern is quite real. Computerized tomography (CT) suggests a malignancy, and repeat scanning demonstrates its persistence six months after the original pneumonia. The location of the lesion precludes transbronchial or percutaneous biopsy, and he is scheduled for open biopsy and resection if the frozen section proves malignant. He gathers the night before the surgery with his fellow friars for a communal celebration of the sacrament of the sick. He is anointed with oil and his brothers pray for him. The following day Friar Roy returns to the friary from the hospital early in the afternoon because his surgery has been canceled. His routine preoperative chest x-ray, taken that morning, showed no lesion to be removed. A hasty CT scan confirmed that the lesion, which had been present for six months and was last seen 10 days before, was no longer there.

Was this a miracle? Friar Roy and his Franciscan brothers thought it was.

Can science settle the question of whether this was a miracle? The answer is absolutely not. Science might suggest that this event was contrary to the order of nature, but as I have explained, this does not mean that this event was contrary to nature. More importantly, deciding whether this event could be explained by science cannot, in principle, prove decisive in evaluating whether this event was a miracle. Yes, Friar Roy’s lesion could have been a malignancy that regressed spontaneously, but it would have been highly unusual. If this is what it means for something to happen within nature but contrary to nature’s order, one could affirm this. Similarly, this could have been a peculiar case of a very persistent scar from a pneumonia, but again the long persistence and then sudden disappearance of that scar would be highly unusual. Again, if this is what it means for something to happen within nature but contrary to nature’s order, one could affirm this. Alternatively, could Fr. Roy’s history have an historically unprecedented expression of God’s rationality, love, and creativity with respect to the world? The answer is yes. This would have been highly unusual, and if this is what it means for something to happen within nature but contrary to nature’s order, one could also affirm this. Science cannot settle the question: it cannot decide between these three or a thousand other explanations. Science cannot fully explain any individual event.

One reason that a particular event cannot be explained by science might be due to human ignorance. Our science is fallible and constantly under revision. In fact, the known universe seems far too big for us to believe that we will ever fully comprehend all of its potentially knowable scientific laws.

Another reason why a particular event cannot be explained by science might be a result of the laws of probability. Science deals with universals and statistical generalizations. In their annotated bibliography, Kub and Groves point out that Shermer has observed that whatever is possible, given enough time, eventually happens. This is true. But it does not explain the event that occurs at this time.

A more sophisticated understanding of it suggests that science cannot, as a matter of epistemological truth, distinguish between the miraculous and the mundane. Scientific laws, as Svaulescu and Clarke point out, are always ceteris paribus (other things being equal) laws. Scientific laws are always, in a sense, artificial. To “do” science, one needs to hold some things constant in an artificial way to study the question at hand. The use of an insulin clamp is a good example. One has to say, for instance, that if one infuses a
constant level of insulin, this is the mathematical formula for scientifically describing the rate of glucose infusion needed to achieve a fixed blood glucose concentration, thereby characterizing what we mean by insulin resistance. In reality—in actual clinical cases—other things are not equal (ceteris non paribus). The blood glucose and insulin levels are never constant but are always changing. Importantly, clinicians need to be aware that the gold standard of clinical science, the randomized controlled trial, is designed to produce nothing more than a ceteris paribus inference. Techniques such as the creation of control groups and the process of randomization are as artificial as the insulin clamp. These manipulations are performed to permit abstraction from individual cases to reach a level of general inference. What medical science says is only absolutely true if everything else is equal, and in actual clinical practice these conditions are never fulfilled.

As Lonergan argues, there is an empirical residue—individual events, particular times, and particular places—that cannot be explained but only abstracted from. Science deals with universals, relating the data to each other. Medicine deals with particulars, relating the data to the individual, and that which is individual can never be fully explained by empirical science. There is no scientific insight beyond the brute fact that one individual differs from the other. We can, for instance, describe statistical norms governing the distribution of the position and momentum of electrons, but it cannot be explained that a particular electron at a particular moment has a particular position and a particular momentum. One can only abstract from that fact. Likewise, physicians can explain what usually happens when someone has a residual lesion after pneumonia; they can hazard a diagnosis of postobstructive pneumonia due to a malignancy; but they can never fully explain any particular case.

So, the order of nature, the laws of nature, empirical science, cannot, as a matter of principle, exhaust the knowable—the nature of what is. And what cannot be explained by reference to the laws of nature is not against reason—reason itself affirms the empirical residue and the limits of empirical science. Events happen, and Aquinas is correct—events are never contrary to nature even if some particular occurrence appears contrary to the order of nature (ie, is distinctly unusual or unprecedented based upon our empirical scientific knowledge).

Miracles are individual events. As such, they cannot be explained by the laws of science. But it should now be clear that this observation does not distinguish miraculous events from other individual events. No individual event can be explained by empirical science. As Pawlikowski and Harvey point out in their descriptions of the Roman Catholic Church’s scientific commissions on miracles, all one can say is that the event appears to have really occurred and that it is distinctly unusual or historically unprecedented from the perspective of empirical scientific knowledge.

**Subjective or Objective?**

Miracles are events. And while it may not be possible to prove retrospectively that a particular event actually did occur, the claim that an event was a miracle requires, by definition, a judgment that the event really took place. This feature of miracles is important in teasing apart another historically unfortunate and misleading dichotomy—the distinction between the subjective and the objective meanings of the miraculous.

Miracles are, by definition, real events. In this important sense they are always objective. Miracles are susceptible to the elementary judgment of fact: something happened. Miracles are public and factual. In this sense, they are verifiable. A person may claim, “I have been miraculously cured of lung cancer,” but then may continue to have signs and symptoms consistent with lung cancer. If that person dies and the autopsy shows widely metastatic lung cancer, and the pathologist declares that lung cancer was the cause of death, the claim of a miracle is false. Miracles are, in this sense, objective.

As the argument in the first part of this article shows, however, to claim that miracles are objective cannot mean “proven to have violated the scientific laws of nature.” Given the contingent, ceteris paribus nature of empirical science and nature of God’s relationship with the things of the world, the question of whether a particular event that has been deemed a miracle represents a violation of the scientific laws of nature simply makes no sense.

The sense that believers make of a miraculous event is the message they believe God is communicating through that event. This meaning is transcendent, not empirical; theoretical, not scientific.

The religious person considers the world to be spiritually heterogeneous. It is true that, at least in orthodox Christian belief, God is held to be omnipresent (ie, God is everywhere). But this creedal proposition is not contradicted by the idea that the spiritual world inhabited by the religious person is lumpy—that God’s presence is qualitatively different across time and space. The experience of the religious person is that God’s self-disclosure to human beings is more profound in some particular times and places than it is in others. The religious person often experiences the presence of God in a way that is more intense than in moments that characterize the humdrum of life: e.g.—in the presence of natural beauty, in peak experiences of personal prayer, at times of moral decisiveness motivated by religious conviction, in profound historical events, in liturgy and ritual, and in events that are characterized as miracles. This is the true “subjectivity” of the miraculous—the personal affirmation of the self-disclosure of the divine that occurs in miracles—just as it does in these other sorts of events.

Thus, the critical religious question is not “Did this event violate the laws of nature?” but “What is the meaning of this miracle?” Miracles are signs from God. Miracles transmit
messages. Precisely because they are unusual or unprecedented according to the empirical and scientific laws of nature, miracles evoke awe and wonder. Miracles can shock us out of our complacency. They might even awaken us from our utilitarian slumbers. Miracles can inspire, or teach, or cause a re-consideration of the paths we have embarked upon, or even convert us. Sometimes, a miraculous event coincides with the object of a specific petitional prayer. Often, miracles involve events of physical healing. But the critical question for people of faith is always, “What is God communicating through this event?”

As Pinches observes, the meaning of the miracle, of necessity, points beyond the mere fact of the matter. Miracles have transcendent meaning. The actual event is of lesser importance than God’s opportunity to begin a conversation with the religious person by saying, “Now that I have your attention...”

**Serendipity, Provocation, or Conjuring?**

A critical feature of the theology of a miracle is that a miracle must be a free gift of God. This condition is certainly fulfilled if it happens serendipitously—i.e.—spontaneously and without being sought. Many miracles are like that. Events happen. Some of them are so out of the ordinary that they fill people with wonder. The more one reflects upon the event the more one realizes that it would be exceedingly unusual or unprecedented from the perspective of empirical science. First, one is filled with awe and wonder. Inexorably, one is led to find a message from God in it. A paradigmatic example of this sequence of events occurs in the Christian scriptures when Saul, the persecutor of Christians, is knocked from his horse, blinded, and hears the voice of God raising questions about what he has been doing with his life. He later recovers his sight and is radically converted.

So, some miracles occur without being sought. Some may even be contrary to a person’s conscious desires and preferences. Such miracles fully respect the freedom of God, which can (and often does) challenge human freedom.

Many (if not most) miracles of healing, however, are provoked. They are sought after. The event of healing is quite often the explicit object of highly directed, focused, petitional prayers—the prayers of the one who is healed, the prayers of others, or of both: “Please God, cure me/my daughter/my father, etc.” If the cure happens, and it fits all of the other characteristics of a miracle, that event may still justifiably be called a miracle. This is because provocation, properly understood, does not foreclose the freedom of God. To be a petitioner is to be a supplicant before an authority; to be the one who has not, asking the one who has; to be the one lacking in power standing before the powerful. To be a petitioner is a full-fledged acknowledgment that someone else is in charge and that one is asking for charity, mercy, justice, or kindness.

Mircea Eliade distinguishes such provocation from what one might call conjuring. Genuine religious experience is, of necessity, out of human control. Once one realizes one’s creatureliness and finitude, one stands in awe before the maker of all, often with feelings of unworthiness and profound gratitude for one’s existence, dependent radically on both the primary and occurrent causality of the Creator. If that Creator-God is to be experienced in some significant way, it will always be because the Divine has freely chosen to self-disclose in a manner and time that is sacred and free, not profane and constrained by time, space, or human will. Thus, one can ask God for a sign, predispose oneself to receiving such a sign, nag, or try to spur God into action without violating the condition that the sign must be freely given. Prayers for a miraculous cure may thus be genuine and religiously legitimate provocation.

By contrast, conjuring is magic, not religion. In conjuring, the human being is in charge—commanding and not merely provoking God. The conjurer is attempting to use God as an instrument of his or her will. What matters most to the conjurer is the outcome; what matters most to the petitioner is his or her relationship with the Divine.

Conjuring, not simony, is the primary sin of Simon Magus (Acts 8:9–24). Simon was a magician who offered money to the disciples of Christ, hoping to obtain from them the power to convey the Holy Spirit by the laying on of his hands. While there are many lessons one can learn from this story, the most fundamental one is not so much that Simon Magus wanted to pay money for this power but that he wanted to control the Holy Spirit. He wanted to own the Holy Spirit and manipulate the Holy Spirit at will. He wanted to reduce God to magic, and to conjure God’s action and command a power that was only God’s. One who tries to try to control or manipulate God’s power, even for a good purpose such as healing, is a conjurer. A genuine miracle cannot be conjured. God is neither a therapeutic nostrum nor a surgical implement to be wielded at will. Miraculous cures are not magic tricks. One cannot pray them into existence, make them happen, or force one’s will upon God.

The distinction between conjury and petition has important clinical implications that I address in a brief article later in this special issue.

**Petitional Prayers for Miraculous Cures**

If they are powerless to bring about a cure by their prayers, and God is free to cure or not to cure those who pray as well as those who do not pray, what are people doing when they pray for a miraculous cure? Are they simply wasting their time, a point upon which both the theologian and the skeptic can agree?

Petitional prayer is probably the simplest, most spontaneous, and often the most heartfelt form of prayer. In petitional prayers, religious persons are asking God for
good things, however bold and presumptuous this might seem. They are provoking God. They are making God aware of their needs and those of others, expressing their awareness of their relationship to God and radical dependence upon God. In this sense, sincere petitional prayer always “works.” The work of such prayer is not to force God to bend the future to one’s will. Theologically, the work of any prayer is for human beings to open themselves to the grace of God that is always nearer to them than they can imagine. The work of prayer is to tell God of one’s deepest hopes and fears and to let God flood one’s heart. The desire expressed in petitional prayer—the opening of one’s heart to God—is precisely the point of such prayer.

Prayer always does change things. As Annie Dillard writes, “True prayer surrenders to God; that willing surrender itself changes the situation a jot or two by adding power which God can use.”

The fact that a person prays does change the situation. The bare fact that prayer has occurred means that the situation is qualitatively different from it might have been if no one had prayed. Theologically speaking, the God who is just as present to the future (and the past) as to the present hears that prayer and has already incorporated that prayer, providentially, into the future. From the human perspective, this may mean that God has changed the situation in response to prayer. How this appears to God, who is the ground of all time but not bound by it, God only knows. To a genuine believer, this does not matter: it is the prayer that matters.

Miracles and the Religious Community

There can be no private religion. There can be private spirituality, but no private religion. The argument to support this is precisely parallel to Wittgenstein’s argument for the impossibility of a private language. Without a public standard by which to assess the authenticity of personal spiritual experiences, the identity of recurring personal spiritual experiences, or the correctness or incorrectness of propositions about the spiritual, there can be no religious language, no text, and no ritual. That is to say, there can be no religion.

Etymologically, the word ‘religion’ implies connection to a community—from the Latin religare—to bind or tie together. The word was initially used to refer to those who bound themselves to a religious community such as in a monastery.

These considerations are critically important when thinking about the nature of miracles. There are no private miracles. Miracles are public; they belong to the community of believers and not merely to the person who experiences the miracle. Miracles are signs from God, meant not just for one but for all. Miracles only become miracles when they are accepted as such by a community of faith. In some traditions, as described in several of the articles in this special issue, this process can be very formal. But in all cases, the claim that an individual might make to have been miraculously cured must be verified by that person’s faith community.

So, in thinking about miracles, the reality of the event must be publicly acknowledged. It must be deemed extraordinary not just be the individual but by a faith community. The community must share in the wonder at its occurrence. The question of the meaning of the event is also public—a question for the community as much (if not more) than it is for the individual.

This aspect of miracles—their public nature—also has very important clinical relevance when caring for patients who claim that they have benefited from miraculous medical events or are praying for a medical miracle. I discuss this in greater depth in another article later in this special issue.

A Definition

The foregoing discussion, dense as it might appear in parts, now permits me to offer the following definition of a miracle:

1. A miracle must be a real, individual event, the occurrence of which must be (or must have been), at least in principle, susceptible to empirical verification.
2. A miraculous event must be extremely unusual or historically unprecedented from the perspective of empirical scientific knowledge.
3. A miraculous event must evoke widespread wonder.
4. A miracle is something that can only be freely given by God and cannot be conjured.
5. A miracle must be understood as a special sign from God that transcends the bare facts of the case and communicates a spiritual message.
6. A miracle must be affirmed as a miracle by the community of believers and the message of the miracle must be addressed to more than one member of that community, at least indirectly.

This definition avoids the traps of previous definitions requiring that the event contravene the laws of nature or requirements that the definition be classified as a “subjective” or “objective.” This definition is consistent with contemporary philosophy of science, and also with traditional theology. This definition excludes the related phenomenon of visions, and that seems theologically appropriate. Visions are direct communications from the Divine without any intervening events. They can be accompanied by miracles (eg, the claim that an artistic representation of the sacred has been marvelously transformed or developed miraculous healing powers). But the vision itself would be a pure message and need not be accompanied by a miracle.

Some might think this definition is too permissive. By departing from the requirement that the miracle contravenes
the laws of nature, too many things could come to be called miracles. Yet this definition requires deep faith in God’s omnipotence, omnipresence, and immanent transcendence; a faith that God is present to the sick whether their prayers for a cure are answered or not. To deny this seems to diminish God.

This definition also contains counterbalancing forces to prevent any cheapening of the use of the word miracle—emphasizing the role of the community, requirements for wonder, that the event be highly unusual or unprecedented, and excluding attempts at conjuring. Some might find these requirements too restrictive. But these requirements also give God what is due to God as the author of life and of the laws of nature. Furthermore, these restrictions serve as healthy corrective for the individualism and subjectivism that pervade Western thought and can even tinge our religious convictions.

Some Christians might think that this definition evinces a heretical rejection of God’s power to intervene supernaturally in human affairs. On the contrary, however, I would argue that the position I have presented expresses a more theologically robust faith—the belief that God is always intervening supernaturally in human affairs. To propose that God is only present to some human beings sometimes through grand and flamboyant events evokes profound questions about the theology that secures such beliefs. Recalling the story Mackler re-tells about Elisha and the prophets of Ba’al, one might ask what the proponents of God’s intermittent supernatural intervention in the affairs of humankind think God is doing when not intervening. Is their god sleeping? Is their god the distant (and perhaps indifferent) god of the deists rather than the Almighty God of the Abrahamic faiths? Further, as I have argued, science cannot, of itself, distinguish the natural from the supernatural. And for a believing Christian, at least, the supernatural is part of the natural. As Gerard Manley Hopkins puts it, “The world is charged with the grandeur of God.” Therefore, both epistemologically and theoretically, the basis for arguing that God intervenes supernaturally in human affairs only intermittently is unsustainable.

This definition of a miracle, I believe, is consistent with the other articles on the topic in this issue, written from a wide diversity of perspectives, and might, in some ways, pull them all together. I hope, too, that it will have important theological, clinical, and ethical implications along the lines that Orr outlines in his contribution to this issue.

References