Morality, especially the “moral issue” of abortion, played a major role in the recent confirmation hearings for two Supreme Court nominees. As a physician, I am accustomed to observing firsthand—and hearing my colleagues comment on—differences in the moral views people hold regarding when life begins and ends. People’s personal beliefs affect their responses to various events: “Should I undergo in vitro fertilization?” “Should I terminate my pregnancy?” “Should I have amniocentesis?” “Should I stop further resuscitation on Dad?”

Views: It is important that we each have a “moral compass” to help make such decisions. But when we look for absolute moral certainty, sometimes the compass needle will waver. For example, people from the Judeo-Christian tradition presumably accept the commandment “Thou shalt not kill,” but nevertheless their views differ greatly on abortion, capital punishment, euthanasia, and war. We all must make decisions on these basic matters for ourselves—but we have no right to attempt to make them for others.

I am not a theologian. I am a reproductive endocrinologist, working to help couples have families. We use medical technology to assist couples with the fertilization process, hoping that embryos will form and that the embryos will develop into healthy babies. Like many people, I believe that life has a spiritual aspect as well as a physical one. But analyzing the physical aspects of human life is far simpler than analyzing its spiritual dimension.

Dimensions: Opinions differ about when human life begins. Many, although not all, religions hold that it begins at fertilization, with the union of a sperm and an egg. Father William Wallace, a theologian now retired from Catholic University in Washington, D.C., has written about St. Thomas Aquinas, a 13th-century Roman Catholic philosopher. Aquinas recognized the physical and spiritual dimensions of all living things—plants, animals, and humans. He thought of the spiritual dimension as a soul. He also proposed a hierarchy whereby human life would demand more respect. He wrote that human life proceeds through developmental stages and, conversely, that it may end in various degenerative stages.

Under such a scenario, the embryo at the time of fertilization would have a vegetative soul and draw its nutrition from the mother. As the embryo continued to develop, it would attain a sensory soul. At some time in the developmental process, when God deemed it appropriate, the organism would be invested with a human soul. During the “de-hominization” of the person at the end of life, the reverse process would take place. When a person entered into a coma with no chance of recovery, for example, the human soul would depart, leaving the body with a vegetative soul. A persistent vegetative state can go on for years until the heart fails and all bodily functions cease.

Science, of course, cannot prove or disprove theological proposals. But religion must often reconcile itself to new scientific discoveries. For example, Aquinas’s teachings antedated by four centuries the discoveries of Antony van Leeuwenhoek, a Dutch naturalist born in 1632. It was van Leeuwenhoek who first saw a sperm cell under a microscope—meaning the very concept of a sperm fertilizing an egg was inconceivable in Aquinas’s day. In modern times, technological advances in reproductive science continue to raise important theological questions. For example, when assisted reproductive technology was just entering the clinical arena in the 1980s, the Roman Catholic Church reaffirmed its belief that the fertilization of an egg by a sperm marks the beginning of human life. However, it is now possible under the proper laboratory conditions to take skin cells and grow them outside the body in a culture medium. Do they possess a human soul?

Code: All the cells in our body contain a nucleus, and this “sac” contains the genetic code for the individual. No one has yet cloned a human embryo (though a now-debunked claim to that effect was made by Korean scientists in 2004). But several species of animals have been cloned. Cloning starts with removing the nucleus from any cell in the body of the individual—animal or human—to be copied. Then the nucleus is removed from a recipient egg cell. Under proper laboratory conditions, scientists are able to coax the recipient egg to take up the nucleus of the individual being cloned. When this happens, the new cell begins to divide, creating many cells and a new individual. No sperm is needed. If our society were to drop its prohibitions against cloning, how would theological belief systems make sense of the living beings thus created?

Identical twinning (a type of natural cloning) occurs when a single embryo splits, usually during the first 14 days of embryonic development. Siamese twins result when an embryo splits later in the process of embryonic development. When such splits occur, did the initial embryo have one soul or two?

It is not the role of science to answer these questions. Jewish, Christian, Muslim, and many other faiths’ scriptures may guide us in making decisions that encompass a moral dimension, but there often are no right or wrong answers. So although individuals should take a personal stand on how they ought to act, I believe our pluralistic society requires that we remember the uncertainty surrounding these questions and that we respect the choices others make.