

When Does a Stem Cell Become a Human Being?

Scientific Perspectives from His Holiness the Dalai Lama

Each year, His Holiness the Dalai Lama meets with leading scientists and philosophers to explore ethical questions posed by the scientific community. These conferences, organized by the Mind and Life Institute, serve to establish a working collaboration and research partnership between modern science and Buddhism.

The most recent 10th Mind and Life conference took place in October 2002 in Daramsala, India. It brought together leading scientists, including Nobel-prize winning physicist Steven Chu, and world-renown genome researcher Eric Lander of the Massachusetts Institute of Technology. Other participants included philosophers Ven Matthieu Ricard, Alan Wallace, and Thubten Jinpa. Special guests included His Holiness the Karmapa.

The questions they explored: How is life related to matter? When does life begin? What about moral challenges presented by recent advances in biotechnology? Is stem-cell research ethical? What about animal research?

The following is an excerpt of His Holiness' responses:

"From the Buddhist perspective, the general line of demarcation in ethics is based mainly on the long-term consequences—the results of the scientific research. It's very difficult to distinguish the ethical status of an action simply by judging the nature of the action itself. Much depends on the actor's motivation. A 'spiritual' act with negative motivation is essentially wrong. A more aggressive act may seem destructive, but if that specific action is carried out with altruistic motivation, and the proper sort of goal, then it could be positive. Of course, the motivation is not opaque to the individual who is engaged in the act. So, it very much depends on the scientists' motivation. If you as scientists have a sincerely compassionate motivation, and a sense of responsibility for the long-term implications, then carry out your work

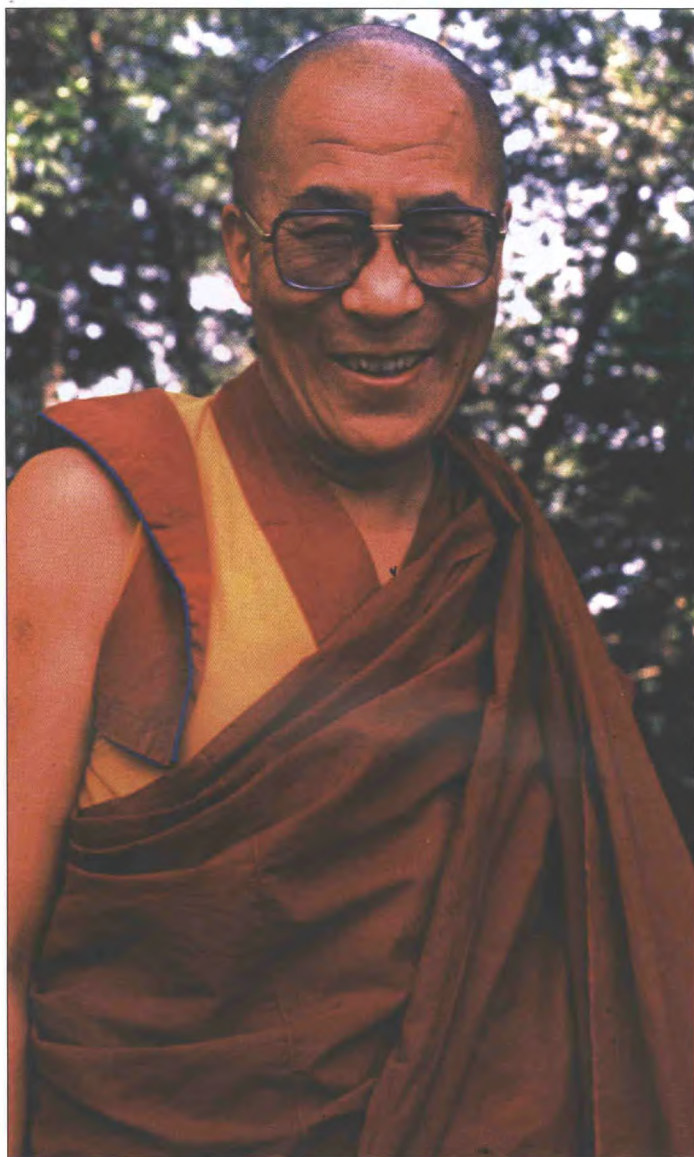


His Holiness the Dalai Lama (center), Steven Chu (left), Thubten Jinpa (right).

and make your decisions.

"Although you may expect future good to come of research, the outcome is not clear. One could say that almost every action has a possibility for a positive and a negative outcome. Food is meant to sustain the body, but sometimes foods that taste very good are very bad for my stomach; and some that are very good for my stomach taste very bad. So I have to make a compromise. It's the same with anything. There are positive and negative effects. Some are short-term and some long-term. But the long-term interest is more important than the short-term. If you have to weigh the benefit for a smaller community against a larger community, the larger community is more important, generally speaking. But the basic point is that whatever is most beneficial is what needs to be pursued—or at least what an individual feels is probably going to be of most benefit and least negative is what that individual should carry out.

"On the question of gene replacement and manipulation, this is similar to things we are already doing at the gross physical level. For example kidney, heart, and liver



From the classical Buddhist standpoint, it has become a sentient being and extermination of that would be morally equivalent, almost, to killing a human being.

"But how do we understand at what point consciousness enters the embryo? This is problematic. A fetus, which is becoming a human is already a sentient being. But a fertilized egg may actually bifurcate into 8, 16, 32, 64 cells and become an embryo, and yet be naturally aborted and never become a human being. This is why I feel that for the formation of life, for something to actually become a human, something more is needed than simply a fertilized egg. It may be that what you do to a conglomeration of cells that have the possibility of becoming human entails no negative or karmically unwholesome act. However, when you're dealing with a configuration of cells that are definitely on the track to becoming a human being, it's a different situation.

"In some areas, Buddhism may have a different perspective from secular ethics. I think for example about human rights. From the Buddhist viewpoint, it is very difficult to claim that we human beings have special rights that are categorically different from animal rights. All sentient beings, all beings who have the experience of pain and pleasure, have the natural right to protect their existence and fulfill their aspiration to overcome suffering and enjoy happiness.

The claim to rights is based on the capacity to experience pain and pleasure; it has nothing to do with intelligence, which is the main distinction between animals and human beings. They have the same experiences of pain and pleasure that we do.

"The Buddhist viewpoint on animal experimentation is similar, I think, to Marx's belief in the minimum use of violence. We should not take it for granted, but should minimize it. If something is really necessary in order to save precious human lives, then perhaps it is worthwhile. Perhaps."

For information on His Holiness the Dalai Lama, including his schedule, please see www.tibet.com/index.html. For information on the Mind and Life Institute, its conferences and publications, see www.mindandlife.org.

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transplants are now very common practice and patients benefit from these transplants. By extension of that principle, one could conceivably replace or change certain genetic components that are instrumental in causing diseases. But we should at least have a very high degree of knowledge of the implications, both the benefits and the side effects. And then, perhaps, in principle, this would be acceptable.

"On the questions about stem cell research, I am thinking about the issue of when an embryo becomes sentient from the Buddhist point of view. The Abhidharma texts mention that consciousness enters the embryo through the meeting of the regenerative substances of the father and mother, and at that point it becomes a sentient being. The term that is used implies that, at that point, the embryo is becoming a human.