Attitudes towards human reproductive cloning, ART and gene selection

Sir,
I was delighted to see the article of Prainsack et al. (2007) on the comparative attitudes of monozygotic (MZ) twins and dizygotic (DZ) twins on the subject of human reproductive cloning (HRC).

It is true that cloning is not portrayed well in the media, and science fiction has a long history presenting us with strange new worlds where human clones are soulless carbon-copies of ‘real’ human beings. The Prainsack twin study showed that MZ twins were much more likely to approve of the use of HRC for medical purposes such as saving the life of a sibling than were DZ twins. The implication of findings like these is obvious; MZ twins, sharing 100% of each other’s DNA, are aware that, although they are identical genetically, they are people just like anyone else, just as there is no real difference between a person conceived via IVF and a person conceived naturally. However, it is easy to see how a large number of people can go through life without ever being confronted with the reality of the situation that MZ twins find themselves in.

Another objection to HRC is the idea that mere mortals should not play god. Indeed, Prainsack et al. found that increasing religiosity correlated with a more negative view of HRC. However, religion has been a major barrier to many if not most scientific innovations in the past, from Galileo and his theories on astronomy, to the Hadron Collider, so perhaps the current state of affairs will resolve itself with the passage of time.

Somatic cell nuclear transfer uses the cells which our body normally discards or reabsorbs (Wilmut et al., 2002); if using these cells to make a new life is wrong, what does that mean for every sloughed off skin cell, every ovum lost during menstruation, every sperm that makes a new life is wrong, what does that mean for every sloughed discards or reabsorbs (Wilmut et al., 2002)?

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Somatic cell nuclear transfer uses the cells which our body normally discards or reabsorbs (Wilmut et al., 2002); if using these cells to make a new life is wrong, what does that mean for every sloughed off skin cell, every ovum lost during menstruation, every sperm that is thwarted by contraception?

References

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Reply: Attitudes towards human reproductive cloning, ART and gene selection

Sir
I thank Emma Harcourt for her interesting comments on the implications of our study. Indeed, monozygotic twins share 100% of their DNA and they are born at the same time, which renders them more similar than cloned human beings would be. The fact that identical twins in our survey were, nevertheless, more supportive of human reproductive cloning for medical purposes than non-identical twins (Prainsack et al., 2007), highlights the contextual nature of the concept of cloning (and arguably most medical technologies). Human reproductive cloning per se is not harmful or beneficial, but it depends on for what purpose and in what situation it would be used. Most people perceive medical technologies not as isolated things or events but they assess it in close connection with the actual or anticipated impact of the technology on their lives, relationships, their health life plans, etc.

With regard to technologies which do not (yet!) exist, such as human reproductive cloning, individuals have no actual experience which they can draw on to assess its value or their harm. The less concrete experience individuals have with a technology, the more they resort to abstract values to guide their attitudes and actions. In the cases of religious people, these values are often congruent with the teachings of their faith. This is arguably why in our study, more religious individuals were more sceptical towards medical technologies. However, it should be noted that this applied to high levels of religiosity in a Christian context and should not be generalized to other religions, whose teachings in many instances are more positive towards medical and technological advances (Prainsack et al., 2009).

References

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