

OPEN ACCESS

Repository of the Max Delbrück Center for Molecular Medicine (MDC)
Berlin (Germany)
<http://edoc.mdc-berlin.de/>

Clone wars?

Christof Tannert

Published in final edited form as:
EMBO Reports. 2006 Jul; 7(7): 656 | doi: 10.1038/sj.embor.7400739
Nature Publishing Group (UK) ►

Clone wars?

Christof Tannert

Christof Tannert chairs the Research Group for Bioethics and Science Communication at the Max Delbrück Centre for Molecular Medicine in Berlin, Germany e-mail: tannert@mdc-berlin.de

In this issue of *EMBO reports*, Yvette Pearson questions my argument that reproductive cloning violates our moral values (Pearson, 2006), which I described in my own Viewpoint earlier this year (Tannert, 2006). Although I appreciate Pearson's engagement in this debate, I feel obliged to respond to some of her criticisms.

First, she alleges that I appeal to genetic determinism. Quite the opposite is true, as can be inferred both from the context of my article and from my quote about natural monozygotic twins: „...although they are largely identical internally and externally, they are not perfect copies of each other. During their lives—starting from the separation of the first two cells to their development in the uterus and eventually to their death—random processes and mutations further shape their individual history and ontogenesis and leave their imprint from conception on, even in their genomes“ (Tannert, 2006).

Of course, individuals are not the mere sum of their genes and I have argued against this ill-advised idea of a mechanistic determinism in biology for more than 40 years. But I have also fought the similarly foolish idea, most notably re-animated in the 1950s in the Soviet Union and inspired by Stalin himself (Soyfer, 1994), that an individual is only shaped by its physical and social environment. There is no doubt that genes fundamentally determine how an organism develops. But we do not yet know how strongly genes and/or the biological and social environment influence this development. Genes define us as a species, and they clearly contribute to defining us as individuals.

On the basis of another quote from my article, Pearson suggests that I regard only cloned beings as artefacts. Again, this is not true. In my view, any assisted reproductive technology starts with the creation of an artefact, a product of human art and technology. Accordingly, there are reasons to regard *in vitro* fertilization *per se* as ethically reprehensible—or at the very least, questionable—owing to ethical problems, but there are also arguments to think otherwise. Lacking space, I will not delve further into this debate.

However, we do not need any arguments over genetic determinism and the ethics of artificial reproduction—as well as a putative „right to a unique genotype“ (Brock, 1998; Pearson, 2006)—to formulate an ethical argument against reproductive cloning on the basis of Kant's axiom of human autonomy. Instead, the core argument is that any constriction of human autonomy that is arbitrary, avoidable and not necessary to ensure the basic requirements for an individual's survival, intervenes in the autonomy of that individual and is therefore

reprehensible for moral reasons. Consequently, any such biological, pedagogical and even socioeconomical interventions should be avoided if we regard human autonomy as a constitutional right. There are, of course, necessary constraints of autonomy, for example when parents educate their children. Similarly, a couple conceiving a child also limit its autonomy in the sense that they provide their genetic material—whether the reason for having a child is narcissistic or not. However, to pursue reproductive cloning and therefore impose one's genome—for whatever selfish reasons—on another human is arbitrary, unnecessary for the well-being of the clone and an avoidable constraint of the clone's autonomy. This alone is the leading moral principle of my argument.

It is a principle, not a law. Regarding logistical cloning—an unfortunate term in my view—which Pearson cites as an argument to allow reproductive cloning if there is no other means to have a genetically related child, it would indeed be alarming if we invalidated a moral principle to that end. Just because the means exist does not automatically grant the right to use them. When weighing the strengths of moral arguments, the right to have a genetically related offspring „to carry on the family line“ (Pearson, 2006) must therefore be secondary. The American bioethicist Arthur Caplan, when talking about reproductive technologies, put it this way: „You have to step in and try to make sure that reproductive technology ...is not just the Wild West“. He continued: „If you're going to make babies in new and unusual ways, then you have to protect the kid's interests, and they're not protected if all you're listening to is what the paying customer wants“ (Caplan, 2006).

Turning to my last point: whether we can allow the creation of a child, by whatever means, as a donor of immunocompatible cells for a diseased relative, is an ethically borderline case. If such a ‚saviour sibling‘ is born primarily for its own sake, then, and only then, might we allow its procreation for the secondary purpose of healing another child. Notwithstanding such arguments, the basic moral principle is: Thou shalt not clone!

References

1. Brock DW (1998) Human cloning: an assessment of the ethical issues pro and con. In Nussbaum MC, Sunstein CR (eds) *Clones and Clones: Facts and Fantasies About Human Cloning* pp 141–164. New York, NY, USA: Norton
2. Caplan A (2006) Building steps into slippery slopes. *EMBO Rep* 6: 8–12
3. Pearson Y (2006) Never let me clone? *EMBO Rep* 7: 657–660
4. Soyfer VN (1994) *Lysenko and the Tragedy of Soviet Science*. New Brunswick, NJ, USA: Rutgers University Press
5. Tannert C (2006) Thou shalt not clone. *EMBO Rep* 7: 238–240