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## OPEN PEER COMMENTARIES



# The Person-Affecting/Identity-Affecting Distinction between Forms of Human Germline Genome Editing Is Useless in Practical Ethics

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Would direct genetic modification of human embryos affect the welfare of future persons? Sparrow’s approach to answering this question fails a core goal of bioethics: to generate perspectives capable of practical influence in research, clinical settings, or public policy. Instead of engaging with research that offers empirically grounded accounts of human identity, Sparrow uncritically adopts Parfit’s well-known distinction between two types of genetic intervention: “person affecting” and “identity affecting.”

The distinction is central for Sparrow (2022). Given a legitimate concern for the future person’s expected welfare, it allows him to determine whether the intervenors bear moral responsibility for the outcome. Such is the case for *person affecting* interventions, for only in this case may the future person benefit or suffer harm from the intervention.

By contrast, the somatic or germline editing now possible through CRISPR usually involves some form of selection—via IVF, nuclear transfer of embryos in vitro, or preimplantation genetic diagnosis—for the “best possible child” prior to implantation in the gestational mother’s womb. Selection is identity affecting because it shifts the time of conception such that a

different sperm fertilizes the ovum and a different life is conceived. Because selection does not influence the selected future person’s genetic makeup, it can neither benefit nor harm her and the selector incurs no responsibility for the outcome.

Sparrow’s argument is dubious along several dimensions. First, it presupposes that all persons share the same understanding of the term *human genetic identity*. But even the relatively small community of bioethicists deploys the term in widely divergent, sometimes even mutually contradictory ways, in different contexts but even within the same context, from cells and genes to regions of DNA, from personal identity to ancestral identity, from (the beginning of) individuality to matters of privacy and property (Goekoop et al. 2020).

Scholars of diverse disciplinary perspectives, from medicine to the law, and from the social sciences to the humanities, wield the term differently. *Genetic identity* in paternity cases may not mean what it does in population genetics.

Further, depending on her cognitive interest, the analyst might distinguish the individual as a carrier of species identity from the individual as a carrier of,

say, human rights. In considering germline engineering and the welfare of future generations, she might have reason to distinguish questions about preserving the species' "genetic integrity" from questions about securing the individual's welfare in political community, where differences among individuals with respect to genetic identity are irrelevant in the distribution of rights but possibly relevant with regard to combatting various forms of discrimination (Boussard 2009).

Second, Sparrow examines human identity solely as a genetic phenomenon. Yet research indicates that many people regard psychological properties as more defining than bodily properties of identity, for example, the persistence over time of one's memories and personality as key to the persistence of their individual identity over time (Nichols and Bruno 2010). Along the psychological dimensions of our species—in the sense, for example, of creatures capable of granting themselves moral, legal, and political personhood—our diachronic identity is a matter of psychological, not genetic, continuity. Many people regard psychological properties as closer than biological traits to personal identity (and closer still to moral properties) (Shoemaker and Tobia 2022).

The notion of a "narrative identity" offers an additional way of analyzing human identity. Personal identity in this sense is a social construct. It organizes the individual's experiences and self-understandings into an account in terms of which she conceptualizes her life as coherent to herself and to others (DeGrazia 2005). Identity through narrative "self-creation" is distinct from identity on the basis of genetic phenomena. Here personal identity cannot be reduced to genetic information. Thus psychological and narrative models may measure identity change in terms not genetic (such as aging, illness, or mutation) but rather in non-somatic terms, for example in terms of religious conversion, philosophical insight, esthetic experience, or social trauma.

But, *pace* Sparrow, there is no empirical evidence that parents, choosing among fertilized embryos, or contemplating the editing of embryonic germline cells, are guided in their choices by distinguishing between somatic and germline engineering. Parents surely regard their decisions as affecting their future child—but not necessarily its genetic identity. If parents do not think that their child's genetic origins determine its personal identity, then they will not think that germline genetic modification or genetic modification of an existing individual transforms that person into someone else (Juth 2016). Consider, by analogy, adolescents born through IVF and other techniques of assisted reproduction. Their positive parent-adolescent

relationships, among other indices of healthy adjustment, may indicate that they do not regard themselves in terms of their nonidentity with the embryos not selected for implantation (Ilioi and Golombok 2015).

So by adopting Parfit's approach, Sparrow neither describes how parents actually think nor captures parental motivation. Parents who select one IVF embryo over another likely speak of a child, *their* child, but not, as Sparrow seems to suggest, of the future child they chose, X, over another possible future person that they did not choose, Y. Parents likely do not dwell on the nonidentity of X and Y.

The "non-identity problem," a philosopher's conceit uninformed by empirical research on human behavior, is irrelevant to how parents understand their reproductive choices involving genetic manipulation. If Parfit's distinction remains useless for practical ethics, then Sparrow's conclusion—that genome editing is not person affecting and hence neither benefits nor harms the future person—lacks practical import for the understandings and motivations of parents choosing among different forms of genetic manipulation. Uselessness is a problem for bioethical analysis. For two reasons, practical ethics does well to take ordinary people seriously as sources of judgment about their personal identity—not necessarily as facts about personal identity but rather as intuitions, especially intuitions widely shared. First, ordinary people are the primary addressees of gene editing technologies, hence the main stakeholders. They are served best when bioethics takes them as they are and not as philosophers may wish them to be. Pseudo-problems that distract from real issues faced by real people squander the analytic and motivational potential of the field. Second, to decide the normative framework for deciding difficult issues of human genetic editing requires, in a democratic society, public co-responsibility for deciding regulatory issues, responsibility that can only be secured through public consultation.

Regulation in this sense requires conceptual clarity, as does debate within and across medical, legal, and bioethical disciplines, as well as debate in the public sphere. Elsewhere I propose means to such clarity along two dimensions. In one case (Gregg 2022) I argue against any notion of identity based on the usually undefined term *human dignity* (which, because indeterminate in meaning, is useless as a guiding principle). And I argue against invoking identity as a kind of "genetic essentialism" that regards the human genome as somehow invested with a moral status. I develop an alternative: dignity as the decisional autonomy of future persons, held in trust by the current generation at the

point of genetic manipulation. A future person likely would embrace embryonal editing if, for example, it were to overcome what otherwise would be a political disability: a genetically based incapacity (such as severe cognitive disability) for decisional autonomy. (And popular deliberation, combined with expert medical and bioethical opinion, might generate principled agreement on how the decisional autonomy of future persons might best be configured.)

In another case (Gregg 2021) I show how essentialist understandings of human identity render possible agreement on urgent bioethical issues even more difficult than it would otherwise be. I offer a more plausible basis for agreement: a naturalistic understanding of human nature, construed politically as the self-understanding of the human species in response to the question: To what kind of human nature should we humans aspire? Thoughtful responses to that question might offer perspectives and standards for the regulation of human genetic engineering. Research indicates that social and political views on human nature, when combined with scientific knowledge, can facilitate notions of personal identity useful in analyzing the kinds of regulatory issues raised by CRISPR and other biotechnologies (Strohming and Nichols 2014).

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