

Genetic condition decision-making and slippery slopes



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Examples



- ‘Supporters argue that these concerns do not apply to modifications of mitochondrial DNA, which they characterize as an insignificant part of the human genome that does not affect a person’s identity. This is scientifically dubious. The genes involved have pervasive effects on development and metabolism. And the permissive record of the UK regulatory authorities *raises the prospect* that inheritable mitochondrial changes would be used as *a door-opening wedge* towards full-out germline manipulation, putting a high-tech eugenic social dynamic into play.’ [Emphasis added]
- Marcy Danovsky, ‘A slippery slope to human germline modification,’ *Nature* **499**, 127 (11 July 2013)
- ‘Preventing genetic diseases by human genetic engineering is inevitable. The slippery slope is when/if we start to use it for cosmetic changes such as eye color or for improving a desired athletic trait. A perfect example is surgery, which we have performed for hundred years for disease purposes and is now widely used as a cosmetic tool. Opening the doors for genetic engineering of human embryos *could* with time lead to manipulate genetics for desirable traits, raising the fear of creating a eugenic driven human population.’ [Emphasis added]
- Ethical Implications of Human Genetic Engineering
- Posted by Renuka Sivapathan | Aug 19, 2015 | Buck Institute’s Blog

Types of Slippery Slope Arguments



- Conventional to distinguish between two types: logical or argumentative and empirical or causal (Glover; Williams; Lamb)
- Roughly argumentative ones say that if you approve of A, you are committed to approving A_1 (or you will find it difficult to show why you should not approve A_1); and in turn from A_1 to A_2 to A_3 , and so on to B
- Whereas causal ones say that if A is accepted then that will – as a matter of predictive fact - lead to an acceptance of A_1 ; and in turn from A_1 to A_2 to A_3 and so on to B
- And whereas A is acceptable, B is not

Fallacy of aggregation



- Classic argumentative SSAs employ the familiar Sorites puzzles and deploy what Govier calls the *fallacy of assimilation*
- A is separated from B by a series of possible steps ($A_1, A_2, A_3, \dots, A_n$) and although A does differ significantly from B, A does not differ significantly from A_1 , and A_1 does not differ significantly from A_2 , and so on until A_n which does not differ significantly from B.
- Bernard Williams: *indistinguishable from* is not a transitive relation: ‘from the fact that A is indistinguishable from B and B is indistinguishable from C, it does not follow that A is indistinguishable from C’.

Causal SSAs



- A causal SSA appeals to the thought that whereas A is approved of and B not approved of, approval of A changes things in such a way that A₁ is, and that approval in turn makes it the case that A₂ will be approved, and so on, all the way to approval of B.
- Whereas argumentative SSAs may be shown to be fallacious, causal SSAs will have to be shown to unsupported by the evidence or (more strongly) disconfirmed by the evidence
- Note then that it makes a huge difference whether the empirical SSA claims that the move is possible, likely or necessary
- See uses above of 'raises the prospect' and 'could'

Mixed SSA



- Interested in SSAs which combine empirical and argumentative in the following way:
- Those who make a decision in respect of A will find it hard to resist approval of A_1 and this will be in large part because of the difficulty of showing a relevant difference between A and A_1 .

Qualifications



- Not considering
- Arguments against genetic engineering that see it as inherently wrong, maintaining for instance that interventions to change the germline or human genome cross a clear moral line
- We start from the presumption – common to many SSAs – that what is proposed *is* acceptable.
- Nor what Williams calls the *arbitrary result slippery slope argument*.
- This argument stems *not* from the concern that if A (which is agreed to be unproblematic) is allowed, then there will be a natural progression to a determinate B (which is agreed to be objectionable). Rather, the argument is related to the concern that, by adopting A, we step on a slippery slope that ends in a morally uncontrollable situation.
- An empirical version of SSA that relies on change in ethical preferences (a kind of moral corruption argument). In accepting A there are social and psychological changes that predispose viewing B as acceptable whereas previously it was seen as unacceptable.
- Arguments for and against the view that what is at the bottom of the slope is unacceptable – the moral status of eugenics

Empirical SSAs and agents of change



- Agents of change: one quote above uses impersonal ‘we’ whereas the other uses the passive voice – the door will be opened without specifying who will do so.
- One can imagine the agent might be the public, the legislature, or some legal or quasi-legal body charged with the monitoring and regulation of the relevant matters
- My experience as Chair of the Human Fertilization and Embryology Authority’s (HFEA) Statutory Approvals Committee (SAC) charged with approval of licenses of conditions for which pre-implantation genetic diagnosis (PGD) can be used.

Statutory test



- PGD may be licensed where the Committee is satisfied that
- Mode of inheritance: there is a *particular risk* that the embryo may have an abnormality; and
- Penetrance: there is a *significant risk* that a person with the abnormality will develop
- *A serious physical or mental disability*

PGD and SSA



- The process of PGD was created in the mid-1990's for parents to be able to detect anything potentially harmful for the future child, before the pregnancy began. It is the testing of embryos that were created through in vitro fertilization for three main things: genetic diseases (e. g. Huntington's disease), sex-linked genetic diseases (e. g. Duchenne Muscular Dystrophy), and chromosomal abnormalities (e. g. Down syndrome). In addition to the above, PGD *can* currently also be utilized for sex selection, savior siblings, and selection of eye color, hair color, and skin color. Scientists predict that in future years, PGD *will be able* to prevent disabilities and diseases that occur after birth, such as cancers, asthma, heart disease, and strokes. Further into the future, it is predicted that complex human characteristics, such as leanness, height, temperament, and intelligence level, *could be* determined through PGD.' Alexis Kim 'The Designer Baby Technology: Does Preimplantation Genetic Diagnosis Cause Discrimination Against the Disabled?' The Medically Modified Human blog February 2013 [emphasis added]

SAC decision making and SSA



- ‘Seriousness’ is evaluated, holistically, in terms of a range of considerations and thus more likely that each condition is *sui generis*
- Continuity of membership avoids a danger of inconsistency in judgments [Frank Dietrich (‘Moral Expertise and Democratic Legitimacy,’ p. 283) on the German use of committees to evaluate ‘grave’ (as the standard for permissible PGD) where different committees might deliver different judgments on the same (or the same kind of) condition]
- On the other hand a continuing membership might have a collective memory whereby closely related conditions are viewed as close enough (indistinguishable) to mean that a favourable decision in respect of a previous condition warrants a similar judgment in a later one.
- Yet, each condition is considered on its own merits and no doctrine of *stare decisis*.
- The doctrine of precedent may be justified in jurisprudence by the thought that an injustice is done to someone who is not treated at law in the same way as someone else
- The legal principle enjoins that similar cases should be treated in the same way. But in the present context the alleged problem is of slightly different cases being treated as the same.
- Risk is one of inconsistency – but not here one of injustice