

EUGENIC UNDERGROUNDS: STEM CELLS AND HUMAN FUTURES

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Recently, human embryonic stem cells have become a high profile locus around which swarm a host of questions and problems regarding the status of biological life. What is biological life? When does it 'start,' and when does it 'end?' Who has jurisdiction over it? What claims can be made regarding its disposition? These are not new questions by any means, but human embryonic stem cells (hESCs) are relatively new research objects, and are fomenting novel attempts to address these questions. They were first identified in mammals in the late 1970s, and the human variety was successfully cultured in the 1990s. In many ways, hESCs were made visible due to a series of remarkable transitions in the study of life. Advances at the molecular and cellular level have produced new tools and techniques, and have coalesced into institutional forms like the discipline of molecular biology, and international enterprises like the Human Genome Project. This set of changes is setting the stage for a new kind of medicine, *regenerative medicine*. Regenerative medicine differs from older forms of medicine: curative medicine uses techniques such as surgery, chemo- or radiation therapies, prosthetics and organ transplantation, and/or pharmacological interventions to isolate and destroy the lesion or infection that is the underlying cause of the pathology, or to mechanically or molecularly replicate lost functionality. Regenerative medicine, on the other hand, constructs *replacement parts*, such as cells, tissues and organs, which substitute for the malfunctioning biological system. These replacement parts are formed from human (and non-human) biological precursors, for example embryonic stem cells, which can be created from a person's own somatic cells and a donor egg cell (through a process known as nuclear transfer or NT). They can also be amalgams of biological and mechanical parts. Thus cell therapies from NT result in cells that are created *in vitro*, but are genetically identical to the person needing cell replacement therapy.

HESC research has become a public locus precisely because the possible therapeutic developments would come from embryonic precursors. In other words, it is the research material, not just the aims or outcomes of the science that is controversial. Some argue that regenerative medicine, and hESC research in particular, is provoking a rearticulation of the category of the human. This is evidenced by the sheer volume of writing about things such as 'dignity' and 'posthumanism.' However, I argue that while hESC research is opening up difficult questions, it is not altering the category of the human. Regenerative medicine is coming into focus against a background of actors,

including biomedical research institutions, patient advocacy organisations, government policy-makers, biotech and pharma entrepreneurs, and the various opponents and sceptics of possible biotechnological futures. I refer to this background as the *field of biotechnology*. The category of the human has become a central site for understanding the potential inclusions and exclusions that come with 'our posthuman futures', and I will argue that the ways it is used by different actors in the debates over human stem cell research is articulated through the logics of the field of biotechnology. Yet the 'human' in our possible posthuman futures is never fully overwritten by this field. To make this clear, I will use the work of Dipesh Chakrabarty, and his interpretation of Marxian historiography, to help outline how the category of the human is both dependent on, yet simultaneously outside of, the field of biotechnology. Chakrabarty's work provides analytic tools to think about the predicaments that human stem cell research is provoking. For this essay, I will focus on one emerging assemblage of questions and problems that falls under the heading of 'liberal eugenics'. Liberal eugenics represents a way of talking about human enhancements through technoscientific means that may avoid some of the coercions of past authoritarian forms of biological selection, but cannot avoid relying on new zones of exclusion.

STEM CELL POLITICS

The development of hESC research in the United States since the late 1990s has provoked wide-ranging debates over many issues, such as the public funding of embryo experimentation and the development of 'patient-specific' stem cell lines through NT. There have been a wide variety of responses, from uneasiness to celebration, about this technology from different groups across the political spectrum. In August 2001, President George W. Bush announced his administration's policy regarding federal funding of hESC research. This announcement in turn helped galvanise individual state-level stem cell movements, including California's successful Proposition 71 campaign, although the material benefits (in terms of therapeutic agents) of hESC research are basically non-existent. Proposition 71, which passed in November 2004 with nearly sixty percent public approval, secured public funding for stem cell research through the selling of three billion dollars worth of state general obligation bonds. Researchers working on stem cells are to be the recipients of this revenue, through mechanisms modelled after the National Institutes of Health (NIH). Proposition 71 also altered California's constitution, creating the California Institute for Regenerative Medicine (CIRM), which would be the organizational entity in charge of the stem cell revenue. The Independent Citizens Oversight Committee (ICOC) is the oversight body of the CIRM, a 29 member committee comprised of individuals from specific institutions or patient advocacy groups, and appointed by state officials. Internationally, hESC and NT research occurs within a patchwork of regulation and free enterprise zones of 'offshore' biomedical science. As I will

make clear at the end of this essay, these offshore worlds play an important role for liberal eugenic imaginations.

How should we make sense of this proliferation of stem cell politics? Is this just the latest biomedical fad, or hype produced by biotech companies? Or is it the shrill rhetoric of anti-abortion or neoconservative groups seeking another platform to expand their movement? We should, on the one hand, pay attention to the ways in which some critical analyses of biotechnology can unwittingly reproduce the logics by which biotechnology becomes an ever-more commonplace element in our daily lives. In other words, those who desire to return to some authentic, pre-biotechnological past, or some other nostalgic reflex, are symptomatic of the changes being wrought by biotechnology. That is, this reflex is a historicising move itself predicated by deeper structural changes. On the other hand, these structural changes cannot be simply rejected as the newest incarnation of instrumental rationality's grip over human existence, or the production of a completely dominated future. As changes in the deep structure of 'life itself,' biotechnology is provoking many kinds of attachments, including affective and corporeal, that require attention and scrutiny.

One prominent example involves the research materials used for hESC experiments. In the United States and elsewhere, there are live debates over the use of embryos, whether 'surplus' (produced in *in vitro* fertilization clinics) or 'fresh' (created through donated gametes and/or NT) in biomedical research. The pivot that these debates turn on is the status of the human embryo. Is the early embryo a human being or not? I do not propose to answer that vexing question; instead, I am interested in excavating the social relations that have made this an important political question for different groups. For example, those who oppose the disaggregation of human embryos for this research argue that the embryo is a complete human being with all the potential capacities and subsequent rights of a fully developed human.¹ The formation of the human embryonic genome is a significant marker in this narrative, for even though the early human embryo is not corporally human (it has not differentiated from a single cell) it is genetically human. Thus, the argument goes, it is a human being. If all other variables are controlled, or in other words, it is not purposefully destroyed, and development proceeds without hindrance or malfunction, this embryo will become corporally human. The only morally permissible course of action, for those who push this argument, is to wait for the human embryo to be sufficiently developed so that we may ask its permission to experiment upon it. This, of course, is a ruse, since by that time the embryo has become a person, and it would be abhorrent to experiment upon that person.

Some of those who seek to defend human embryo research will make a distinction between the categories of 'human' and 'person.' A person is a unique entity, which has special rights and protections. Personhood can also be conceived of as a process. While all entities that are classified as *homo sapiens* are human, perhaps not all of them are the same kinds of

1. For a forceful statement of this position see a recent essay by Robert George, 'Human Cloning and Embryo Research: The 2003 John J. Conley Lecture on Medical Ethics', *Theoretical Medicine*, 25 (2004): 3-20.

persons.² For example, individual humans who are unable to take care of the basic activities of daily life on an autonomous basis, begin to move into slightly different categories; this is reflected in human subjects' protections for 'special populations' including children, the elderly, and the grievously ill. The individuals in these categories may be unable to comprehend the ramifications to their being compromised because of their participation in clinical trials for experimental drugs, for example.

In this example, both supporters and opponents of hESC research orient themselves around the question of what conditions constitute an appropriate human life. I will call those who defend the embryo as human from conception as making arguments for the *genetically human*. This is opposed by those who see personhood as a process, with changes and transformations over time, or with limiting conditions. I will call this set of arguments the *socially human*. This is of course a rather simplistic reduction as there are multiple definitions of what the category of the human is or stands for. This reduction, however, mirrors public discourse in the United States and elsewhere, and here I am only pointing out that this move can have unforeseen consequences, namely silencing other perspectives on the category of the human.

One objection could be that these two sides are using different definitions of what is human. An easy dismissal is that those who oppose hESC research are anti-modern, or desire to replace science with metaphysics. However, those who argue for the genetically human are clearly not anti-science. This is apparent both from their rhetoric, as well as the logic of their arguments. How would it be possible to defend life at a genetic level without recourse to molecular biology? It would not make any sense even to speak of genes as having importance in deciding who or what gets to count as human. In the above example, the genetically human argument redeploys scientific discourse against the socially human position. Those who argue for the socially human employ diverse sets of arguments. Like the genetically human arguments, these positions will often take the stages of human genetics and developmental biology as a presupposition; that is, the scientific facts that come out of the contemporary biosciences serve as the starting point for policy or guidance. As one North American stem cell researcher put it: 'Good ethics begins with good science'.³

This mutual positioning around a molecular biological version of life can be used as an analytic wedge for opening up perspectives on the relationships between biotechnology and what gets called 'the category of the human'. What is interesting here is that even though these two positions are bitterly opposed at the level of political strategy and policy formation, they share a common set of background assumptions. While initially appearing antagonistic, the genetically and socially human are deeply intertwined at another level, namely the field of biotechnology. The field of biotechnology is structured by the discourses of modern biological and biomedical sciences, as well as the humans (supporters, opponents, beneficiaries, and so on), non-human organisms, and non-living objects around which these

2. From a wide variety of perspectives see: Lisa Adkins, 'The New Economy, Property and Personhood', *Theory, Culture & Society*, 22 (2005): 111-130; Louis Guenin, 'The Set of Embryo Subjects', *Nature Biotechnology*, 21 (2003): 482-483; Janine Holc, 'The Purest Democrat: Fetal Citizenship and Subjectivity in the Construction of Democracy in Poland', *Signs: Journal of Women in Culture and Society*, 29 (2004): 755-782.

3. For an overview of the North American scene see: Andrea Bonnicksen, *Crafting a Cloning Policy: From Dolly to Stem Cells*, Washington, D.C., Georgetown University Press, 2002; John Fletcher, 'The Stem Cell Debate in Historical Context', in S. Holland, K. Lebacqz, and L. Zoloth (eds), *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy*, Cambridge, The MIT Press, 2001, pp27-34; Suzanne Holland, Karen Lebacqz, and Laurie Zoloth (eds), *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy*, Cambridge, The MIT Press, 2001; Glenn McGee (ed), *The Human Cloning Debate*, Berkeley, Beverly Hills Books, 1998.

discourses circulate in the contemporary moment. This includes knowledge-producing institutions, government agencies, health care organisations, the biotechnology and pharmaceutical industries, patient advocacy movements and their allies, religious institutions, civil society organisations concerned with biomedicine and biotechnology, and all the support structures (law firms, finance institutions, research material supply houses and so on). This field is fundamentally open-ended, and in the process of unfolding; that is, the dilemmas that arise within this field, such as the use of human embryos in scientific research, serve as the basis to activate and incorporate different social worlds. As stem cell politics spread, more groups of actors are included.

ABSTRACT LABOUR AND CONCRETE LIFE

How can we begin to sort out this complicated field of activity? I want to turn to an essay by Dipesh Chakrabarty entitled “Two Histories of Capital”⁴ as a tentative step in thinking about biotechnology. In this essay, Chakrabarty presents a way of thinking about historicism that he draws from a reading of Marx’s later work. Marx remarked that one of the amazing aspects of capital was its ability to rewrite history from its vantage point. That is, Marx claimed that bourgeois political economists saw pre-capitalist forms of production and exchange as containing the embryonic forms of capitalism; once capital became the dominant mode of production, history become the progressive elaboration of an eternal capitalist logic.⁵ Within this elaboration is the unfolded concept of abstract labour.

According to Marx’s labour theory of value, abstract labour is the value-producing activity that is common to all forms of labour in a particular society.⁶ Chakrabarty claims that Marx’s concept of abstract labour has a two-fold function: description and critique.⁷ As critique, abstract labour is the necessary starting point to think about the contradictions of capital. This is because abstract labour is what the logic of capital presupposes in order to produce surplus value. Capitalist production converts abstract labour into surplus value through mechanisation of the production process; that is, capitalism, ‘transfers the motive force of production from the human or the animal to the machine, from living to dead labor’.⁸ Thus the force that animates abstract labour moves something vital from the *living* human or animal into the *dead* machines of the factory. The secret of surplus value lies within this process.

However, this is not the end of the story. Chakrabarty argues Marx thought of the abstraction of labour from the worker as leaving some kind of trace or remainder; a trace that Marx referred to as ‘life’.⁹ For Marx, life refers to the vital forces of the body, and the metabolism of the organic body with a wider natural world.¹⁰ Chakrabarty connects this notion of life with vitalist understandings of life that were being debated at that time.¹¹ Life is what actuates living labour, and life can serve as the foundation for resistance to the dominance of capital: “The “living” quality of the labor ensures that

4. In Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference*, Princeton, Princeton University Press, 2000.

5. *Ibid.*, p63.

6. Duncan Foley, *Understanding Capital: Marx’s Economic Theory*, Cambridge, Harvard University Press, 1986.

7. Chakrabarty, *op. cit.*, p58.

8. *Ibid.*, p57.

9. *Ibid.*, p60.

10. John Bellamy Foster, *Marx’s Ecology: Materialism and Nature*, New York, Monthly Review Press, 2000.

11. Chakrabarty, *op. cit.*, p60.

the capitalist has not bought a fixed quantum of labor but rather a variable “capacity for labor,” and being “living” is what makes this labor a source of resistance to capitalist abstraction’.¹² Thus capital, which presupposes abstract labour for its existence, is faced with ‘life’ once the value of labour has been converted into the value which is transferred to the commodity, and the surplus value which is transferred to the capitalist.

12. Ibid., p61.

Perhaps we can update Marx’s understanding of life with what Nikolas Rose refers to as ‘life itself’.¹³ The ‘humanism’ of the early twenty-first century looks very different from Marx’s nineteenth century version. Knowledge about the human body has, over the twentieth century, become one of the predominant ways through which we know and control ourselves.¹⁴ Rose argues that it is the techniques of biomedicine and biotechnology, not bioethics or moral philosophy, that are reformulating contemporary humanism. That is, rather than the ‘humanistic’ disciplines articulating who we are, it is the ensembles of technical practices that are leading the way. It is the development and implementation of these techniques, like the derivation of hESCs, that is creating knowledge, and anxiety, and more importantly, *consolidating* the category of the human around a set of concerns and questions.

13. Nikolas Rose, “The Politics of “Life Itself””, *Theory, Culture & Society*, 18 (2001): 1-30.

14. Adele Clarke, Laura Mamo, Janet Shim, Jennifer Fishman, and Jennifer Fosket, ‘Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine’, *American Sociological Review*, 68 (2003): 161-94.

For Marx, capital operates as the spectral presence that converts living labour into dead machinery. Biotechnology is not simply the inverse of this process, or the conversion of ostensibly dead research materials into living therapies. Rather, biotechnology is able to derive a surplus, a ‘biovalue,’ or, ‘the yield of vitality produced by the biotechnical reformulation of living processes’.¹⁵ The logic of biotechnology abstracts ‘living processes’ out of its biological substrate, and migrates those processes *in vitro* or *in silico*. These processes can then be scaled up to appropriate manufacturing levels for different sized populations. This is not the expropriation of living labour from life, but the reproduction of life in *ex vivo* environments. The physiological processes that constitute human life can now be duplicated in non-human systems (‘chimeric’ organisms). Human biology is becoming ‘modular’ in continuously expanding formats.

15. Catherine Waldby, ‘Stem Cells, Tissue Cultures and the Production of Biovalue’, *Health*, 6 (2002): 305-323.

This transformation has raised alarm for many groups of people. If ‘living processes’ are abstracted out of life, what happens to the contents of the category of the human? Some groups are concerned that these biotechnological changes will undermine the dignity of the human being, and lead to a devaluing of human life. This argument most often appears in conjunction with a genetically human conception of life. Others are concerned that a different kind of devaluing will occur; namely, certain groups of people will be selectively devalued. This raises the spectre of a eugenic future, and is usually proffered by those with a stake in the socially human definition. For either argument, the consolidation of the category of the human is what is at stake.

Chakrabarty’s argument may help us to think about this predicament. Returning to Marx for a moment, Chakrabarty wants us to think about ways of writing history that do not fall victim to the logic of capital. He argues

16. Chakrabarty, op. cit., p63.

17. Ibid., p63.

18. Francis Fukuyama, *The End of History and the Last Man*, New York, The Free Press, 1992; Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution*, New York, Farrar, Straus and Giroux, 2003.

19. Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, New York, Pantheon Books, 1980, p81.

20. Chakrabarty, op. cit., p64.

21. Ibid., p64.

that there are two kinds of history that emerge out of Marx's writing. The first he calls 'History 1,' which are histories told from the vantage point of capital.¹⁶ History 1 is the description of historical processes and dynamics that posit the general unfolding and expansion of capitalism in the world. This is the dominant form of historical narrative that underpins Enlightenment historicism; that is, History 1 is the retelling of social development that makes it possible to understand the linear, unidirectional triumph of secular reason and science over metaphysical speculation and religious doctrine. The form of this narrative therefore simultaneously explicates both how the *present* came to be, as well as the *past* out of which emerged the present. This is what Chakrabarty means when he says History 1 is, 'a past posited by capital itself as its precondition'.¹⁷ The past that existed prior to capitalism (or secular reason) become 'pre-capitalist' (or a time dominated by 'metaphysical belief' rather than scientific knowledge about the world.)

Within the social sciences, this history is best demonstrated by the modernisation thesis, which argues that the developing nations of the world could look to the West and see an image of their own future. The deepening and broadening of liberal capitalism is inevitable, and will eventually swallow up and assimilate all forms of cultural difference. This kind of history was deployed by Francis Fukuyama, now a critic of hESC research, in his 'end of history' thesis.¹⁸ Biotechnology has a History 1. This usually takes the form of a triumphalist narrative of scientific knowledge over obstacles, both internal and external. In terms of hESC research, this narrative offers the possibility of curing and preventing various diseases and conditions.

Chakrabarty does not seek to throw out or replace History 1 with a better, or more accurate, or more accommodating or 'multicultural' History 1. Neither does he argue that we must resign ourselves to its total domination. Rather, there exist what Foucault called 'subjugated knowledges,' or forms of historical understandings and narratives that are ignored, excluded, and/or silenced under dominant analytical frames.¹⁹ Chakrabarty argues that Marx had already pointed out the existence of these subjugated knowledges. Chakrabarty terms these narratives 'History 2s,' which consist of tropes and relations that are 'outside' the logic of capital. History 2s are accounts of the processes that 'do not contribute to the reproduction of the logic of capital'.²⁰ Chakrabarty claims that Marx 'surprises' the unsuspecting reader with two examples, money and the commodity, as examples of History 2 that 'did not necessarily look forward to capital'.²¹ They are dangerous objects for capital because, while they are vitally important, indeed necessary for capital's growth and expansion, they come from outside of the historical logic of capitalism. For example, capital 'encounters' money, which existed historically prior to capitalist social relations, and provisionally incorporates money within its historical unfolding: 'These relations [capital and money] could be central to capital's self-reproduction, and yet it is also possible for them to be oriented to structures that do not contribute to such reproduction. History 2s are thus not pasts separate from capital; they inhere in capital yet interrupt and punctuate

the run of capital's own logic'.²² What are the relationships between History 1 and History 2? How does History 2 undermine the logic of History 1?

22. Ibid., p64.

Chakrabarty argues that while Marx did point out the existence of subjugated knowledges (or History 2s), he remains deeply tied up with the concept of unproductive labour. Chakrabarty uses Marx's famous example of the piano maker and piano player that marks the difference between *productive labor*, or labour that reproduces capital (the piano maker), and *unproductive labor* that does not, however useful it may be for the reproduction process (the piano player). Chakrabarty tweaks Marx for missing the import of music, and its potential to undermine capitalist reproduction, by equating it with the delusions of an unhinged mind: 'This equation, however, between music and a madman's delusion is baleful. It is what hides from view what Marx himself has helped us to see: histories that capital anywhere - even in the West - encounters as its antecedents, which do not belong to its life process'.²³ Rather than theorizing music making as unproductive labour, music can also be understood as having different histories, that both contribute to the reproduction of capital, and disrupt its logic. Music and other forms of expression have at different times disrupted instrumental rationality, oppressive structures of authority and capitalist discipline.²⁴ Under a capitalist mode of production, the disruptive potential of music makes it a complicated commodity.

23. Ibid., p69.

How would this analytic structure of History 1 and 2 map onto the field of biotechnology? This is a complicated set of relationships. Biotechnology does not encounter the human in an analogous way that capital encounters money. The category of the human, as I am using it now, operates as an organising principle, even though the contents of this category change over time. Second, while this category is clearly historically prior to biotechnology, the field of biotechnology does not represent a unified ontological entity like capital did for Marx. It is rather a set of connections that have effects such as structuring discourses. These discourses (such as those of the genetically and socially human) posit the category of the human to be a coherent unity. Finally, there is the sticky question of human agency. Marx claimed that most humans were not aware of the power of capital to structure social relations, and that our behaviour in the market, while appearing spontaneous and random, was actually dictated by the laws of capital. In this sense, biotechnology stands in an analogous position as capital in terms of structuring human agency. That is, while the field of biotechnology is precisely built up by the intentional work of many actors, its effects are not controlled by those actors. For example, the genetically human position I talked about earlier uses the concepts of developmental biology as ways to prevent certain forms of that science from taking shape. However, biotechnology does not come to dominate us like capital. Rather, and this is the difficult part, the field of biotechnology produces biovalue, a surplus value that is the result of amplifying processes once located only in the form of the living.²⁵

24. For example, see Tia DeNora, *After Adorno: Rethinking Music Sociology*, Cambridge, Cambridge University Press, 2003; Ron Eyerman and Andrew Jamison, *Music and Social Movements: Mobilizing Traditions in the Twentieth Century*, Cambridge, Cambridge University Press, 1998; Mark Mattern, *Acting in Concert: Music, Community, and Political Action*, New Brunswick, Rutgers University Press, 1998; Regula Quershi, *Music and Marx: Ideas, Practice, Politics*, Garland Publishers, New York, 2002.

25. Waldby, op. cit.

Rather than positioning this consolidating category as an outside or in opposition to the logic of biotechnology, Chakrabarty's History 2 is helpful

for thinking about the category of the human as simultaneously within the field of biotechnology, as its conditions of possibility, and outside, as never fully exhausted by that field. First, let me explain how Chakrabarty deals with this difficulty, and then I will make this dual positioning clearer through the example of liberal eugenics.

26. Chakrabarty, *op. cit.*, p70.

In the context of Marx's work, Chakrabarty claims: 'No historical form of capital, however global its reach, can ever be a universal'.²⁶ That is, any particular instance of capitalist development may appear to stand in for the universal development of capitalism (History 1); however, the particular instance will always be refracted through the local historical conditions under scrutiny (History 2). This does not mean, as Chakrabarty points out, that the universal disappears; rather, the opposite is true. The critique of capital must take capital, as a universal, as its object: 'Grasping the category "capital" entails grasping its universal constitution'.²⁷ However, in any particular empirical example, capital's universal constitution is made possible by the local historical context.

27. *Ibid.*, p70.

Grasping the category 'human' also entails grasping its universal aspect. Here, the universality of the human I wish to highlight is its biological modularity. The field of biotechnology relies on this material effect: that is, the affective power of hESC research lies within the techniques of regenerative medicine, where single donor cells can be repaired, scaled up into tissues, and implanted back into the donor. This autologous system may be a biological universal. Its logic certainly is. The techniques of molecular biology, the field of biotechnology itself, is in the process of revealing this universal. This is a kind of History 1. In other words, it is not difficult to imagine a future in which regenerative medicine is as common as antibiotics or heart bypass surgery, whether or not that future actually ever materialises.

In the case of hESC research, history 2 might ask: 'How is this category of the human actually lived?' I am not asking a phenomenological question. I am asking how is regenerative medicine taking shape, being dependent on a specific articulation of the category of the human. What is revealed is a patchwork: regenerative medicine is taking on different forms in different places. It is in the process of formation. This scale is across the globe, as well as within nations, and within focal institutions. This is Chakrabarty's punch line: capital brings an 'empty place holder' to history, universal history, which is always undermined by local History 2s. The debates between the conceptions of what is human, my sloppy distinction between genetically and socially human, indicate the frictions of this formation. The existence of these debates marks the generativity of the category of the human. In other words, if this category were completely subsumed by the field of biotechnology, there would be no debate at all.

STEM CELLS AND LIBERAL EUGENICS

The questions that are being provoked by hESC research lead not to a disappearance of the category of the human, but instead mark a new

chapter in the consolidation of this category. Of course, this is not a new phenomenon. Nearly a century ago, advances in statistical analyses opened up new vistas in understanding the empirical world. In the late nineteenth century, the power of these analyses were brought to bear on questions of human biological difference, one offshoot of which led to the flowering of the eugenics movement whose early proponents linked arguments for improved human reproduction to projects for social reformulation. The legitimacy of these arguments was shattered by its association with Nazi ideology, and eugenics, as a scientific and social project, retreated from mainstream society to the fringes.

The field of biotechnology continues to reveal the plasticity and modularity of biological life, albeit within certain parameters. However, these parameters do not serve as ‘fettters,’ in Marx’s language, or absolute blocks that must be overcome, but rather ‘speed bumps’²⁸ that are a result of the logics of the production of biovalue.²⁹ Speed bumps arise in the contradiction within any system of production. For example, Kaushik Sunder Rajan points out that in the production, circulation and consumption of genomic information, speed bumps, such as intellectual property regimes, simultaneously constrain and empower the capacities of actors to generate value. Speed bumps are not ‘externalities’ which impinge upon the functioning of the system, but indicators of contestation within the system of genomic data itself.³⁰ Rajan’s focus is on information; let me shift the focus to the intersection between biotechnological advancements and the human body. Consider the transformation of eugenics from fringe ideology into its recent incarnation as ‘liberal eugenics’.

Liberal eugenics, persuasively argued by Nicholas Agar, differs from older, non-liberal (or authoritarian) forms of eugenics primarily in that the focus is on the individual’s decision-making capability.³¹ The state, or other large corporate actors, is disallowed from using coercive tactics regarding the individual’s reproductive choices. These entities can regulate the use of the biotechnologies that underlie liberal eugenics, such as genetic diagnostic and enhancement technologies, but they are not allowed to mandate or prohibit their usage. This choice falls to individuals and couples, and other potential parents. Authoritarian eugenics was overseen by the state, and played a major role in the imagination and implementation of the nation. The transition to liberal eugenics marks the attenuation of the state, and the unfolding of the field of biotechnology, within which the state is one actor among many. Authoritarian eugenics were applied to perceived marginal populations as coercive ‘therapeutic’ solutions. Liberal eugenics will be applied first by the elite to themselves, or those with the material resources to make the choices that affirm liberal eugenics. Agar concludes that ‘underground’ (illicit or morally and/or technically questionable practices) biotechnological intervention in the human genome will be the driving force across the fraught terrain of human experimentation³² - that is, the kinds of genetic interventions that defenders of the genetically human perspective fear will

28. Kaushik Sunder Rajan, ‘Genomic Capital: Public Cultures and Market Logics of Corporate Biotechnology’, *Science as Culture*, 12 (2003), 87-121.

29. Waldby, op. cit.

30. Ibid., p114.

31. Nicholas Agar, *Liberal Eugenics: In Defence of Human Enhancement*, Malden, Blackwell Publishing, 2004.

32. Ibid., p174.

inevitably happen. Juxtaposing Nazi experimentation on concentration camp inmates with early organ transplantation, he concludes that the latter should be our frame of reference for thinking about those who may conduct genetic enhancements.³³

33. *Ibid.*, p175.

Agar's defence of liberal eugenics tracks along a History 1 course. That is, in Agar's text, History 1 is the tale of the inevitable development of enhancement techniques that is told from the vantage point of the field of biotechnology. Enhancements to human genetic make up are inevitable, and will be developed somewhere. Agar's pragmatic optimism reveals the anticipatory instinct that history will be rewritten from the vantage point of biotechnology. But there is also, as Chakrabarty would remind us, History 2s that are present. Agar reveals a possible starting point for History 2, as he closes his book with examples from the difficult histories of human experimentation. He argues that it is 'underground experimentation' that will drive genetic enhancement technologies forward. However, much like Marx quickly passes over the multiple histories of music in his explication of productive labour, Agar only briefly mentions these 'eugenic undergrounds,' or non-Western, offshore worlds of entrepreneurial science. While it is unclear exactly what kinds of experimentation would take place in these eugenic undergrounds, they would be places where human cloning experimentation, and the 'ethically impossible passage' of human experimentation, will occur.³⁴

34. *Ibid.*, p172-73.

How would these eugenic undergrounds put pressure on the triumphalist narrative of biotechnology? First, they serve as the preconditions of the field of biotechnology. They arise co-terminously with the global institutions of biotechnology and regenerative medicine, and utilize the same technical practices and objects. However, these offshore laboratories and clinics will conduct the experiments prohibited in the West since, Agar claims, the governments in charge of these underground spaces will either turn a blind eye, or will be incapable of regulating this entrepreneurial science. Global elites will be willing to pay for the results if the experiments are a success.³⁵ Neither completely inside nor totally outside of the field of biotechnology, these eugenic undergrounds both make the narrative of liberal eugenics possible (the staging ground through the 'ethically impossible passage'), and haunt these narratives with the spectres of human experimentation. Second, by virtue of being outside of the West, these eugenic undergrounds will stand in uneasy relationships with Western biotechnology. Agar assumes that these labs and clinics will be outside of Western canons of law and oversight. If an offshore lab were to create a breakthrough in human cloning techniques, it would generate not only moral problems, but political and commercial difficulties as well. Questions would arise about the patentability of processes and objects derived from human cloning experiments, and if these inventions would be recognized in the United States, for example.³⁶ It is unclear what responses a breakthrough of this kind would generate in legislative institutions around the world. Finally, the offshore worlds of biotechnology will play

35. *Ibid.*, p172.

36. For example, North American developmental biologist Stuart Newman attempted to get a patent on a human-animal chimera he created for the purposes of raising this issue as a political problem. The United States Patent and Trademark Office denied his claim. Stuart Newman, 'Nature, Progress, and Stephen Jay Gould's Biopolitics', *Rethinking Marxism*, 15 (2003): 479-496.

a part in the reformulation of the bioethical discourses that are in this moment still open for debate. If Nicholas Rose and others are correct, then biotechnological techniques taking shape in eugenic undergrounds would be a driving force of our reformulated humanism.³⁷ Yet the effects of these bioethical discourses around the world would be open-ended. It is unclear how these discourses would be understood and interpreted within global, national and local institutions.

37. Rose, *op. cit.*

History 2s interrupt dominant narratives in many often unsettling ways. Agar does not provide us with any sort of compass to navigate the eugenic undergrounds necessary for biotechnological advancement. These undergrounds present us with both analytical and political questions that require attention. Taking up these questions need not require either a rejection of the status of the human, as is common in much anti-posthumanist writing, or a full-fledged celebration over our transhumanist futures. As I have shown, both of these positions operate within the logic of biotechnology. The worlds of underground human experimentation interrupt these narratives, and reveal the social conditions under which biotechnology unfolds its possible histories.