

Politics of life itself and the future of medical practices: dialogues with Nikolas Rose (Part 3)*

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This is the third and last interview with Nikolas Rose which we sought to explore important aspects of his wide academic production. At the first interview¹ we explore aspects about State, Public Policy and Health and their relation with the concept of governmentality. On the second² on we discussed the role of psy's knowledge and practices in the government of conduct. In this last one we had the opportunities to reflect with Rose on his current researches about the transformations of life sciences, biomedicine, neurosciences relating those changes with the clinical practices and their impact upon the Health Systems.

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POLITICS OF LIFE ITSELF AND A NEW STYLE OF THOUGHT

After affirming that “the truth discourse of contemporary genomics no longer sees genes as the hidden entities that determine us” and that new technologies had open “the gene” to knowledge and technique at the molecular level”, you affirm that we are entering a new ‘style of thought’ (ways to think, see and intervene) where the molecularization of vitality is central to it, that at this molecular level life itself has become open to politics, that biology is not destiny but opportunity. Can you detail this idea for us?

Well, there are two parts to that question. The first part is about determinism and biological determinism. So let me start by saying a little bit about that. I suppose genetics is the clearest example of the retreat of biological determinism. Genetic determinism, the idea that the complement of genes with which an individual is born shapes inescapably their capacities, both physical and mental, has if not completely disappeared at least become significantly weakened. We know that this idea that the gene is like a single unit of DNA and all the genes are stretched out like beads on a string on the chromosomes and that each gene determines a particular protein which creates a particular characteristic. We know that this idea has been disproved by developments in genomics following the human genome project. So now we know that humans do not have 100 000 or perhaps even 300 000 genes that were hypothesized. They have about 20 to 25 000 coding sequences, and that these sequences are spread across many parts of the genome, they can be read in many different ways and what’s crucial is not so much the genes, but how they are activated. Secondly, we know, and this is now becoming a cliché of what’s called epigenetics, we know that what’s crucial is not the DNA that you are born with, but how this is activated or de-activated across a lifetime in a process called methylation which enables the DNA sequence to produce its effects. We know that these epigenetic processes are shaped in all sorts of ways by the relationship between the organism and its milieu. In fact, developmental geneticists have known this for many decades, but now this has become a much more salient way of trying to understand how genes are expressed in organisms across a lifetime. All these and many other developments suggest that genetic determinism, as a general programme for understanding not only biological organisms but their destiny is no longer the style of thought that characterises contemporary genetics.

So that’s the first thing, and I think that one can see this move away from biology as destiny to biology as opportunity in a whole series of other areas. For instance, in the arguments about stem cells, for instance in the arguments about the capacity to transplant organs, the modulation of reproductive capacities by all sorts of new technologies and so on.

My argument has been, which I spelt out quite a lot of detail in that book *The Politics of Life Itself*³, rather than biology being destiny, biology is opportunity. In fact the more biological something is, the more malleable it is, at least that’s a cliché, but suggests a kind of way of thinking. Consider for instance the recent successful birth of a child through the transplant of a womb from a friend to a woman who did not have the capacity to reproduce. Consider face transplants, consider the use of drugs to modulate all sorts of human capacities, whether it’s Viagra, whether it’s the so called cognitive enhancers. All these things suggest that the more we know about the biological basis of any particular characteristic, the more we can reverse engineer it and work out the molecular or biological underpinnings of that characteristic. Or at least that is the dream – in principle the more we know, the more we are able to intervene. The political debates that this gives rise to are well known - disputes about enhancement, debates about reproductive technologies, disputes about the ethics of life extension. Such disputes about the organisation of vitality itself become central to contemporary politics; euthanasia, the maintenance of the life of babies born with severe disabilities, there are multiple areas where one sees this.

It is not only that biology is now conceived as opportunity, but around those opportunities a whole series of new kinds of political disputes have formed. These disputes, this politics of life is intrinsically intertwined with the economics of life because the opening up of these vital processes to intervention has also become a field for rather intense capitalisation by the pharmaceutical industries, the medical devices industries and so on. So there is a new intertwining between forms of knowledge and techniques of intervention, modes of capitalisation, political and ethical disputes, an intriguing new field for analysis.

SOMATIC AND PSYCHOLOGICAL INDIVIDUALS

What do you mean in your studies by 'somatic individuals'? Is the psychological individual disappearing in this new bio-politics of life? What do you consider as the main pathways to reinvent ourselves today: the psy or the molecular approaches?

I used the term somatic individuals to try to point to the ways in which human beings are increasingly engaged with understanding and managing their soma, their bodies and their corporeal existence. Of course, human beings have long tried to manage their fitness, control their diet, all sorts of regimes for improving their physical status and their forms of life - we can see this going back at least to the Greeks. What I was trying to point to in this idea of the somatic individual is the way in which, in least in part, the management of our corporeal existence has become one of the central ethical demands of our present, no longer a matter of choice for the elite or those adhering to a particular cult of the body, but one of the central ways in which everyone is obliged to manage our everyday lives and existence in terms of diet, in terms of alcohol intake, in terms of exercise, in terms of the use of drugs of various sorts to modulate bodily processes, whether they are the statins to reduce the risk of heart attack or stroke or the drugs to manage our sexuality as in Viagra. This has become a key ethical demand on us, investing the ways we frame our existence and manage our everyday lives with concerns – framed in the language of experts of various sorts - about the maintenance and management of our corporeal selves.

It would be tempting to say the decline of religious ethics and the rise of somatic ethics are linked in some way: one does certainly see the rise of these somatic practices of the self in those areas of the world where religious beliefs are declining or becoming less salient for managing everyday existence. Is the idea of psychological individuality disappearing? No, I don't think it is disappearing, I think it's being supplemented by these other ways of thinking about managing our bodies and our brains. This is the argument that I made in that book *Neuro4*: it is not that human beings have become brains, it is that human beings have brains, they can understand their brains, they can work on their brains, they can manage their brains. The managing of one's neuro-biological existence becomes part of managing one's somatic existence. But the person who does this managing is still understood in terms of a set of psychological characteristics, and hence open to psychological interventions which are designed to change the ways in which they manage their biological and neuro-biological capacities.

A NEW RELATION BETWEEN THE SOCIAL SCIENCES AND LIFE SCIENCES

You defend an idea in your last works that `no longer are social theories thought progressive by virtue of their distance from the biological. Indeed the reverse assumption is common – it seems that ‘constructivism’ is passé’, the linguistic turn has reached a dead end and a rhetoric of materiality is almost obligatory`. Can you give us your arguments for this provocative assertion, and why you think this changed style of thought offer new opportunities for a new relationship between the human sciences and the life sciences?

Well at one level the argument that reference to biology is no longer forbidden in so called progressive social theories, is just an empirical fact. You can see that in the new feminist materialisms that aim to take the biological organisation of the human being seriously. You can see it in the rise of the so called ‘affect theories’, which look to neuroscience, or a certain version of neuroscience, to understand the role of non-rational and non-conscious forces in shaping human collectivities and human aspirations, human decisions and human desires. So at one level it is simply an observation on the way in which progressive social theories, or theories that consider themselves to be progressive, are developing. On the other hand, I have argued that there are indeed opportunities for the human sciences in the changing styles of thought within the life sciences themselves. The life sciences themselves are mutating: we see this in genetics with debates about epigenetics, we see this in neuroscience with the rise of ideas about neurogenesis and neuroplasticity. The life sciences are beginning to recognise that to understand the organism you have to locate that organism, on the one hand in its milieu and, on the other hand along the axis of time. You need to grasp how that organism develops in highly complex ways in interaction with everything that surrounds it and everything it experiences.

It’s true however that the conceptions of the environment or the milieu, and the analyses of the ways in which these environmental factors shape the life of organism are rather simplistic. This does offer an opportunity for a new relationship. The life sciences – if I can use that over-general term as shorthand - having once recognized that they have to understand organisms as they develop in their milieu, open a space for the human sciences to begin to introduce arguments and evidence about that milieu. We can then ask how those features of the milieu that have been so central to the human sciences - inequality, exclusion, injustice, racism and so on - get inscribed within the body itself. In other words, the human sciences, like the life sciences, have to realise that the organism exists only in and through its milieu; the human sciences have to realise that the entities with which they’re concerned, human beings, individually and collectively, are living vital creatures, whose lives and opportunities and disadvantages and ailments are intrinsically shaped by the way in which all those environmental forces act and transform and mark their bodies and souls.

That’s why I believe there are opportunities for a new relationship. It’s a difficult relationship. There are all sorts of differences of power between the life sciences and the human sciences. There are all sorts of quite understandable anxieties about colonisation of the human sciences by a powerful set of biological arguments. There are still concerns about biological reductionism and determinism. There are understandable criticisms of the way in which the environment is so highly simplified in much argument in the life sciences. And of course there are some sectors of the life sciences that are still pretty resolutely reductionist. One certainly sees this in recent developments in neuropsychiatry for instance that devote all their energies to exploring the genetic and the neurobiological basis of psychiatric ailments, effectively excluding all the other things, the environmental, the biographical, the historical, the cultural, the linguistic – all these are pushed to a kind of exterior. So there are many challenges, which is why it is an interesting moment.

CLINICAL CHANGES

As Foucault had taught us “the epistemological, ontological, and technical reshaping of medical perception ‘comes’ through the interconnections of changes along a series of dimensions, some of which seem, at first sight, rather distant from medicine”. In this sense do you think there is an epistemological, ontological, and technical reshaping of medical perception nowadays in the UK and at in developed industrial countries? Do you think that the ‘golden age’ of clinical medicine has ended?

Things are changing, but we should probably be not too epochal about it, not think that suddenly there is a change from one way of doing things to another way of doing things. We are certainly no longer in the golden age of clinical medicine, if by that one means the untrammelled power of the doctor, who alone is able to diagnose, who alone is able to prescribe the treatment, who alone is able to understand the nature and the basis of the illness that is being seen. That was a period when medical knowledge, clinical vision, and technical skills were all integrated in the person of the doctor. That moment has gone. Clearly these days doctors rely upon a whole series of forms of expertise which they themselves do not possess. Whether they are the tests that are carried out in the laboratories, whether they are the genetics that they use but they don't undertake, whether they are the robotic technologies that they use for their interventions etc. etc. Let alone all the modes of management of health and illness which happen outside that clinical encounter between the doctor and the patient.

So in that sense, the golden age of the clinic, as it was described in *The Birth of the Clinic* had indeed changed, mutated. But I don't think that necessarily means that the crucial role of the doctor has been effaced. Even in the wonderful medical innovations that one sees, whether these are face transplants, womb transplants etc. the role of the doctor remains crucial, and the power of the doctor, at least in public perception, is also crucial. The doctor as a wise person, the doctor as a person with crucial technical skills, the doctor as the person who really is able to give dispassionate yet caring advice on how to manage one's health and illness. I think a lot of those things still remain. So what one sees is not a radical epochal change, but mutations at many different levels. Foucault showed that *The Birth of the Clinic* arose at the confluence of developments on a number of different dimensions; so one sees this reshaping also arising at the confluence of changes along a number of different pathways. Let me take one small example, the rise of the empowered patient, free to choose, which to some extent is a reflection in the medical domain of a much wider shift in relations between experts and their subjects. It doesn't arise initially from within medicine, but once it has arisen it is incorporated in medicine and transforms the relationship between the doctor and the patient. Not just in general medicine but also in many areas of psychiatry. The technological changes, robotics, computing and so forth, which have enabled a series of new types of medical intervention, also didn't arise initially within medicine, they arose elsewhere but they had major consequences for medical practice. So if one was doing a history of our present, one would have to trace through those dimensions with the same ethos that Foucault demonstrated in *The Birth of the Clinic*.

THE (RELATIVE) ROLE OF THE BIOMEDICAL MODEL IN THE TRANSFORMATIONS OF MEDICAL PRACTICE

Do you think that in clinical practice in the UK “the clinical gaze has been supplemented, if not supplanted, by the molecular gaze, which is itself enmeshed in a “molecular” style of thought about life itself”? Can you comment on how these new biotechnologies have impacted different health fields (Hospital Care, Primary Health Care, Research, etc.)?

Perhaps a way to start here is to talk about the term biomedicine. We don't now think too much about that term biomedicine when we use it, but it implies or embodies a belief that the practice of medicine should be based on a biological understanding of the human organism. That it's through an understanding of the normal and pathological functioning of these vital biological processes or bodies, organs, brains, that medicine should be practised. However we have seen both the success and failure of that belief. Failure, because of the very well-known problems of translation from basic biomedical research into clinical interventions. One sees that most clearly in psychiatry, where we know so much more about the nature of neural processes but we have been unable to translate that into effective clinical interventions. One also sees that in genomics where despite the huge expectations, genomic based interventions into common complex disorders have not had the impact that many anticipated. So, I think while there is a molecular style of thought about life itself, the way in which this moves into clinical practice is highly varied. In many cases it's the aspiration that drives forward medical research, rather than a reality. Research for biomarkers for particular disorders for example, which drives medical research, is a constant aspiration: we wish to find all these biomarkers so we can identify diseases pre-symptomatically and intervene early. And we have seen a succession of announcements - that we have found the biomarker for Alzheimer's disease or whatever it is - which have proved to be premature at best and misleading at worse.

So clinical activities, even in the heartland of clinical medicine, are not overwhelmed by these major biomedical developments, but none-the-less, in more mundane ways, practices and expectations have been reshaped: in the use of anti-immune treatments in transplants, in the success in keeping very premature babies alive, in new modes of intervention into stroke, new ways of treating heart disease and so on. These changes, perhaps more profound when taken together, have occurred rather below the radar of the excitement about the revolutionary transformations in biomedicine.

So that's about the research side of things and the difficult translation between research and practice. To the extent that these are impacting in the other areas you mentioned, for instance, primary health care, we need to do more empirical investigation. It is usually believed, in countries that have developed primary health care systems, that most of the consultations that individuals have with their primary health care physician are about problems which are not necessarily of a medical order, and can not necessarily be resolved by a medical intervention. These everyday miseries that are brought to the doctor are not impacted in those kinds of ways by these developments in biomedicine. Of course, one could point to the use of new - well not so new - anti-depressant drugs. These have become so prevalent as a way of primary health care physicians dealing with the miseries and unhappiness's of their patients. That's one way on which they are intervening and impacting, but perhaps it's not so much their molecular style of thought that gives them their power, it is the old fashioned wish of the doctor to do something for their patient. This wish of the doctor to do something - which obviously is affected by the wish of the patient to have something - also has some major downsides, as we see in the overuse of antibiotic medication. The wish of the patient to have something to take away, the wish of the doctor to give them something to reassure them, leads to great over prescription of these anti-microbials, which as we know is leading to severe problems of resistance. There are interesting questions here, about the relations between these old clinical realities and the new biopharmaceutical realities - and the reshaping of bodies by medicine itself.

In hospital care I think that the major impact of biotechnology is again mundane; to the extent that hospital care is being transformed, that owes less to new bio-technologies than to old economics, the wish to get the patients out of the hospital as quickly as possible. Of course, this is linked to different forms of knowledge which suggest that the patient's health prospects are not improved by a long

stay in hospital but quite the reverse, that one should move the patients out of the hospital and back in to the home as rapidly as possible. There's a coincidence between a medical argument and an economic argument about the throughput of patients and so on. It would be quite wrong to suggest that the whole of medicine is being transformed by these new biotechnologies, because as I've argued elsewhere, medicine is a highly heterogeneous practice. The medical model that so many people like to talk about applies, if it applies at all, to a small section of what doctors do and a small section of health care, and there's much more which is shaped by different styles of thought and shaped by different modes of intervention and different socio-political processes.

THE DIFFERENT VITAL POLITICS AND THEIR IMPACT AT THE HEALTH SYSTEMS

Taking the UK and the NHS as a reference, can you talk about the elements of its vital politics that resemble what you call "the politics of health and illness" which is typical of the XVIII and XIX centuries and the elements that characterize the `politics of life itself` today, taking as its object actions to optimize life? How do those different vital politics relate to each other and what is their consequence for the health care system nowadays? Can you discuss it taking Brazil as example for your reflections?

I would love to be able to talk more about Brazil but I am not sufficiently knowledgeable about the health care system in Brazil to be able to talk in any sensible way about it. Clearly in Brazil, as opposed to in a country like the United Kingdom, the gradient of wealth and poverty is incredibly steep. The proportion of the populations who live in environments that are relatively untouched by the transformations in health care in the 18th and 19th centuries, let alone those in the 20th and 21st centuries is very high. I am not just talking about people in the Amazonia region, but also people living in the favelas who scarcely have access to clean water and the round glazed sewage pipes which did so much to change life expectancy and the distribution of illness in the European cities of the 19th century.

So in many respects in Brazil there are 21st century medicine and pre-19th century medicine alongside one another and so there's not a single vital politics that's going on there. At least part of what one might struggle for in a country like Brazil is the putting in place and the generalizing across the population of these things that Foucault and his colleagues do talk about in *The Politics of Health in the 18th Century*⁵: the paving of the streets, the provision of pure water, the management of pollution. The level of industrial waste and industrial pollution in some areas of Brazil is absolutely horrifying. There's an older politics of health there, alongside a new politics of optimisation of vital properties. Again, I can't talk so much about Brazil, but take the example of assisted reproductive technologies, the use of these technologies to enable infertile women to produce children. In many of the developing regions of the world, and perhaps in Brazil as well, there is a large and growing market in reproductive technologies. Private companies set up clinics in order to provide these new technologies to women, or couples who are infertile, whose desires are shaped by beliefs about the importance of having your own child. So to that extent, optimisation in the sense of enabling all those who wish to have children is another element which is not confined to the UK and the National Health Service.

Optimisation in terms of the provision of those drugs that try to treat risk, that's another key thing one sees in the health services in the UK. Those drugs, whether the drugs for reducing lipid levels or drugs for reducing blood pressure, all those drugs for treating the empire of risk, become central to these optimisation strategies. Screening and early intervention - that's a kind of early optimisation, and despite many questions about its efficacy, it is having a significant impact on the health services in Europe and in the UK. Take another example: the rather controversial politics around the use of very expensive drugs to treat people with late stage cancers - drugs that are going to increase their life expectancy by a few months. We see difficult dilemmas here about how a health care system deals

with the management of the expectation that everything will be done to extend a person's life, how that can be reconciled with the recognition that everything that's done to extend one person's life has a cost which then impacts back on rather more mundane technologies for assisting other people in their lives. So there are very different dimensions of these optimisation technologies, and they have differential impact in different health care systems.

CURRENT RESEARCHES

Can you comment about your actual research interests in the Department of Social Science and Health Medicine at King's College? What contributions can these dialogues bring to sociology, public health and to political interests shaped by the goal of welfare and equity?

We discussed earlier my argument that there are new opportunities in the relationships between the human sciences and the life sciences. Those new opportunities underpin the research strategy of my department of Social Science Health and Medicine at King's here in London. One of the reasons for coming to King's and building this department here, is because King's has such a concentration of medical and health care resources, ranging from very basic biomedical research to applied biomedical research and ranging in areas from cancer to psychiatry. So there are real opportunities for trying to build the bridges between the disciplines, not just in an abstract theoretical way, but in a very practical way. I can give you three examples.

First, my own work on mental health in urban situations. Sociologists and anthropologists have a long standing concern with the distribution of different forms of mental life and mental health and mental ill health across urban settings going back to the 19th century. How one can link that to the developing understanding within the life sciences and the neurosciences of the ways in which these different experiences of urbanicity shape human biology and human neurobiology. What might that mean for different ways of defining urban existence: now that more than half the world's population lives in cities, this question is a crucial one. Cities are of so many different types, ranging from Mumbai to Manchester, from Rio to Reading. Urban environments are being shaped and reshaped and re-planned all the time, so perhaps this is an area where these new ways of thinking collaboratively between the biological and the social can gain some traction.

A second example is the work we do here on mental health in conflict and post-conflict situations. The experience of conflict and its impact on psychiatric health and psychiatric services is something that one has to understand both at the organisational level, at the cultural level, at the level of memories and stories and identities, and at the level of the psychiatric disorders themselves.

These are some of the things that we are interested in, in our research and in the way in which we teach our students. Our undergraduate programme involves teaching and training in the social sciences on global health and training in basic biomedicine so that our students can begin to understand the ways in which the human body is shaped by these interventions. To put it crudely, if at least part of the vocation of sociology is to understand and help alleviate social suffering and generate equity, equity at the level of life itself, then I don't think that these new forms of research and education are entirely futile.

INTERESTS IN BRAZIL

Why this interest in this dialogue with a country like Brazil, which you have been looking for?

As for Brazil, one of the many reasons for the collaboration with colleagues in Brazil is because it seems that the interests which we have here are shared by many in Brazil. Both the conceptual and the practical, pragmatic concerns seem to find a resonance with many colleagues in Brazil. In that sense collaboration can only be for the good. And comparative research can illuminate exactly some important dimensions of these relations between the social and the biological that we have already discussed. The context in Brazil is in some ways similar and in some ways very different from that in the UK and Europe, and so that comparison can stimulate creative thought. And, no less important for me, I have good friends in Brazil, so it's nice to go back.

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