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(Ir-)Responsibilization, genetics and neuroscience

Thomas Biebricher
Goethe Universität, Germany

Abstract

The concept of responsibilization that originally emerged out of the context of the so-called *Governmentality Studies* is now widely used in various social sciences to describe a governing technology particularly attuned to the challenge of neoliberalism, i.e. how to govern free individuals. However, in seemingly paradoxical simultaneity with the hegemeony of neoliberalism that relies heavily on individual choice, freedom and responsibility, two powerful scientific discourses exist that appear to undermine these assumptions vehemently, namely genetics and neuroscience. Starting from a discussion of the strengths and limits of the notion of responsibilization, the article argues for the need to introduce the complementary concept of irresponsibilization that can be interpreted as a form of what Foucault in his lectures on the *History of Governmentality* refers to as 'counter-conduct' – in this case, against the neoliberal governing technology of responsibilization. The article proceeds to explore to what extent genetics and neuroscience can be considered discourses fuelling forms of genetic and/or neuro-irresponsibilization, which would make sense of the seemingly paradoxical co-hegemony of neoliberalism, on the one hand, and genetics and neuro-science, on the other. However, the article ultimately argues that, upon closer inspection of the findings in these disciplines and how they are used, it turns out that constituting oneself as a 'somatic individual' as a form of counter-conduct comes at a considerable cost, notably new forms of genetic and/or neuro-responsibility. Thus, the article closes with the twofold conclusion that wherever there is responsibilization, there is also irresponsibilization and that genetic and neuro-irresponsibilization are risky strategies of counter-conduct that might bring in responsibilization on a different level through the back door again.

Corresponding author:
Thomas Biebricher, Cluster of Excellence 'Formation of Normative Orders', Frankfurt am Main
Email: thomas.biebricher@normativeorders.net

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Even a casual observer cannot fail to notice that responsibility is a truly ubiquitous notion these days. Be it Tiger Woods who recently evoked responsibility indirectly with his public apology for irresponsible behavior, or President Obama who proclaimed a new era of responsibility in his inaugural speech. However, as many less casual observers from various social sciences would add, the pervasiveness of responsibility is neither a natural nor entirely random phenomenon. On the contrary, to a large degree, it would have to be seen as the result of various forms of what they refer to as *responsibilization*. Supposedly, responsibilization can be found across a range of social contexts from criminal justice to workplace safety, and from social insurance systems to the labor market. The effect of responsibilization can be summed up first of all as an individualization of risk involved in various courses of action, i.e. as an obligation to accept personal responsibility for the outcomes related to certain actions. Conversely, forms of collective responsibility tend to wane, thereby contributing to what many consider an increasing desolidarization within neoliberal societies.

The aim of this article is not to dispute the responsibilization thesis in principle. Rather, it is to complicate and enrich the picture thus painted. For this purpose I will try to draw attention to forms of what I call *irresponsibilization*. Again, the point will not be to invalidate the diagnoses of responsibilization but instead to challenge their straightforward character and thus contribute to a mode of analysis that is more encompassing on an empirical level and promises to be more productive on a theoretical level. The article is structured in the following way.

In the first section the responsibilization thesis will be discussed more extensively. In the following I will specify what I deem to be potentially problematic about it and what the theoretical and political stakes of complementing responsibilization with irresponsibilization are. The second section introduces two of the most influential scientific discourses of the present, genetics and neuroscience. At first sight, some of the crucial findings in both disciplines are strongly at odds with conventional understandings of personal responsibility by attributing causal power for actions and decisions to genetic dispositions and pre-/unconscious neuronal activity. I suggest that the immense popularity these disciplines enjoy with the general public is in part due to their effects of irresponsibilization. More precisely, they could be interpreted as knowledge reservoirs that can fuel what Foucault calls forms of 'counter-conduct'. However, while constituting oneself as a 'neurochemical' or 'somatic' individual (Rose, 2000, 2003) might plausibly be interpreted as a strategy of self-irresponsibilization, in the third section I will show that a more thorough look at the research in neuroscience and genetics as well as the way they are used leads to the conclusion that such forms of self-irresponsibilization come at a considerable cost, not least of which are new forms of responsibilization.

Responsibilization and its problems

The concept of responsibilization emerges out of the context of the so-called *Governmentality Studies* that take their theoretical cues from Michel Foucault's lectures on the

history of governmentality (O'Malley, 1992). For most scholars who consider themselves part of this research tradition or at least as influenced by it, responsibilization is closely linked to (neo-)liberal forms of governing. While it is notoriously difficult to pin down neoliberalism (Larner, 2000), for now, it will suffice to define it as a body of ideas and corresponding practices that revolves around deregulation, privatization, individual freedom of choice and a strong belief in the dynamics of markets. Foucault and governmentality scholars consider neoliberalism to be characterized by a distinct governmentality, i.e. a reflected practice of governing. Neoliberalism on this account signifies certain ways of conceptualizing and reflecting on government, which in turn inform concrete practices of governing and the choice of respective technologies as Foucault refers to them. The inevitable 'failure' of these practices and technologies (not the least due to unintended consequences, etc.) feeds back into ever-renewed reflections and problematizations of government that come to inform future governing practices. The specific challenge for neoliberal governmentality lies in the necessity to govern individuals who are invested with certain freedoms that have to be respected. While rule of law considerations certainly play a role in this regard, granting this freedom is even more important as a condition of individual productivity and innovation, without which markets are likely to lose their dynamic character. So how are individuals to be governed without either resorting to open violence and coercion or to the close surveillance and micromanagement of a police state while still maintaining control over them? To put it in slightly different terms, how is it possible to govern through the very freedom of individuals, and how is it possible to govern 'at a distance' (Rose and Miller, 1992)? Responsibilization emerges as one of the key technologies aimed at solving this problem. After all, the potential danger of granting individual liberties lies in the possibility that they might be used for disruptive or generally unproductive purposes. However, if individuals were to make responsible use of their freedom, this danger would be reduced to a minimum while maintaining its productive and innovative potential. Responsibilization, thus, is about interpellating individuals in a certain way. It can take place through legal norms, moral exhortation, informal sanctions and tacit conventions. Overall, it is best understood as a technique that turns individuals into subjects that consider themselves as free and responsible for their own actions as well as the respective outcomes.

Let me start with a brief survey of the way responsibilization is applied in various fields of social science. In criminology, responsibilization has been highlighted first and foremost in the work of David Garland (Garland, 2001). He shows that offenders today have to accept personal responsibility for their deeds, irrespective of a potentially traumatic childhood or poor living conditions, which manifests itself, for example, in minimum sentencing laws. Society is no longer held responsible for what a perpetrator has done, or rather, how she came to be a person acting in a certain way. Accordingly, she will have to accept full responsibility herself. Furthermore, Garland shows that responsibilization also extends to potential victims who are advised to behave responsibly, i.e. protect their property, avoid dangerous situations and stay away from the bad parts of town. The good parts of town, in turn, are monitored by neighborhood crime watches; in other words, citizens who are called upon to take at least some responsibility (shared with the police) for the collective security of their surroundings.

The current crisis aside when systemic factors are too blatant to ignore, labor market policies also display a general tendency towards an increased focus on personal responsibility for (un)employment. In contrast to a period lasting roughly from the 1930s to the 1970s when unemployment or underemployment was considered to be related to economic crises, lack of aggregate demand and other macroeconomic phenomena beyond the control of average individuals, a different understanding has been gaining ground steadily over the past thirty years. It is often with reference to the work of Gary Becker and his theory of human capital that unemployment is constructed as a result of autonomous decisions of individuals to invest in a certain set of skills or a certain form of human capital that simply fails to generate sufficient demand on the market (Becker, 1964). Since no one forced these individuals to invest in this rather than a different set of skills, society does not owe them extended solidarity; how they fare on the labor market, whether they fail or succeed, is attributable to their own self-chosen actions for which they bear full positive and negative responsibility. Note, however, that it is not only this side of the capital–labor nexus that is invested with responsibility. Throughout the past decade the demand for *corporate responsibility* has been on the rise and more and more corporations feel the need to meet these expectations to some degree – if only due to concerns over a damaged reputation that might jeopardize the profitability of their business (Shamir, 2008).

Another site of growing responsibilization is the area of health care and retirement policies where individual choice of a health-care or retirement plans – if any are offered – correspond with the personal responsibility to accept the repercussions of these choices. Being diagnosed with a disease not covered by a particular plan thus does not prompt collective solidarity. What often turns out to be a personal tragedy with regard to health and wealth alike is something for which the individual has to accept personal responsibility. This also pertains to lifestyle choices that might contain health hazards. The activating state of neoliberalism relies on its citizens to cooperate: 'Every citizen must now become an active partner in the drive for health, accepting their responsibility for securing their own well-being' (Rose, 2001: 6). I will return to this point further below. Whether it is the labor market, retirement, health care or crime, individuals are activated and encouraged to take care of themselves; in short, there is a good empirical case to be made for the responsibilization thesis.

Nevertheless, I think there are potential theoretical and political problems to the responsibilization thesis that warrant closer scrutiny. In my view these problems can be traced back to Foucault's own work in the heyday of his genealogical phase, namely *Discipline and Punish* and the *Will to Knowledge*, but it can also be detected in some of the more contemporary *Governmentality Studies* (Lemke, 2000; Biebricher, 2008). One of the most enduring and scathing lines of criticism with regard to *Discipline and Punish* addresses Foucault's depiction of the workings of disciplinary power. It seemed, the critics argued, as if individuals were molded into disciplined subjects on such a deep level – Foucault famously stated that subjects are among the 'prime effects' of power (Foucault, 1980: 98) – that it was inconceivable that there was any space for resistance, although Foucault insisted that 'where there is power there is resistance' (Foucault, 1978: 95). In other words, one could easily have the impression that practices of power inscribed themselves into and took control of individuals who were hardly more than

passive objects of ever more refined and efficient practices that aimed at an optimum level of docility and productivity in the bodies to which they were applied. The picture of a disciplinary society, populated by individuals fully under the sway of power raised multiple concerns, not least political ones. Although Foucault later described his own attitude as 'hyper- and pessimistic activism' (Foucault, 1984: 343), an alternative political lesson of *Discipline and Punish* might have been cynicism, acquiescence or fatalism in the light of his depictions of apparatuses (*dispositifs*) of power effortlessly co-opting resistance and tightening their grip on individuals with every transformation. These political concerns ultimately point to the theoretical questions prompted by what some commentators have viewed as a highly problematic if not self-defeating form of critique (Taylor, 1984). The first question in this context concerns the role afforded to individual agency. While it is not necessary to grant individuals autonomy in the strong sense of the term, without a situated and constrained form of individual agency it is hard to make sense of Foucault's link between power and resistance. The second question refers to Foucault's general characterization of power as an unstable and almost protean web of asymmetrical relations. Power, he writes in the *Will to Knowledge*,

> [is] the multiplicity of force relations immanent in the sphere in which they operate and which constitute their own organization; as the process which, through ceaseless struggles and confrontations, transforms, strengthens, or reverses them; as the support which these force relations find in one another, thus forming a chain or a system, or on the contrary, the disjunctions and contradictions which isolate them from one another; . . . . it is the name that one attributes to a complex strategical situation in a particular society. (Foucault, 1978: 92–3).

If this is to be taken seriously, then individuals cannot plausibly taken to be fully constituted and far less determined by disciplinary practices or other forms of power for that matter. If power consists of multiple relations of force, then the subject must be a far more heterogeneous entity than some of Foucault's more dedifferentiating remarks suggest.

My point is that all of these concerns still haunt some of the work that is being done in the *Governmentality Studies* and more specifically that they apply to the responsibilization thesis. It is in order to address these potential dangers that I suggest we complement the critical diagnosis of responsibilization with an account of forms of irresponsibilization. Let me elaborate.

When I introduced the concept of responsibilization, I deliberately made use of a vocabulary one is likely to find in Foucault's own genealogical work as well as in the *Governmentality Studies* literature. Subjects are molded, produced and constructed as if this were an entirely a-relational procedure that was inevitably successful in producing fully responsible subjects. It should be clear that political and theoretical problems analogous to the ones discussed above loom if responsibilization is viewed this way. Consider an example that illustrates these points. Even as consumers, individuals are often portrayed as responsible customers. This can take many different forms from the moral exhortation of non-profit groups to check where and under what conditions certain textiles are produced to consumer protection groups who advise them not to go on spending sprees that wreak havoc on personal budgets. However, there are indeed other forces at

play when it comes to molding subjects as consumers. Simply consider the multi-billion dollar industry of marketing or the practices prevalent until very recently on the US credit card market where credit cards where handed out left, right and center, thus making it possible to satisfy the needs aroused by clever marketing ploys.[1] While there are forces that interpellate individuals as customers who feel responsible for the consequences their purchases have for themselves and others, the other forces just mentioned suggest that gratification is possible here and now, and they do everything to blur potential negative consequences. What about agency? While I certainly would not want to underrate the general pressure to become responsible, in this particular instance it is quite obvious, that there is room to maneuver. Thus, my overall point is that it is simply impossible that one can ever be a fully responsible subject. There are just too many forces pulling the individual in different directions; some people are just not capable of meeting the demand of being fully responsible and some people refuse to comply with it – albeit at potentially considerable personal costs.

Luckily, the Foucault of the *History of Governmentality*, out of which grows the interest in responsibilization offers the theoretical resources to make sense of this state of affairs in a more satisfying way than in his earlier micro-physics of power. Power now is conceptualized as the 'conduct of conduct' (Foucault, 1982: 221). This implies that power can be seen as an attempt to shape and circumscribe the way others conduct themselves; it is 'a set of actions upon other actions' (Foucault, 1982: 220). Foucault asserts the individual agency that is already conceptually implied here even more straightforwardly, stating that 'power is exercised only over free subjects, and only insofar as they are free' (Foucault, 1982: 220). This re-conceptualization also offers Foucault the theoretical space to introduce the notion of 'revolts of conduct' in the *History of Governmentality* (Foucault, 2007: 194). However, the term is 'both too precise and too strong to designate much more diffuse and subdued forms of resistance'; consequently, he settles for the term 'counter-conduct in the sense of a struggle against processes implemented for conducting others' (Foucault, 2007: 200–1). Counter-conduct is possible in a wide variety of contexts and can be engaged in by a wide variety of actors. There might be a 'dimension or component of counter-conduct that may well be found in fact in delinquents, mad people, and patients'; what matters is that it takes place in the 'very general field of politics or in the very general field of power relations' (Foucault, 2007: 202).

Unfortunately, Foucault restricts the substantive analysis of forms of counter-conduct to his discussion of religious counter-conduct in the sixteenth century to only one lecture (Foucault, 2007: 191226). The brevity of this episode and the marginal status of counter-conduct in the remainder of the lectures certainly do not set a strong example for affirming the significance of individual agency in power relations. Still, it is somewhat surprising how rarely the notion of counter-conduct has been given due consideration in the secondary literature. One of the few exceptions in this regard is Arnold Davidson who traces forms of counter-conduct in Foucault's discussions of gay culture and friendship in the 1980s. As he points out in his lecture 'In Praise of Counter-Conduct' (Davidson, 2008), the latter operates on an ethical as well as a political level; that is to say it is not just a refusal to be governed by others and particular norms in a certain way, it also involves a different form of conducting oneself. In the remainder of the

article, I will try to offer an interpretation of neuroscience and genetics that treats them as resources of knowledge that can inform practices of counter-conduct. I will refer to this kind of counter-conduct that involves a different self-relation, namely that of the somatic individual, as (self-)irresponsibilization.

However, one final question regarding the theoretical status of counter-conduct needs to be discussed at this point; it is the question of normativity. To put things very bluntly, the more specific question in this regard is whether responsibilization is to be welcomed or rejected on normative grounds. Let me attempt an answer by way of a small detour. The phenomena described as responsibilization are also addressed, albeit in differing terms, by other research traditions and the basic normative issue is not an entirely new one either.[2] A particularly good example is the current research agenda of the Frankfurt Institute of Social Research. This agenda was published in the form of a series of essays under the title of *Befreiung aus der Mündigkeit (Liberation from Maturity)*. In his contribution, Klaus Günther explores the normative ambivalence of personal responsibility. According to him, investing individuals with personal responsibility might lead to paradoxical effects to the extent that empowerment turns into discipline. For Günther, discipline describes a constellation in which responsibility turns into a burden on individuals demanding a psycho-somatic toll they have to pay. This might, for example, come in the form of depression and 'the weariness of the self' (Ehrenberg, 2010). This weariness would be the effect of a life of seemingly endless possibilities that require nothing more – and nothing less – than tireless efforts and incessant initiative for their realization, which leaves some people paralyzed at the prospect of their individual responsibility in case they fail or are simply psycho-somatically exhausted. Günther considers a number of coping mechanisms (drug abuse, expressive violence, sado-masochism) but they do not provide feasible alternatives given their 'pathological' nature (Günther, 2002: 137; see also Bröckling, 2007: 283–98).

This analysis is far from atypical because there is widespread agreement that the concept of (personal) responsibility has normatively ambivalent effects. Even orthodox Kantians for whom personal responsibility is inherently tied to human autonomy and dignity are likely to accept that the former can also be a burden on the individual. On the other hand, even dyed-in-the-wool Nietzscheans would probably shy away from rejecting personal responsibility *tout court* – although Nietzsche himself suggested as much: 'man cannot be made responsible for anything, neither his nature nor his motive, nor his actions, nor the effects of his actions' (Nietzsche, 1996: 43). In this matter I suggest following Foucault's lead: 'My point is not that everything is bad, but that everything is dangerous, which is not exactly the same as bad' (Foucault, 1983: 231). Drawing on a recent interpretation of Foucault by Nealon (2008), I believe one way of 'operationalizing' this attitude is to ask questions about the *cost* of a given practice – and I think Foucault's basic assumption is that there is no such thing as a free lunch in this regard. What this implies is that there is a cost to constituting oneself/being constituted as a personally responsible subject (potential depression, burn-out syndrome, anxiety, stress), all the potential payoffs notwithstanding. Conversely, trying to relieve oneself of that personal responsibility by constituting oneself as a somatic self also comes at a cost, as I will try to illustrate below. To sum up, interpreting practices of self-irresponsibilization that feed off genetic and neuro-scientific discourses as forms

of counter-conduct does not imply any normative espousal of such practices – simply because they can be seen as a form of resistance. The present analysis does not provide a normative argument for or against (ir-)responsibilization. Rather, it attempts to offer a 'balance sheet' regarding what it means to be constituted/constitute oneself as a neuro-genetic self, i.e. a subject with limited liability.

Genetics and neuroscience

It goes without saying that it is impossible to provide even a rudimentary account of the vastly expanding fields of human genetics and neuroscience, not only because of the rapid rate of increase in findings and knowledge but also because of internal differentiation processes within the disciplines that make it even more difficult to provide a concise overview of the endeavors taking place. It is also important to know that there is not a hard and fast line between genetics and neuroscience, given the fact that bio-chemical processes on the neuronal level are often but not exclusively triggered through genes. However, while the demarcation line between the two disciplines should not be overstated, I will mostly stick to an analytical distinction, not least because the findings of *cognitive* neuroscience broadly understood I will discuss in the following have relatively little to do with the *behavioral* genetics I refer to predominantly, and also because the effects of irresponsibilization and re-responsibilization differ in some respects despite significant similarities.

What is so stunning about both these disciplines is not just the fascinating knowledge they generate per se, it is also the extent to which these highly specialized scientific discourses resonate with the general public. Genetics and neuroscience are not just scientific disciplines; by now an enormous array of popularized accounts as well as self-help literature (e.g. genetic counseling) occupies the shelves of mainstream bookstores. Of course, this fascination is in part due to the nature of the questions addressed by both disciplines. More importantly, though, my point is that the allure these disciplines exert on the collective psyche can also be attributed to their promise of irresponsibilization.

For present purposes the crucial question posed by human genetics is, to what extent what we are and what we do can be reduced to our genes. Extensive research has been done on the link between certain genes, their presence and absence as well as respective mutations, on the one hand, and behavioral and personality traits, on the other. There are, for example, experimentally established links between certain genetic constellations and obesity, addictive behavior and various diseases from certain forms of multiple sclerosis to Huntington's disease. While there are connections such as these that are well established, there are plenty of others that are of a more controversial nature, not only because of their social repercussions but also due to debates over the validity of the respective experiments within the scientific community, from 'learning' and 'intelligence' genes to the 'gay' gene (see HGPI). But setting all the more problematic cases aside, there is a broad consensus within the scientific community that the fact that some people are overweight or that some people have a particular hard time quitting smoking has something to do with their genes. It is not too difficult to see how this, at least at first sight, complicates the concept of personal responsibility. The latter is typically tied to the presupposition that there was a choice between different courses of action involved.

Responsibility corresponds to the freedom expressed in this decision. People obviously do not choose their parents and neither do they choose their genetic make-up. According to this logic, it seems rather implausible and normatively questionable to hold people responsible for outcomes that they could not willingly alter. To put it in slightly paradoxical terms, it is not us but our genes that are responsible.

Questions of freedom of will, genetics and determinism may seem like the exclusive preoccupation of ivory tower residents but nothing could be further from the truth. On the contrary, these issues resonate extraordinarily well with the general public, as already hinted at above. The reason, I suggest, is partly to be found in the appeal of being relieved of personal responsibility for what are considered negative personality and behavior traits. A Stanford University student interviewed for a *New York Times* story sums up the allure in a telling and concise way. Asked about whether he would appreciate finding out that he is genetically predisposed to suffer from strong addictive behavior especially regarding cigarettes, he responded: 'Let's say I'm still addicted to cigarettes 10 years from now … It might feel like it's not a total personal failure, just that certain things made it harder for me than other people. It kind of takes the weight off' (Harmon, 2006). Genetic irresponsibilization might therefore be said to provide a welcome and less psychologically devastating way to deal with the experience of failure. It might subsequently make it easier to respond to failure in a more productive way and it might also help mitigate the potentially paralyzing effects of anticipating and fearing failure. Furthermore, one might hope that attributing obesity or alcoholism to an individual's genetic make-up would increase social acceptance of the individual and would reduce stigmatization. After all, obesity would not be due to laziness, a lack of will power or some other kind of character flaw but rather considered a disease.

Before turning to the costs involved in genetic irresponsibilization, let us take a look at neuronal irresponsibilization. The provocation that cognitive neuroscience provides for philosophy is not entirely new as one can tell from the Nietzsche quote above. Still, such points derive a new quality from the fact that they are expressed in the idiom of the natural. At the heart of the matter is the question of freedom of will again. This time it is not the genetic heritage that complicates this notion but rather the neuronal circuits of the brain that supposedly pre-structure and even determine actions and decisions long before our conscious mind enters the picture. This point can be illustrated with reference to the classic *Libet-Experiment* of 1979, although many more contemporary versions could be cited, too (see Geyer, 2004). The participants were asked to flip their wrist and register with the help of a clock at what point the conscious decision was made to engage in the action. It turned out that the so-called readiness potential measured in the brain that signifies neuronal activity preceded the felt intention to move by roughly half a second. The experiment has stirred continuing controversy regarding what exactly it is supposed to measure, what it actually measures and how to interpret the findings (see Habermas, 2008). According to the most radical opinions in the debate, the experiments prove what Nietzsche contended more than a hundred years ago, namely that the notion of free will is an illusion: Whenever we think we engage in conscious decision-making, whenever we give and dispute reasons to justify a certain course of action, what we actually do is nothing more than provide *ex post* rationalizations. If the experiment did prove what some of the more radically deterministic neuroscientists have suggested (see Pauen and

Roth, 2008), namely that the notion of free will ought to be thoroughly naturalized, the implications would be no less than momentous. At the institutional level, particularly and perhaps most dramatically the whole criminal justice system would have to be reconceived (see Rose, 2000), but even on a personal level the impact would be dramatic: consider a racist who could plausibly attribute her attitudes to her neuronal hardwiring or an 18-year-old who attributes his violent and reckless behavior to the fact that his prefrontal cortex is not fully matured yet while his nucleus accumbens is already at full capacity (Galvan et al., 2006). And even if the assumptions are less deterministic a steadily growing body of research that indicates that human brains are profoundly bad at making certain decisions, particularly when they have to do with money and weighing short-term against long-term benefits, it seems that this would have to shed a very problematic light on neoliberal tenets about rational decision-making, especially when it comes to monetary matters, investment and insurance choices (Zweig, 2008).

In the light of these descriptions it is easy to see that the appeal of neuro-irresponsibilization as a form of counter-conduct is quite similar to that of its genetic sibling. Reproachable behavior patterns, poor decision-making skills in particular, are not subject to conscious choice or will power and hence poor performance need not be experienced as personal failure. Stigmatization of certain disorders might be reduced if they are re-described as neurological malfunctions or a chemical imbalance of the brain that is not subject to human choice. In short, just as in the case of genetic irresponsibilization, the effect might be an alleviation of the burden of personal responsibility and the suffering from that responsibility. However, as a more thorough look at the research both in genetics and neuroscience shows, trying to constitute oneself as a somatic self of the genetic and/or neuronal kind comes with considerable risks and involves significant costs.

Genetic and neuro-responsibility

While I have tried to offer an interpretation of genetics and neuroscience that focuses on their potential as resources for a certain form of counter-conduct against the governing technology of responsibilization in the last section, this interpretation deliberately left out a crucial aspect of the research findings that sheds a different light on genetic and neuro-irresponsibilization as forms of counter-conduct. In short, both genetics as well as neuroscience are neither as reductionist nor as deterministic as I described them to be. Particularly in genetics there is a broad consensus that the relation between genotype and phenotype, i.e. between a particular genetic make-up and a particular personality or physical trait, behavior pattern or disease, is a very complex one. The popularized notion that the presence/absence of a certain (number of) gene(s) determine whether someone is obese, anorexic, intelligent, or an alcoholic has to be considered a myth. As Rose puts it: 'In the developing explanatory schemas of postgenomics, the genetic code is no longer thought of as a deep structure that causes or determines, but rather as only one set of relays in complex, ramifying, and nonhierarchical networks, filiations, and connections' (2007: 130). And while there is a certain diversity of positions in the field of neuroscience regarding the debate over freedom vs. determinism, the general trend is towards a compatibilist position that seeks to reconcile at least a thin notion of freedom

of will with the determinism of a naturalist view of the cognitive processes. What does this mean for the viability of irresponsibilization as counter-conduct? Let us first look at genetics.

As already mentioned, the predictive ability of genetics, while considerable, is still limited. Even in the rare cases of monogenetic diseases, i.e. diseases that are related to presence/absence/mutation of a particular gene like Huntington's disease, it is impossible to predict the onset, course and severity of the disease (Lemke, 2004). However, gene tests do provide knowledge, but it is of a less deterministic nature. Based on these tests, which, incidentally, are offered in great numbers online, it is possible to create individualized genetic risk profiles regarding a growing number of diseases. What this means is that a person might be genetically predisposed to be obese, to develop certain forms of cancer or to become addicted to cigarettes. This knowledge once obtained turns the table on those who would embrace their somatic selves in the hope of alleviating the burden of responsibility. Now making appropriate lifestyle changes that will reduce the chances of a genetic predisposition coming to expression, becomes, *a fortiori*, a matter of personal responsibility. When someone finds out about a predisposition for cardiovascular diseases and takes up smoking or refuses to give up fatty foods, their potential heart attack cannot simply be attributed to an inscrutable fate; personal decisions and the will power to follow them through can be said to play a significant role. When the disposition was still unknown, the individual could have pleaded at least limited responsibility given that she was unaware of the specific danger she was exposing herself to when she habitually ate red meat and regularly missed gym appointments. But once this Pandora's box of genetic dispositions is opened, there is no pretending that one just did not know how dangerous certain practices are beyond the general health concerns associated with some of them.

Moreover, as Thomas Lemke has shown convincingly, this genetic re-responsibilization is tied to a number of closely related questions (see Lemke, 2004; Rose, 2007): If someone were to find out about a genetic disposition that might prove dangerous to the health of partners or (future) children, would it be their responsibility to disclose this information to their family?[3] And while it is true that there are still plenty of conditions for which there are simply no gene tests or they are prohibitively expensive and hence genetic re-responsibilization as a generalized governing technology remains unfeasible for the time being, it is not overly speculative to assume that more and more gene tests will be developed. Furthermore, due to the well-known mechanics of the economies of scale and competition between different providers they will probably become significantly cheaper in the medium term. Under those circumstances, will there not be increased pressure, if only informally, to find out about one's genetic risk profile; will it not be deemed the responsible thing to do? Will individuals not be subject to the same activating logic outlined by Rose in the quote above? These, I would suggest, are some of the most significant potential costs accruing to the counter-conduct I have described in the preceding section. However, they are not the only ones imaginable. Obviously, shunning responsibility for 'failure' in the broad sense of the term ranging from physical diseases to objectionable behavior and personality traits conversely implies that it becomes problematic to claim credit for achievements, success and even personal health. If some people are genetically predisposed to abstain from addictive

behavior or they find it much easier to take in information or need less sleep, what does this mean with regard to the rewards that they deserve for their healthy lifestyles and competitive advantages that might translate into better performance in their jobs?

Moreover, in the preceding section I put forward the hypothesis that a re-description of illnesses and personality disorders in genetic terms might decrease stigmatization. However, this re-description proves far more ambivalent. Empirical studies suggest that acceptance of individuals actually decreases when their illness is attributed to genetic factors (Phelan, 2005). Other studies show that there is a similar effect when personality disorders are attributed to neurological factors, i.e. depression is re-described as a biochemical imbalance of the brain (Mehta and Farina, 1997).[4] The reason might be that there is a more extreme effect of 'Othering' when a genetic abnormality is ascribed to individuals. The abnormality is viewed as so deeply ingrained that it turns them into fundamentally different beings, whose presence is seen as discomforting, irritating or even hazardous to their surroundings. Finally, trotting down the road to dystopia a little further, what if the notion of a genetically irresponsibilized individual *was* indeed taken seriously from a governing perspective? Would this not mean the (re-) appearance of the dangerous and incorrigible individual that Foucault portrayed in some of his lectures (*Abnormal*, *Society Must Be Defended*) and books and against which society needs to be protected by all means (Lemke, 2009)? And what is to be done with those individuals who refuse to take genetic tests when most people do, thus willingly putting society at risk on any number of levels through the health care costs they incur or the crimes they might commit? The result might be an intensification of illiberal elements within neoliberal governmentality that would prove to be a classic case of deeply unintended consequences of a certain form of resistance.

In sum, subscribing to genetic irresponsibilization and constituting oneself as a genetic self as a form of counter-conduct is a risky strategy that comes with potentially high costs, among which might be renewed if not increased responsibilization: 'Biological identity generates biological responsibility' (Rose, 2001: 19).

What about the costs of constituting oneself as a neuronal self? While the overall constellation is not entirely different, there are important specificities that must not be overlooked. Let me start with some broad similarities. As in the case of genetics, the fact that neuroscience for the most part does not amount to a neuro-determinism or neuro-reductionism makes all the difference. The brain is not an unconditioned conditioner, as it were, but is itself shaped through experience and environmental influence in general. Not only are new neurons formed through neuro-genesis, even neuronal circuits and synaptic connections, while somewhat stable, exhibit a certain measure of plasticity. In other words, the brain evolves and changes, if only to a limited degree. In fact, some of these processes are not even entirely beyond the influence of conscious action, or at least this is what a rapidly growing literature in which neuroscience meets Dr. Phil suggests: 'Every time you make a mistake or encounter something new, your brain cells are busy changing themselves' (Lehrer, 2009: 41; see also Cohen et al., 2007). Neuronal circuits, thus, are not fate, to borrow a famous formulation from a different context. This, then, is the most general similarity between genetics and neuroscience with regard to (ir-)responsibilization. In short, things are not entirely out of individuals' hands; choices and intentional action do matter, although the specifics are slightly different for each context.

While neuronal circuits can be reshaped to a very limited degree, genetic make-ups exhibit no plasticity at all. With respect to our genes we might be faced with appropriate lifestyle choices according to our genetic risk profile, but this does not change our DNA. However, on closer inspection, the differences due to more or less plasticity turn out to be less significant than they seem initially. In the case of genetics, upon finding out about their genetic information individuals are instructed as to what the appropriate behavioral response would be and then they can be held accountable if they fail to live up to these recommendations. The neuro-counseling literature, as it could be called, instructs readers both about the workings of the brain and what the appropriate behavioral response would be. If readers disregard this information they can be said to be responsible for their poor decision-making. Take, for example, Malcolm Gladwell's mega-bestseller *BLINK*! or Jonah Lehrer's *How We Think*. Both of these books that sometimes even use the same metaphors introduce their readers to the workings of the brain that structure our decision-making in ways that are mostly inscrutable to the neuro-scientifically illiterate – and which, incidentally, leave very little credibility to the notion of the conventional *homo oeconomicus*.[5] In contrast to the individualized knowledge gene tests generate, this is knowledge of a more general nature about how 'most people' tend to think and make decisions, i.e. how their brains operate. In a characteristic double-move, then, first, the power of those neurologically embedded patterns that shape our conscious actions is affirmed, only to be followed by the prospect of harnessing this power of the unconscious and thus increase our decision-making skills, which can obviously pertain to everything from choices regarding financial investments, marriage and future children, to political judgments (Thiele, 2006) or even committing a crime. The aim of this kind of neuro-counseling tends towards the paradoxical: instrumentalizing the unconscious for and through conscious efforts; relying on intuition in a rational way through certain rules of prudence and being spontaneous in an intentional and planned way (see Gladwell, 2006; Thaler and Sunstein, 2008; Kast, 2009). Of course, one must not expect too much from these rules of thumb. Lehrer advises his readers that intuition is a good guide for complex decisions with many variables assuming that we have a certain level of experience in the realm the decision refers to. Conversely, trying rational analysis in a decision-making situation with many variables and potentially random characteristics will cost a lot of time and probably lead to poor decisions. But how many variables are too many for conscious calculation, what level of experience is sufficient and also, to what extent are our intuition and the 'tacit knowledge' we are advised to rely on simply euphemisms for unexamined and normatively questionable biases? And what exactly is a poor decision? This seems to presuppose a standard other than our revealed preferences for what someone actually wants and how to find out about this is far from a trivial question. Maybe the readers have to rely on their intuition to answer these questions, but how could one make rational use of one's intuition?

What I am trying to suggest here is that the knowledge offered in this literature which ranges from the scientific-technical to the spiritual pole is deceptive in a certain way. It suggests that there are rules that can be used to improve decision-making, to manage to abstain from damaging behavior to self and others and thus become 'responsible' in both

a causal and an ethical way. Still, how these rules are to be applied properly leaves a lot of room for interpretation so there is a good chance that favorable results will not ensue because of misapplication or the rules themselves simply being wrong. As Lehrer puts it:

> Sometimes we need to reason through our options and carefully analyze the possibilities. And sometimes we need to listen to our emotions. The secret is knowing when to use these different styles of thought. We always need to be thinking about how we think' (2009: xvi).

There is constant anxiety and mobilization of the subject that never knows whether it is too rational or too intuitive; never knows when a gut decision is simply a (poor) habit/bias or a good heuristic, i.e. the result of an ingenious use of the power of the unconscious: 'Dopamine neurons [the crucial factor in intuitive thinking] need to be continually trained and retrained, or else their predictive accuracy declines ... Trusting one's emotions requires constant vigilance; intelligent intuition is the result of deliberate practice' (2009: 49). But no matter on which side we err, in the case of failure we will have to shoulder it individually. After all, we had the tools to make the right choices – but must have used them in the wrong way. With reference to the paradoxical character of these instructions, one could even go a step further. As Bröckling convincingly shows by tracing them in the portrayals of the 'entrepreneurial self', such paradoxes and contradictions are in fact the hallmark of a neoliberal governmentality that leaves individuals trapped in the endless project of improving one's skills on any number of level. In a fashion very similar to the advice from neuro-counselors, the entrepreneurial subject ought to be disciplined but also chaotically creative; a team player who is at the same time highly individualized. The result is a continual activation and mobilization of the self (Bröckling, 2007). If neuro-irresponsibilization is a form of counter-conduct under neoliberalism, once the individual has become neuro-scientifically literate, he returns to the neoliberal fold.

It would seem that the structural similarities notwithstanding, the gravity of the issues and decisions involved often make for a considerable difference between the realm of genetics and neuroscience, at least as far as the neuro-counseling literature mentioned above is concerned. Nevertheless, poor decision-making can have major repercussions and the point remains that it becomes more and more difficult to blame wrong neuronal circuitry for the bad decisions that lead some people into personal bankruptcy, others into prolonged unemployment and still others into the arms of abusive partners again and again – because the knowledge and prudential rules that could have prevented these outcomes were in principle available and these people could have chosen to learn how to make proper use of their brains. Since they chose not to, they are accountable for their 'personal failures'.

In addition to these broad similarities, we can note that most of the other costs accruing to the genetic self discussed above also apply in very similar ways to the neuronal self: rewards cannot be claimed in an unequivocal way, stigmatization of personality disorders re-described as 'diseases' actually rises (Mehta and Farina, 1997) and the phenomenon of supposedly incorrigible and therefore dangerous individuals, for example, those with a poorly developed or damaged prefrontal cortex (Brower and Price, 2001), might provide a justification for a severe shift to the illiberal side of neoliberalism through preemptive and life-long confinement.

Still, despite all of these similarities, there is one aspect to the neuroscience discourse that does not have an obvious equivalent in the realm of genetics. According to the literature just discussed, our brains develop and as they do, synaptic connections are developed and consolidated while neuronal circuits are established and the more they are used, the more entrenched they become. Brain development, however, is not a linear process. Relatively speaking, most of the structuring takes place in early childhood to the age of 5, potentially even influenced prenatally. To be sure, this structuring does not determine people's fate in the strong sense of the term but what happens in these early childhood years and even before birth is of crucial importance for anything from intellect to aggression control in later life (Kofman, 2002). Of course, the individuals themselves cannot be held responsible for the outcome of these processes. Instead it is the parents on whose shoulders this new dimension of responsibility rests. Was it infant sexuality in general and the dangers of masturbation in particular that caused parental anxiety in the nineteenth century, according to Foucault's seminal study on the *History of Sexuality*, today it is questions such as what vitamins and nutritional additives to take during pregnancy and, particularly, what constitutes the right mix of stimulation, relaxation, play and discipline for the child's developing brain? Should the child learn Chinese or play guitar at the age of 3? Is a playful reformed pedagogy preferable to a more disciplined approach; is the symmetrical exchange at a day care centre between children preferable to the hierarchical relation between a caregiver and a toddler or does the former leave the brain unchallenged if not atrophied? And if the latter were the case, what does that mean for a non-voluntary dual-earner household with regard to the dilemma between having to work for a living and being a responsible parent? Not surprisingly from a Foucauldian point of view that stresses the multiple interconnections between power and knowledge, a new field of knowledge and expertise is already in the course of development to offer advice as to how to provide optimal conditions for the developing brain and, additionally, make use of the reasoning techniques referred to above from early on: neuro-didactics and neuro-pedagogy. Interestingly, the latter in particular stresses the link between emotions and cognitive skills which brings it close to the question of how to integrate intuition into rational thought that so preoccupies Gladwell and Lehrer. Of course, these burgeoning fields also cater to practitioners in educational institutions as well as public officials who define policies and administrators who develop curricula. After all, if it is true that post-industrial societies increasingly rely on 'knowledge economies', then educational apparatuses, (neuro-)pedagogical techniques and early child brain development turn into matters of the utmost (bio-)political importance. For our present purposes, though, the crucial point remains that we see a new form of *parental* responsibilization emerge that signifies one more instance where an attempt to evade the pressure of responsibilization breeds new forms thereof.[6]

Conclusion

Let me start this concluding section with a brief summary of what I have been arguing in this article. My starting point has been twofold. First, there is the peculiar simultaneity of a neoliberal hegemony with its emphasis on individual freedom and responsibility on the one hand, and arguably the most important and influential scientific discourses of

genetics neuroscience that seemingly question these notions vehemently, on the other. Second, there is the feeling of unease with the way the concept of responsibilization is used in various fields of *Governmentality Studies*. My impression is that these studies tend to overstate the effectiveness and efficiency of responsibilization as a governing technology, very much along the lines Foucault himself used to with regard to discipline and bio-power in *Discipline and Punish* or *History of Sexuality*, vol. 1. This tends to obscure the many ways in which technologies of power in general and responsibilization in particular, fail to succeed in the purposes they are employed for and the room there is for potential and actual practices of resistance. I have furthermore argued that Foucault's conceptual shift towards notions of governing and conduct supplies the theoretical vocabulary to address this problem, with Foucault himself referring to the notion of 'counter-conduct'. In the remainder of the article I have explored what I think can be interpreted to some extent as practices of counter-conduct, or, more specifically, the scientific discourses these practices can draw on. I have suggested that part of their appeal resides in the fact that they can supply the knowledge resources and even concrete technologies (gene tests) that can be used for practices of irresponsibilization of a genetic or neuronal kind, i.e. the constitution of a somatic self, in order to fend off the pressures of responsibilization. In other words, far from being a strange paradox, the co-hegemony of neoliberalism, genetics and neuroscience can be interpreted as being internally related to a certain extent. In the final step of the argument, however, I have tried to show that there are certain costs accruing to these forms of counter-conduct. More precisely, there is a 'tactical polyvalence' (Foucault, 1978: 100) to the discourses of genetics and neuroscience. While it might be used for practices of counter-conduct, pursuing this tactical maneuver will come at a cost, the varieties and specificities of which in the way they accrue to neuronal and genetic irresponsibilization I have discussed in the remainder of the article one of the more significant of these being the return of genetic and neuro-responsibility through the back door at least under certain circumstances.

So the twofold point of the article amounts to this: where there is responsibilization, there is also irresponsibilization as a form of counter-conduct. However, irresponsibilization, at least in the forms discussed here, is a risky strategy that might bring in responsibilization on a different level again aside from a number of other costs.

While I hope to have provided some answers, there can be no doubt that a lot of questions regarding responsibilization remain, and I believe that some additional ones are raised more or less explicitly in this article. While restrictions of space do not permit me to address them as extensively as they deserve, I would like to close by at least hinting at what might be interesting topics for future research in this area.

First of all, what deserves to be highlighted is how parental responsibilization triggered by developmental neuroscience findings turns out to be remarkably reminiscent of some of the effects of psychoanalysis. There are substantial similarities with regard to the crucial time period of early childhood during which prime caregivers have the potential to influence the future lives of their children on a massive scale by what they do and what they fail to do. Hence, I think that the new form of parental responsibilization discussed here warrants further examination as to whether developments and effects of a similar or different kind can be discerned.

Beyond this, I think the concept of counter-conduct deserves more thorough scrutiny, especially if it is to take on the (crucial) role that resistance played in Foucault's earlier works. Last but not least there is the question whether accounts of (ir-)responsibilization can do without a theory of responsibility. While I would in principle defend my abstaining from offering such a theory in the present context, questions over what exactly is meant by responsibility/responsibilization remain. Are they to be understood in a causal and/or ethical way and are the respective effects similar or different?

Furthermore, consider the following point that goes back to the credit card example of the first section. When the credit card company provides easy access to a credit card without checking credit worthiness but still lets you know that there will be considerable charges for overspending, does this have the effects of responsibilization or irresponsibilization? To be sure, on the one hand, it enables and almost invites reckless behavior (Knutson et al., 2007); on the other, it provides a chance to behave responsibly while alternatives are available and thus precisely enables individuals to constitute themselves as responsible subjects.

Addressing these questions, I believe, will prove helpful for the agenda of scholars working on responsibilization and it shows once more the need to link responsibilization to irresponsibilization and clarify their relation.

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Notes

1. In 2007, for example, over five billion credit card solicitations were sent out by credit card companies in the US.
2. See, for example, Fromm (2008) [1941].
3. Note the semantic nuances and dimensions of 'responsibility', which become clear in this case. So far I have mostly talked about personal responsibility as a concept that warrants attributing causal powers regarding certain consequences to persons. But the term clearly has more overtly ethical connotations as well that are invoked when it is used as in this case. I will briefly return to this issue in the Conclusion.
4. Other studies suggest that personal responsibility does play a role in stigmatization processes. See Decety (2010).
5. A new discipline, *neuroeconomics*, is already trying to blend neuroscience and decision-making theory in order to develop models that go beyond the rationalistic assumptions about conventional *homo oeconomicus*. See Glimcher et al. (2008) and Montague (2007).
6. Note that in this case the costs of irresponsibilization need not accrue to the same person, who might not even be a parent.

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About the author

Thomas Biebricher received his PhD in Political Science from the Albert-Ludwigs-Universität in Freiburg with a dissertation on Jürgen Habermas and Michel Foucault in 2003. From 2003 to 2009,

he was a DAAD Visiting Assistant Professor at the Department of Political Science at the University of Florida in Gainesville. Since June 2009, he has been a Junior Research Group Director at the Cluster of Excellence 'Formation of Normative Orders' at the Goethe Universität in Frankfurt am Main. His research group focuses on 'Varieties of Neoliberalism and their Transformation'. Currently, he is working on a book-length manuscript about the 'Normative Worlds of Neoliberalism'. His recent publications include *Selbstkritik der Moderne. Habermas und Foucault im Vergleich* (Frankfurt: Campus, 2005), 'Habermas and Foucault: Deliberative Democracy and Strategic State Analysis', *Contemporary Political Theory* 6, 2007: 218–45; 'Genealogy and Governmentality', *Journal of the Philosophy of History* 2, 2008: 363–96; and 'The Practices of Theorists: Habermas and Foucault as Public Intellectuals', *Philosophy and Social Criticism* 37, 2011: 709–35. *Address*: Cluster of Excellence 'Formation of Normative Orders', Goethe Universität Frankfurt, Senckenberganlage 31, 60325 Frankfurt am Main, Germany [email: thomas.biebricher@normativeorders.net]