

Governing Metastability: Reopening the Question of Progress with Gilbert Simondon

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Résumé

L'article propose une réouverture critique de la question du progrès à partir de la philosophie de Gilbert Simondon, en opposant la catégorie de la métastabilité à la notion de homeostase issue de la cybernétique. Les auteurs soutiennent que l'idée moderne de progrès, héritée du déterminisme mécanique et réitérée par les sciences cybernétiques, est « mythique » en ce qu'elle réduit des processus dynamiques à des états fixes et occulte la dimension inventive et contingente du devenir. Cette conception repose sur une double réduction onto-épistémologique : la réduction de la réalité à des structures calculables et de la science à des opérations de calcul, soutenant ainsi une vision téléologique et déterministe du développement historique. Dans ce cadre, la cybernétique apparaît comme le paradigme de la condition (hyper-)moderne et comme le fondement épistémologique de formes contemporaines de gouvernement, en particulier de la gouvernamentalité néolibérale, qui privilégie des mécanismes d'autorégulation, de gestion des risques et de préservation d'équilibres homéostatiques. Un tel modèle transforme le progrès en une adaptation continue à l'« éternel présent » du marché, neutralisant le conflit, la subjectivité et l'invention sociale. À l'inverse, la notion simondonienne de métastabilité conçoit les systèmes sociaux comme traversés par des tensions productives et par une marge structurelle d'indétermination. Le progrès cesse alors d'être compris comme une marche vers une fin prédéterminée pour devenir l'invention de nouveaux objectifs, médiée par la relation entre les humains, le monde et les objets techniques. Gouverner le progrès, en ce sens, implique d'assumer le risque de l'invention normative, d'accepter la possibilité de l'échec et d'ouvrir les systèmes à des futurs qui excèdent leur propre existence.

Mots-clés : Métastabilité; Progrès technique; Philosophie de Gilbert Simondon; Cybernétique et homeostase; Gouvernamentalité néolibérale.

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Abstract

The article proposes a critical reopening of the question of progress based on the philosophy of Gilbert Simondon, by opposing the category of metastability to the notion of homeostasis derived from cybernetics. The authors argue that the modern idea of progress, inherited from mechanical determinism and reiterated by the cybernetic sciences, is “mythical” insofar as it reduces dynamic processes to fixed states and obscures the inventive and contingent dimension of becoming. This conception rests on a double ontoepistemological reduction: the reduction of reality to calculable structures and of science to operations of calculation, thereby sustaining a teleological and deterministic vision of historical development. Within this framework, cybernetics appears as the paradigm of the (hyper)modern condition and as the epistemological foundation of contemporary forms of government, in particular neoliberal governmentality, which privileges mechanisms of selfregulation, risk management, and the preservation of homeostatic equilibria. Such a model transforms progress into a continuous adaptation to the market’s “eternal present,” neutralizing conflict, subjectivity, and social invention. By contrast, the Simondonian notion of metastability conceives social systems as traversed by productive tensions and by a structural margin of indeterminacy. Progress then ceases to be understood as a march toward a predetermined end and comes to signify the invention of new goals, mediated by the relationship between humans, the world, and technical objects. Governing progress, in this sense, entails assuming the risk of normative invention, accepting the possibility of failure, and opening systems to futures that exceed their own existence.

Keywords: Metastability; Technical progress; Gilbert Simondon’s philosophy; Cybernetics and homeostasis; Neoliberal governmentality.

The question of progress plays a crucial role in the critique of the cybernetic notion of dynamic stability (“homeostasis”) and in the development of the category of “metastability,” as well as in the questioning of the very “mythical” idea of progress, born at the beginning of modernity from an «illusion of simultaneity» that reduces every apparent development to a fixed state: it «mistakes for a state what is only a stage». ¹ For Simondon, this idea of progress is “mythical” for two reasons. First, because it implies a «false entelechy» that conceals all alternative futures which, although never actualized, were potentially present at each “stage” of development («for [each] stage is still rich in virtualities»). Second, because it rests on an errone-

¹ Simondon, G., 2012, *Du mode d’existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 150.

ous conception of a universal chain of causes and effects that «masks the very reality of invention». ² The idea of progress is, in short, teleological and deterministic, like the mechanical worldview to which it is anchored: it depicts development as a fixed movement toward a prescribed final state that excludes the possibility of any radical change and of any invention. Simondon suggests that this mistaken understanding of progress—rooted in the imaginary representation of the natural order as «constant, necessary, universal, and analytic», first elaborated in the «deterministic era» ³—was always present in the cybernetic sciences of his time, along with the renewed attempt to combine determinism and teleology.

Emphasizing a substantial continuity between these positions, we will refer—beyond Lyotard—to a “(hyper)modern condition,” thus preferring the prefix *hyper-* to *post-* and using parentheses to underscore the link between the beginning of modernity and the contemporary “condition.” ⁴ What we see at work in the (hyper) modern condition is the same double ontoepistemological reduction that operated at the beginning of modernity: the reduction of reality to calculable structures (conceived in deterministic or probabilistic terms) and the reduction of science to an operation of calculation (algebraic or statistical). ⁵ On the one hand, reality is conceived deterministically in terms of structured elements that develop continuously according to fixed “laws” that predetermine the outcome of this development. On the other hand, this entire process is conceived as, in principle, fully describable in terms of combinations of elements within a preestablished syntax, such that the production of scientific knowledge becomes a process of verification and decision carried out within a field of research that is entirely mapped in advance on the basis of a set of preestablished “principles of proof.” ⁶

This double ontoepistemological reduction creates a fully formalizable system, whether in logical or mathematical terms, which reflects the uninterrupted chains of causes and effects linking each element or event to the deterministic whole to which it belongs. The idea of progress as the continuous development of knowledge and human society ultimately rests on an imagination of nature, including human nature, as a geometrical world that assumes the “primacy of being over becoming.” ⁷ The kind of scientific knowledge that supports such a vision can only be formalized on

² Simondon, G., 2012, *Du mode d'existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 150.

³ Simondon, G., 2012, *Du mode d'existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 150.

⁴ Simondon, G., 2015, [título/edição não informado no documento], [local], [editora], p. 274. (Inserir dados bibliográficos completos.)

⁵ Bardin, A.; Ferrari, M., 2023, “We Have Never Been Modern (Enough)”, in *Method & Theory in the Study of Religion*, [vol.], [n.], pp. [xx–xx], DOI: <https://doi.org/10.1163/15700682-bja10122>. (Inserir volume/número/páginas se aplicável.)

⁶ Bardin, A.; Ferrari, M., 2022, “Governing Progress: from Cybernetic Homeostasis to Simondon’s Politics of Metastability”, in *The Sociological Review*, vol. 70, n. 2, pp. 248–263.

⁷ Bailly, F.; Longo, G., 2006, *Mathématiques et sciences de la nature. La singularité physique du vivant*, Paris, Hermann.

the basis of the hypothesis that the calculability of the whole is possible, at least in principle, without exception. This generates an idea of progress conceived as the unfolding of a predetermined order over time. An initially given set of elements and rules (or natural “laws”) determines the deductive course of natural and human history. The principle guiding this development is the preservation and expansion of the initial order, and each moment in time is the necessary result of all preceding moments and the condition of the future.

In this sense, we consider cybernetics to be the paradigm of a crisis of the (hyper)modern condition. In several epistemic domains, paradigms initially derived from cybernetics are currently being reconsidered, and in some cases even rejected. The conception of the living being proposed by molecular biology, which ushered in the age of the genome⁸, is being challenged by organismal biology in light of the “historicity” and variability inherent to the organism itself⁹. Against the material/logical model that dominated neuroscience for several decades, a growing trend studies the brain and neurosynaptic structures through the concept of plasticity¹⁰. In mathematics, a reworking of modeling practices is underway, shifting the emphasis from “dynamic structuralism”¹¹ toward “differential heterogenesis.”¹² Such a crisis of the cybernetic framework is, in our view, symptomatic of the very limits of the “modern” condition, which remains present in its (hyper)modern version offered by cybernetics. Cybernetics celebrated the idea of a dynamic development aimed at producing increasingly complex forms of homeostatic equilibrium. We believe that moving beyond this stance, and beyond the idea of progress it implies, requires a critical emphasis on what cybernetics did not call into question, namely radical transformation and invention, including in the social domain.

Two radically different conceptions of progress are implicit in the cybernetic notion of homeostasis and in the Simondonian category of metastability. Beyond the diversity of theoretical positions attested by the complex history of cybernetic institutions and canon¹³, the cybernetic project has broadly contributed to the idea of progress as a developing order that has strongly influenced the human, political, and social sciences and, through them, has helped to rearticulate contemporary forms of governing society¹⁴. The model prescribes homeostasis, that is, the dynamic preservation of a stable equilibrium which, when disrupted, is called upon to be restruc-

⁸ Koyré, A., 1966, *Études galiléennes*, Paris, Hermann, p. 13, n. 5.

⁹ Kay, L. E., 2000, *Who Wrote the Book of Life? A History of the Genetic Code*, Stanford, Stanford University Press.

¹⁰ Soto, A. M.; Longo, G.; Noble, D., 2016, [título não informado no documento], [local], [editora] / [periódico, se for artigo], [vol.], [n.], pp. [xx–xx]. (Inserir referência completa.)

¹¹ Malabou, C., 2004, *Que faire de notre cerveau ?*, Paris, Bayard.

¹² Thom, R., 1972, *Stabilité structurelle et morphogénèse. Essai d'une théorie générale des modèles*, Reading, W. A. Benjamin.

¹³ Sarti, A.; Citti, G.; Piotrowski, D., 2023, *Differential Heterogenesis. Mutant Forms, Sensitive Bodies*, Berlin, Springer.

¹⁴ Ferrari, M., 2024b, “Di cosa parliamo quando parliamo di cibernetica (e perché è decisivo per la filosofia politica)? Qualche affondo per un lavoro a venire”, in *Etica & Politica*, à paraître.

tured according to the same invariant principles - an idea also fully operative within neoliberal governmentality. This (hyper)modern art of government is aptly described by the Belgian legal scholar Antoinette Rouvroy as «the art of not changing the world.»¹⁵ Neoliberal governance of progress in fact resolves itself into the incessant operation of protecting, managing, and promoting homeostatic mechanisms deemed capable of selfregulation, but in reality selected and—if necessary—replaced by others offering a more inclusive and more complex capacity for adaptation to the macro-mechanism/organism of the market. This macromechanism/organism constitutes the unquestioned horizon that assigns political power the task of providing a functional homeostatic equilibrium for its progressive implementation. With its “soft” determinism and immanent teleology, the market thus appears as a (hyper)modern version of the clockwork universe theorized by early mechanical science, and as the vector of a similar ontoepistemological reduction of social reality to a mathematized form. And this reduction still rests on a “mythical” idea of progress that fuels an illusion of automatism, concealing a plurality of paths by projecting the market’s “eternal present” onto all possible futures¹⁶.

The (hyper)modern renewal of the Hobbesian myth of the political “automation,” implemented by cybernetics, is, from Simondon’s perspective, at once an epistemological error and a political danger. Statistical mechanics prevents an adequate understanding of processes that involve a «margin of indeterminacy»,¹⁷ which can only be grasped through a «nonprobabilistic method,»¹⁸ and the myth of the automation surreptitiously becomes an objective whose actual realization would destroy the very system it was meant to save. A perfect “automatic” homeostasis, far from resolving the problem of social regulation, would replace the “tense” metastability of the social system with a type of dynamic stability that ultimately leads the system to exhaustion. The selfdestructive aim of automatism is in fact the elimination of any «margin of indeterminacy,» with the consequence that «there is no longer any possible variation; functioning repeats itself indefinitely,»¹⁹ until entropy consumes all remaining potentialities, leading to the «resolution of all tensions,» that is, to «death».

For Simondon, by contrast, a social system continues to function and to develop only insofar as it «preserves tensions within an equilibrium of metastability rather

¹⁵ Mirowski, P., 2002, *Machine Dreams. Economics Becomes a Cyborg Science*, Cambridge, Cambridge University Press; Amadae, S. M., 2003, *Rationalizing Capitalist Democracy. The Cold War Origins of Rational Choice Liberalism*, Chicago, The University of Chicago Press; Eyck, H., 2015, *Age of System. Understanding the Development of Modern Social Science*, Baltimore, Johns Hopkins University Press; Rodríguez, P. M., 2019, *Las palabras en las cosas. Saber, poder y subjetivación entre algoritmos y biomoléculas*, Buenos Aires, Cactus.

¹⁶ -Rouvroy, A., 2016, “L’art de ne pas changer le monde”, in *La Revue Nouvelle*, n. 8, pp. 44–50.

¹⁷ -Ferrari, M., 2024a, “La questione della regolazione nel vivente, nella macchina e nella società. Storia e critica della nozione cibernetica di organizzazione (sociale)”, in *Filosofia politica*, vol. 39, pp. 65–82.

¹⁸ -Simondon, G., 2012, *Du mode d’existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, pp. 185–203.

¹⁹ -Simondon, G., 2005, *L’individuation à la lumière des notions de forme et d’information*, Grenoble, Éditions Jérôme Millon, p. 549.

than annihilating them within an equilibrium of stability. »²⁰ Some critics of neoliberal governmentality, and in particular of its “algorithmic” version, have drawn on Simondon’s notion of metastability and have emphasized the importance of creating spaces of political conflict in which social invention—the “transindividual coupling” «between the inventive and organizational capacities of several subjects»²¹—can take place against the dominant neoliberal neutralization of subjectivity and conflict.²² The idea of “progress” may appear to align precisely with the position these theorists criticize, but we argue that Simondon’s category of metastability makes it possible to reopen the question of progress by taking a radically different direction. Under neoliberalism, the “spontaneous” pursuit of the market is paradoxically regarded as the objective of politics, which entails reducing progress to a sequence of preventive social adaptations to everemerging “local” risks within the naturalized framework of the market. Hence the neoliberal promotion of an ethics of risk management in which “government action” consists not merely in preventing the risk of a radically disruptive event, but in governing its very possibility. The “progressive” mechanisms of social reproduction governed by the open dynamics of the market thus fully absorb and neutralize a risk of an entirely different nature—namely, that represented by human inventiveness and imagination—which Simondon theorizes under the name of metastability.

The “risky” politics of metastability theorized by Simondon rests on the hypothesis that progress conceived as the «invention of new goals» makes radical novelty possible. This idea of progress is based on an understanding of social systems as intrinsically metastable, due to the «quite dangerous» automatism that characterizes human beings, who «always risk inventing and giving themselves new structures. »²³ This does not mean that Simondon resorts to a vitalist vision of the exceptional nature of life in relation to matter, nor to a form of social evolutionism; rather, he theorizes «invention» as an emergent property of the biotechnical nature of human beings and societies. Human «progress» takes place at the scale of the «metastable» system formed by «human beings and the world», mediated by technical objects.²⁴ Thus conceived, progress is neither «understood as a march in a direction fixed in advance» nor a process of the «humanization of nature», but rather a contingent process of the «naturalization of the human», mediated by the «technogeographical milieu»

²⁰ Simondon, G., 2017, [título/edição não informado no documento], [local], [editora], p. 152. (Inserir dados bibliográficos completos.)

²¹ Simondon, G., 2005, *L'individuation à la lumière des notions de forme et d'information*, Grenoble, Éditions Jérôme Millon, p. 204.

²² Simondon, G., 2012, *Du mode d'existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 342.

²³ Berns, T.; Rouvroy, A., 2013, “Gouvernementalité algorithmique et perspectives d'émancipation”, in *Réseaux*, n. 177, pp. 163–196; Stiegler, B., 2015, *La société automatique. 1. L'avenir du travail*, Paris, Fayard.

²⁴ Simondon, G., 2005, *L'individuation à la lumière des notions de forme et d'information*, Grenoble, Éditions Jérôme Millon, p. 347.

that humans continuously invent.²⁵ It is the result of a disharmonious relationship between biological models that vary over the very long term of natural history, the rapid accumulation of technoscientific innovations, and the social rhythm of culture, which attempts to render these processes compatible within its institutional present²⁶.

This idea of progress entails a political risk insofar as it leaves political practice without a safety net. Within this open dynamic, the emergence of finality—and thus of social invention—is grounded in the structural absence of control over technical reality, which nourishes the very possibility of human freedom: «Human beings free themselves from their condition of being subordinated to the finality of the whole by learning to make use of finality [...] so as not to have to passively endure a de facto integration.»²⁷ This is what, according to Simondon, cybernetics itself teaches us, yet while crucially missing the point that risk cannot be recuperated within the framework of existing social norms and modes of production. On the contrary, risk conceived as a structural margin of indeterminacy (“historicity”) is integrated into technical activity and constitutes a constant challenge to the entire “system of values.”²⁸ In this sense, we argue that Simondon’s category of metastability opens up the possibility of moving beyond the paradoxical confusion of determinism and teleology theorized in the (hyper)modern idea of progress, and ultimately shared by both cybernetics and neoliberalism, thereby calling for an alternative theory of government, that is, of politics itself.

Governing progress, in Simondon’s sense, would be part of a collective effort to invent mediations and solutions in which science and politics can play a crucial role, provided that they do not reduce the reality of nonsymbolic processes to their own—also scientific—imagination. This type of government has more to do with the «invention» of new technical and cultural possibilities than with the dreamed-of regulation of what already exists by a philosopherking.²⁹ Such inventions, of course, run the risk of failure, but this is precisely where their political value lies. Simondon’s idea of progress does not offer governmental action a safety net provided by the predictions of social theory. On the contrary, Simondon’s social theory attests that not taking the risk of normative invention amounts to suffering another kind of defeat: the defeat of accepting a supposedly “progressive” politics that in fact resists radical change. Simondon’s idea of progress instead demands a radical affirmation

²⁵ Simondon, G., 2012, *Du mode d’existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 214.

²⁶ Simondon, G., 2012, *Du mode d’existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 69.

²⁷ Simondon, G., 2014, [título/edição não informado no documento], [local], [editora], pp. 269–278. (Inserir dados bibliográficos completos.)

²⁸ Simondon, G., 2012, *Du mode d’existence des objets techniques*, nouvelle édition revue et corrigée, Paris, Aubier, p. 146.

²⁹ Simondon, G., 2005, *L’individuation à la lumière des notions de forme et d’information*, Grenoble, Éditions Jérôme Millon, pp. 342–343.

of change, which includes triggering processes that open systems to a future that exceeds their own existence. This ethical formula is intrinsically political: it requires the active consideration of death as an integral part of the functioning of a system, and the hypothesis of social invention at the core of a conception of progress to be formulated beyond the (hyper)modern condition. A margin of indeterminacy is inherent in such a gesture, and yet it is necessary in order to foster the “metastable” tension that enables scientific and political invention to challenge the automatic defense of a mythically established social order.

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