The Gentle Pessimism of Complexity. The Ecological Imaginary of "Resilience"

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L. Berlant defines "optimism" as «the force that moves you out of yourself and into the world in order to bring closer the satisfying *something* that you cannot generate on your own»[1]. A relation of optimism becomes "cruel" when the object that you desire is an obstacle to your wellbeing. «[A] sustaining inclination to return to the scene of fantasy» in which the desire is satisfied and the relationship with the object is secured, is the imaginative mechanism that hinders the subject in their possibility to gain consciousness.

In this article, I would like to suggest the possibility of recognizing a disposition of *gentle pessimism* in the way in which a certain ecological discourse – that of *resilience thinking* – while expressing a sensitivity to "complexity", faces the irruption of the "Anthropocene". By "gentle pessimism" I mean a *phantasmatic perspective*, as contrary in its relational presuppositions to cruel optimism as it is similarly tragic in its *hallucinatory character*, which *scotomizes, overemphasizes or distorts some fundamental aspects of a reality*.

Where optimism "moves you out of yourself", pessimism is inward-looking and non-explorative; where optimism brings closer "the satisfying something", pessimism does not rely on possible satisfactions external to one's own *Innenwelt*; where optimism believes in the fact that you cannot generate satisfaction "on your own", pessimism convinces you that every possible fulfillment can only depend "on your own" abilities, endurance, flexibility, and so on.

[1] L. Berlant, *Cruel Optimism*, Duke University Press, Durham-London 2011, pp. 1-2.

1. *Political-ecological imagining and neoliberalism*

> The account of the world envisaged and constituted by development agencies concerned with building resilient societies is one that presupposes the disastrousness of the world, and likewise one which interpellates a subject that is permanently called upon to bear the disaster. A subject for whom bearing the disaster is a required practice without which he or she cannot grow and prosper in the world. This is precisely what is at stake in the discourse of resilience. The resilient subject is a subject that must permanently struggle to accommodate itself to the world, not a subject that can conceive of changing the world, its structure and conditions of possibility, but a subject that accepts the disastrousness of the world it lives in as a condition for partaking of that world, which will not question the reasons why he or she suffers, but which accepts the necessity of the injunction to change itself in correspondence with the suffering now presupposed as endemic. The human here is conceived as resilient insofar as it adapts to rather than resists the conditions of its suffering in the world. To be resilient is to forego the very power of resistance[2].

The concept of "resilience" has described and prescribed, over the past two decades, the development of governmentality paradigms, socio-technical agendas and geopolitical strategies[3]. In a 2020 report of the European Commission[4], we read that «establishing a forward-looking culture in policymaking will be crucial for the EU to strengthen its capacity to deal with an increasingly volatile and complex world». To achieve this «foresight» power, «resilience» must be regarded «as a new compass for EU Policies», where "resilience" is defined as «the ability not only to withstand and cope with challenges but also to undergo transitions in a sustainable, fair, and democratic manner». Then we read passages like: «Europe's social and economic resilience rests on its population and its unique social market economy»; «Private and public investments are key to social and economic resilience and recovery»; «Europe's extensive global trade capacity underpins its geopolitical power and resilience». Resilience is adopted as the universal remedy that will help the EU to deal with matters such as the *intricacies* of globalization, the *unpredictability* of disasters and pandemics and the *complexity* of socio-ecological changes. It

[2] D. Chandler & J. Reid, *The Neoliberal Subject. Resilience, Adaptation and Vulnerability*, Rowman & Littlefield International, London 2016, p. 68.

[3] Cfr.: A. Bahadur & P. Thornton, *Reimagining resilience: bringing resilience, transformation and vulnerability closer for tackling climate change. Asian Cities Climate Change Resilience Network (ACCCRN)*, report financed by The Rockefeller Foundation, 2016.

[4] European Commission, *2020 Strategic Foresight Report: Charting the course towards a more resilient Europe*, COM (2020) 493.

comes natural to consider the emergence of a similar political-managerial paradigm in the context of a growing awareness across various international political scales and contexts about the need for the development of ecological "risk politics" – a subject this article won't have the opportunity to delve into deeply[5].

In short, resilience is seen as an epistemology of radical contingency and emergency, *a strategic shift of attention to the «unknown unknowns»*[6].

The success of resilience jargon in global climate politics and ecological sciences is due to the fact that it finds a way to deal with the «crisis of the imagination»[7] triggered by the global ecological crisis – i.e. the Western modern image of a balanced, harmonious and uniform "Nature" succumbs to the ever-increasing frequency of "anomalous", "unpredictable", "unprecedented" catastrophic events – through the socio-ecological implementation of complexity theory. If the ecological crisis teaches us that «no one knows what an environment can do»[8], resilience theory elevates this maxim to a method.

What interests me here about the concept of "resilience" is its ability to open up what I call an *ecological imaginary* or *phantasy*. Here, an "imaginary" is the process and product of an individual and/or collective effort of *making sense* of a reality or situation in an intuitive, synthetic conception.

C. Castoriadis writes: «Society must define its "identity", its articulation, the world, its relations to the world and to the objects it contains, its needs and its desires. […] The role of imaginary significations is to provide an answer to these questions»[9]. According to Castoriadis, "imaginaries" are spontaneous generators and vehicles of social-historical "answers" – or, we can say, "*meanings*" or "*significations*".

[5] U. Beck, *Genengifte: Die organisierte Unverantwortlichkeit*, Suhrkamp Verlag, Frankfurt am Main 1988, Eng. tr. by Amos Weisz, *Ecological Politics in an Age of Risk*, Polity Press, Cambridge (UK) 1995. Cfr. A. Balducci, D. Chiffi & F. Curci (a cura di), *Risk and Resilience. Socio-Spatial and Evironmental Challenges*, Springer Nature Switzerland AG, Cham 2020.

[6] D. Chandler, *Beyond neoliberalism: resilience, the new art of governing complexity*, in «Resilience», Vol. 2, n. 1, 2014, pp. 47-63.

[7] A. Ghosh, *The Great Derangement. Climate Change and the Unthinkable*, Penguin Books, London 2016.

[8] B. Latour, *Politiques de la nature. Comment faire entrer les sciences en démocratie*, La Découverte, Paris 2004, Eng. tr. by C. Porter, *Politics of Nature. How to Bring the Sciences into Democracy*, Harvard University Press, Cambridge (MA) 2004, p. 80.

[9] C. Castoriadis, *L'institution imaginaire de la société*, Seuil, Paris 1975, Eng. tr. by Kathleen Blamey, *The Imaginary Institution of Society*, Polity Press, Cambridge (UK) 1997, p. 147.

Another contemporary philosopher who, from a very different perspective, has placed "social imaginaries" at the center of his reflection establishing a terminological-conceptual standard, is C. Taylor. If my use of "imaginary" owes to Castoriadis its "instituting" nature, which establishes an *orientation* function for societies in their world (with respect to their desires, identities, conditions of knowledge and political action, etc.), understood simultaneously as a *world-making* function; Taylor helps us shift the question of the imaginary from one of "meaning", i.e. "content", to one of a more synthetic, synoptic, and spontaneously intuitive "making sense". A social imaginary «incorporates some sense of how we all fit together in carrying out the common practice. Such understanding is both factual and normative; that is, we have a sense of how things usually go, but this is interwoven with an idea of how they ought to go»[10].

However, the necessity of grappling with the proliferation of a jargon, that of "resilience", which we have already begun to see integrated into a system of governmentality (and therefore into a discourse about society that necessarily associates issues of cultural individuation and institutional generativity with a problematization of "power techniques" and dominant socio-technical paradigms), compels us to complement the definition of the imaginary as an orienting and originative "making sense" with an attention to the techno-political-managerial framework within which it sounds reasonable to speak of an "imaginary of resilience" – one that evidently is not expressed by a generic collectivity, a social class, a subculture, or an economic percentile, but rather by a system of models for rationalizing uncertainty, power practices, and managerial strategies. "Resilience thinking" opens up what S. Jasanoff calls a «sociotechnical imaginary», i.e. a socio-political "scene" or "worldview" in which certain technoscientific and managerial frameworks «become enmeshed in *performing and producing diverse visions of the collective good*»[11].

[10] C. Taylor, *Modern Imaginaries of Modernity*, Duke University Press, Durham-London 2004, p. 24. For a broader analysis of the uses that have been made of the concept of "imaginary" in philosophy and the social sciences in recent decades, cfr. C. Bottici, *Imaginal Politics. Images beyond Imagination and the Imaginary*, Columbia University Press, New York-Chichester 2014, pp. 32-53.

[11] S. Jasanoff, «Future Imperfect: Science, Technology, and the Imaginations of Modernity» in *Dreamscapes of Modernity. Sociotechnical Imaginaries and the Fabrication of Power*, S. Jasanoff & S.H. Kim (a cura di), The University of Chicago Press, Chicago-London 2015, pp. 1-33, p. 11.

Thus, my definition of "imaginary" does not instantiate a "making sense" understood as a publicly collective representation but rather as *a "worldview" that underpins and fuels risk and security policies* (whether public or private). Imaginaries are *displays of desired or undesired futures that define the conditions of knowledge, political action and technoscientific intervention over a world.*

But what is a specifically *ecological* imaginary? It is a way of making sense of ecological and socio-ecological networks and contingencies by "setting the scene" for a political epistemology; an ecological imaginary consists in the production of images of inclusion and exclusion, independency and dependency, symmetry and asymmetry that define the horizons of knowledgeability and political intervention within particular ecologies[12]. Yusoff and Gabrys discuss imagination as «a way of seeing, sensing, thinking, and dreaming the formation of knowledge, which creates the conditions for material interventions *in* and political sensibilities *of* the world»[13]. Through imagination, they contend, «things, discourses, subjects, and objects are framed, contested, and brought into being», and *the ecological crisis is thus an epochal problem that forces us to contest established «imaginative framings» and to configure new ones*[14].

In this article I will try to show how we can consider "resilience" as being at the heart of a neoliberal ecological imaginary. In doing so I follow Chandler and Reid, according to whom «the neoliberal subject» is «a resilient, humble, and disempowered being that lives a life of permanent ignorance and insecurity»[15]. Also, Walker and Cooper highlight «the importance of a critique of the proximity between the emergent discourse of "resilience" and contemporary neoliberal doctrines»[16].

A conservative, introverted, rigid, non-exploratory, autarchic ecological imaginary manifests itself in the failure to question the assumptions according to which a neoliberal worldview addresses the ecologi-

[12] See D.L. Levy & A. Spicer, *Contested Imaginaries and the Cultural Political Economy of Climate Change*, in «Organization», Vol. 20, n. 5, 2013.

[13] L. Yusoff & J. Gabrys, *Climate Change and the Imagination*, in «Wiley Interdisciplinary Reviews: Climate Change», n. 2, 2011. Cfr. M. Milkoreit, *Imaginary politics. Climate Change and making the future*, in «Elementa», Vol. 5, n. 62, 2017.

[14] Cfr. B. Schneider & T. Nocke, «Image Politics of Climate Change: Introduction» in *Image Politics of Climate Change. Visualizations, Imaginations, Documentations*, B. Schneider & T. Nocke (a cura di), transcript Verlag, Bielefeld 2014, pp. 9-25.

[15] Chandler & Reid, *The Neoliberal Subject*, cit., p. 3.

[16] J. Walker & M. Cooper, *Genealogies of resilience: from systems ecology to the political economy of crisis adaptation*, in «Security Dialogue», Vol. 42, n. 2, 2011, pp. 143-160.

cal question: a dogmatic belief in the ability of the market to find solutions to any problem, a full responsibilization of the individual for safety and adaptation that draws upon a vision of society as composed of «entrepreneurs of themselves»[17], a technocratic decisionism that transcends democratic deliberation; a resignation to the uncertainty, unknowability and unpredictability that dominate the relationship of individuals with a world that is perceived as external – and so, ultimately "manageable", but only by a super-individual, non-deliberative order[18]. An otherwise unsustainable "pessimism" of uncertainty and democratic helplessness in the face of the ecological crisis is to a certain extent polished, made *gentler* by "resilience thinking" thanks to the ideological use that can be made of the "complexity" championed by this discourse. When a "*complex* matter" is made a "*complicated* matter", then "the market" and "technical solutions" appear as those saviors that alone have the power to manage complex issues such as the rise in global temperature or the loss of biodiversity. Here the resilient subject simply accepts their defenselessness and relies on the providential intervention of super-democratic and super-human forces.

Resilience is an imaginative position which, by painting an epistemic and political imaginary centered on "complex adaptive systems", gives life to an ecological culture of *pessimism*[19], constant preparedness for the "worst possible scenario" in front of the uncertainty of the world; and *trust* in abstract and super-individual orders, formulas and strategies in their ability to deal with the uncertainty of a complex world. In exchange for this trust, the subject renounces their

[17] M. Foucault, *Naissance de la biopolitique. Cours au Collège de France (1978-1979)*, Gallimard-Seuil-EHESS, Paris 2004, Eng. tr. by Graham Burchell, *The Birth of Biopolitics. Lectures at the College de France. 1978-79*, Palgrave Macmillan, London 2008, pp. 101-157, 215-265.

[18] F.A. Hayek, *The Pretence of Knowledge*, in «The American Economic Review», Vol. 79, n. 6, 1989, p. 7.

[19] The relatively understudied subject of the relationship between perception of ecological "risk" in state-political decision-making and concepts such as "eco-anxiety", "climate despair" and "solastalgia" (and so the application of these concepts at an institutional and governmental level, *and not only* at a psychological or activistic one), can reveal itself conceptually stimulating in the attempt to deconstruct this "culture of pessimism" – while this article won't be able to focus on this topic. However, this endeavor should beware of the risk of a "psychologization" of the political imaginary that I am (only) trying to *metaphorize* as a "gentle pessimism". Cfr. P. Pihkala, *Anxiety and the Ecological Crisis: An Analysis of Eco-Anxiety and Climate Anxiety*, in «Sustainability», Vol. 12, n. 19, 2020; M. Hulme, *The conquering of climate: discourses of fear and their dissolution*, in «The Geographical Journal», Vol. 174, n. 1, 2008, pp. 5-16.

transformative ambitions or hopes with respect to their own socio-ecological system – the status quo that establishes their economic vulnerability, housing precariousness, exposure to environmental dangers, and so on – and embraces the logic of «*il faut s'adapter*»[20], extended as much to the «subpoliticization»[21] of the subject as to their socio-ecological helplessness.

2. *Adaptation, complexity and resilience*

According to Yusoff and Gabrys, «adaptation» is one of the prominent «temporal and spatial imaginative framings» nourishing the «new cultures of climate change»[22]. In international climate politics, "mitigation" of ecological harms and "adaptation" to inevitable catastrophes are traditionally the two main topics of discussion and conflict, but it can be argued that – symbolically, since the threshold of 400 ppm of CO_2 in the atmosphere was passed in 2013 – adaptation talking, rhetoric and prospects started living their renaissance[23]. *"Adaptation" is now the shibboleth of climate change politics*. Contemporary political imagination is held captive, for better or for worse, by the frame of "adaptation" – thus, in a way, admitting its crisis, its inability to "interrupt" an epochal catastrophe that has now escaped our control[24]. The often clumsy or insufficient attempts to adapt our cities, communities, habits, economies to uncontrollable environments that are the «monstrous» consequence, the paradoxical flipside of a modern desire to master and control the world[25]; are also performances of an imaginative culture that is already aware (sometimes apocalyptically, sometimes just not paying attention to the Stone Guest) of having triggered something irreversible and irreparable.

[20] B. Stiegler, *«Il faut s'adapter». Sur un nouvel impératif politique*, Gallimard, Paris 2019.

[21] U. Beck, *Was ist Globalisierung? Irrtümer des Globalismus — Antworten auf Globalisierung*, Suhrkamp Verlag, Frankfurt am Main 1997, Eng. tr. by Patrick Camiller, *What is Globalization?*, Polity Press, Cambridge (UK) 2000.

[22] Yusoff & Gabrys, *Climate change and the imagination*, cit.

[23] T. J. Bassett & C. Fogelman, *Déjà vu or something new? The adaptation concept in the climate change literature*, in «Geoforum», n. 48, 2013, pp. 42-53.

[24] V. Mathur & A. Mohan, *From Response to Resilience: Adaptation in a Global Climate Agreement*, in «ORF Occasional Paper», n. 76, 2015.

[25] H. Rosa, *Unverfügbarkeit*, Residenz Verlag, Salzburg-Wien 2018, Eng tr. by J.C. Wagner, *The Uncontrollability of the World*, Polity Press, Cambridge (UK) 2020.

With the Paris Agreement (2015), the "adaptation to climate change" discourse – while of course already present in previous international treaties – officially joined "mitigation" as a top priority in the global political agenda[26]. However, perhaps also due to the weakness of the Agreement in establishing a sufficiently articulated framework for adaptation[27], capable of resolutely responding to climate justice issues relating to the vulnerability of the most fragile ecosystems and parts of the global population; "adaptation", maybe even more than "mitigation", has become *the major terrain of ideological confrontation, critical elaboration and struggle for representation of the human and non-human oppressed ones*.

The most recent report of the International Panel on Climate Change (IPCC) defines "adaptation" as the following: «In *human systems*, the process of adjustment to actual or expected *climate* and its effects, in order to moderate harm or exploit beneficial opportunities. In *natural systems*, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects»[28]. "Adaptation" so distinguishes between a (human) society and a (non-human) nature; the gap or intersection between society and nature can be both the site of "problems" and "opportunities"; both society and nature respond to adaptation logics and the first can occasionally intervene to manage the adaptation of the second.

Resilience thinking, a "complexist" approach to socio-ecosystems science, grew as a discipline and as an "imaginary" precisely on the imaginative field of "adaptation"[29]. That is: "resilience" is a scientific, political and technological vision that aims at *making sense* of the issue of *adaptation* to the ecological crisis in a *complex* world ecology. It establishes a political and socio-technical imaginary, defines the conditions of knowledge, political action and technological interven-

[26] K. Mogelgaard & H. McGray, *With New Climate Plans, Adaptation Is No Longer an Overlooked Issue*, available online on the World Resources Institute website at https://www.wri.org/insights/new-climate-plans-adaptation-no-longer-overlooked-issue, November 24, 2015.

[27] R. Lyster, *Climate justice, adaptation and the Paris Agreement: a recipe for disasters?*, in «Environmental Politics», Vol. 26, n. 3, 2017, pp. 438-458.

[28] IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Cambridge University Press, Cambridge (UK)-New York, pp. 2897–2930, p. 2898.

[29] Cfr. D. Chandler, *Resilience. The Governance of Complexity*, Routledge, New York 2014; K. Brown, *Resilience, Development and Global Change*, Routledge, New York 2016; P. Bourbeau, *On Resilience. Genealogy, Logics, and World Politics*, Cambridge University Press, Cambridge (UK)-New York 2018.

tion in a global ecology designed over a widespread necessity of "adaptation" (of communities to climatic catastrophes, of ecosystems to sudden derangements).

"Resilience" is thus way more than a mediatic and electoral buzzword[30]. Its innovating approach to so-called "complex adaptive systems" was born in contrast to a traditional scientific and popular ecological worldview: that of a single "natural balance" that would determine the health of ecosystems, thus embracing a mechanistic, determinist and reductionist viewpoint that quantified the wellbeing of a system through simplifying, top-down statistical criteria[31]. From this perspective, nature is inherently stable, it would recover from any kind of shock and it would self-repair into a static, ideal equilibrium after any catastrophe. We just have to keep in mind its "maximum sustainable yields" and its "carrying capacity". Against this view, C.S. Holling[32] and colleagues[33] started imagining ecosystems as characterized by a strong co-dependency of *human and non-human factors* (1); intrinsically *uncertain* (2) in their functioning and outcomes; characterized by complex evolutionary *dynamisms* (3); composed of multi-scalar *feedback loops* (4) that link micro-organisms, macro-organisms, soil resources in *transformative and adaptive holistic networks* (5). In light of this, we can say that the following three dimensions define the "resilience" of an ecological or socio-ecological system: its ability to A) "bounce back" after traumas, B) dynamically adapting to the new given conditions and to developmental uncertainty, C) thus resorting, if necessary, to a transformation of the structures that define the equilibrium conditions of the system[34], that therefore are always multiple, dynamic, and resulting from an *irreversible* process of structuration[35]. In sum, resilience theory aims at dealing with ecological change by analyzing how *complex ecosystems* are able to *adapt* to new disturbances.

[30] B.H. Walker, *Resilience: what it* is *and what is* not, in «Ecology and Society», Vol. 25, n. 2, 2020.

[31] J. Kricher, *The Balance of Nature. Ecology's Enduring Myth*, Princeton University Press, Princeton 2009.

[32] C.S Holling, *Resilience and stability of ecological systems*, in «Annual Review of Ecology and Systematics», n. 4, 1973, pp. 1-23.

[33] C. Folke, *Resilience: The emergence of a perspective for social-ecological systems analyses*, «Global Environmental Change», n. 16, 2006, pp. 253-267.

[34] M. Leach, *Re-framing Resilience: A Symposium Report*, STEPS, Brighton, Working Paper n. 13, 2008.

[35] I owe this tripartition to: Brown, *Resilience, Development and Global Change*, cit.

Thus, for example, an intervention aiming at "facilitating" the adaptive capacity of a coral reef – built by symbiotically intertwined life forms and representing an indispensable part of socio-ecological systems that feed almost one billion people[36] – faced with the threats of water acidification, ocean warming, overfishing and pollution, will aim to increase the "resilience" of the coralline holobiont through «activities that affect the genetics, reproduction, physiology, ecology, or local environment of corals»[37]. To make sure that the barrier «responds, acclimatizes, and adapts to stress», the intervention will adopt strategies such as «shifting population structures, altering genes, or changing the composition of symbiont and microbiome communities»[38]. The approach will assume (1) *the impossibility of separating a human factor from a non-human one*[39], recognizing the co-dependence between human activities and living ecosystems, addressing these socio-ecosystems as characterized by such ancient and subtle relationships to be able to trigger unpredictable effects. This means an assumption of (2) *uncertainty*, which therefore undertakes to "facilitate" the (3) *dynamics* that characterize the life of the system, thus trying to "put on the right path", to optimize those (4) *feedback loops* between entities and scales that make up the system, thus hoping to trigger a (5) *transformation* that would express the adaptive capacities of the human and non-human communities in question.

This is how the "imaginary" of resilience – the latter's effort of *making sense* of a reality or situation in an intuitive, synthetic conception – depicts universal, trans-specific, socio-natural "adaptation" by means of "complexity". A theory of complexity [40] means the shift from an interest in the research of "eternal", "universal", "deterministic" and "reproducible" laws of the Universe; to an attention to *irreversible*, *unpredictable* and *fluctuating* processes that,

[36] A.S. Wong et al., *An assessment of people living by coral reefs over space and time*, «Global Change Biology», n. 28, 2022, pp. 7139-7153.

[37] National Academies of Sciences, Engineering, and Medicine, *A Decision Framework for Interventions to Increase the Persistence and Resilience of Coral Reefs*, The National Academies Press, Washington DC 2019, p. 1.

[38] *Ibid.*

[39] A. Dwiartama & C. Rosin, *Exploring agency beyond humans: The compatibility of Actor-Network Theory (ANT) and resilience thinking*, in «Ecology and Society», Vol. 19, n. 3, 2014.

[40] J. Urry, *The Complexity Turn*, in «Theory, Culture & Society», Vol. 22, n.5, 2005, pp. 1-14; P. Cilliers, *Complexity and Postmodernism. Understanding Complex Systems*, Routledge, New York 1998.

nevertheless, can *self-organize* in coherent, hierarchical systems[41]. In an apparently paradoxical way, complex systems – like living organisms, ecosystems or car traffic – consist in a permanent state of *microscopic disorder* that, when the interactions between its components overcome a certain "threshold", manifests "emergent" properties that result in a *macroscopic order*. Following this idea, *everything* that surrounds us is a "complex system": depending on our perspective, everything is unstable, everything is "dissipative" (exports entropy in order to achieve order), and everything has its "historicity" – that is, undergoes irreversible transformations[42]. We cannot fully retro-engineer the non-linear process that led to the emergence of new macroscopic properties, because everything happened in a regime of probabilities across multiple spatiotemporal scales. Grasping the whole is a hopeless enterprise: every knowledge is situated – shedding light on a layer, it inevitably "undoes" numerous other layers, which cannot be kept all together within a single perspective. This establishes a co-dependency between the observer and the system, where the former has to "explore" the latter with "pertinence", "dialogue" with it, but never pretending to be "certain" about any of the resulting propositions[43].

Order, evolution, life, institution, never happen in a state of "natural balance". Rather, they only originate *far from equilibrium*, that is, *at the moment when systems are required to "adapt"*[44]. Resilience's interest in "complex adaptive systems" thus means the acknowledgment by scientific ecology of the necessity to find the criteria of life, preservation and sustainability *not* in abstract "stability" indexes, *but* in a dynamic and irreversible irradiation of emergent properties. Resilience thinking does not make assumptions about the "true" equilibrium, but it pays attention to the system's ability to preserve its vital structures *even* passing through a constant process of destabilization and restructuration. Designing socio-environmental models struc-

[41] I. Prigogine & I. Stengers, *La Nouvelle alliance: métamorphose de la science*, Gallimard, Paris 1978; Eng. tr. *Order Out of Chaos: Man's New Dialogue with Nature*, Verso Books, London-Brooklyn (NY) 2018.

[42] R. Riedl, *Strukturen der Komplexität: Eine Morphologie des Erkennens und Erklärens*, Springer, Berlin-Heidelberg, 2000, Eng tr. by M. Stachowitsch, *Structures of Complexity. A Morphology of Recognition and Explanation*, Springer Nature Switzerland AG, Cham 2019.

[43] G. Bocchi & M. Ceruti (a cura di), *La sfida della complessità*, Bruno Mondadori, Torino 2007.

[44] Prigogine & Stengers, *La Nouvelle alliance*, cit.

tured in «nested series of adaptive cycles»[45], resilience scientists imagine a complex world when the "adaptive cycle" «is [the] fundamental unit for understanding complex systems, from cells, to ecosystems, to societies, to cultures»[46].

If it is true that, following Rupert Riedl[47], complexity always calls for a *morphology*, always pushing us to rely on our ability to employ images and insights, then "resilience" is the contemporary ecological imaginary that attempts this morphology, this *making sense of the whole of complexity through images of systemic adaptation*.

3. *The Gentle, Neoliberal Pessimism of Resilience*

Resilience makes sense of the complexity of the ecological globe within the framework of "adaptation". This ecological imaginary depicts a world of human/non-human hybrid systems, traversed by an "uncertainty" that forces the "situatedness" and limited generalizability of every epistemic effort. Socio-ecological systems are analyzed and managed with respect to their condition of "distance from equilibrium" and permanent exposure to structural risks which, nevertheless, continuously lead them to transform and self-organize in optimal "adaptive" ways. As a governance and management practice[48], resilience thinking describes and prescribes the processes by which a system can or must "bounce back" after traumas, also making itself as adaptive as possible in the face of the pressing possibility of future traumas, and, to do so, if necessary, making itself capable of transforming its structures and normal conditions of stability.

Once more, I here interpret "pessimism" as an inward-looking, conservative and non-explorative disposition that does not rely on possible satisfactions coming from outside of one's own system and believes that (melancholy) satisfactions can only be self-sufficiently generated within the system itself – be it economic, ecological, and so on. Now, in what sense does the imagery of resilience express a "gen-

[45] L.H. Gunderson & C.S. Holling, *Panarchy. Understanding Transformations in Human and Natural Systems*, Island Press, Washington DC 2002.

[46] C.S. Holling, *Understanding the complexity of economic, ecological, and social systems*, in «Ecosystems», n. 4, 2001, pp. 390-405, p. 393.

[47] Riedl, *Strukturen der Komplexität*, cit.

[48] A. Duit et al., *Governance, complexity, and resilience*, in «Global Environmental Change», Vol. 20, n. 3, 2010, pp. 363-368.

tle pessimism"? And in what sense would this imaginative disposition be linked to neoliberalism?

It would be tempting to say that resilience imagining seems to embrace the famous Jamesonian motto: «it is easier to imagine the end of the world than to imagine the end of capitalism»[49]. Resilience's way to follow this dictum would be by «imagining everything that could go wrong»[50]. From this perspective, resilience fosters a «culture of preparedness», instances a disposition of «apprehension of the future»[51]. This "fatalistic" reading of the concept allows us to recognize its easy integration into that "apocalyptic imaginary" which, according to E. Swyngedouw, dominates contemporary climate politics: «our ecological predicament is sutured by millennial fears, sustained by an apocalyptic rhetoric and representational tactics, and by a series of performative gestures signalling an overwhelming, mind-boggling danger»[52]. The foreseeable outcome of this fatalism, according to Mann and Wainwright, would be the world pushed toward a global "Climate Leviathan": «adaptation projects to allow capitalist elites to stabilize their position amidst planetary crises»[53]. In this context of adaptation of the political-economic globalist order to ecological collapse, "resilience" represents the "ontopolitical" prerequisite for developing governmental models for a complex world such as that of the Anthropocene[54].

For the purposes of this article, however, I would not go this far. The "pessimism" to which I refer is not this apocalyptic fatalism, and my hinting at the neoliberal hues of resilience does not aim to contribute directly to a critical theory of neoliberal globalization. Rather, I would like more modestly to present resilience as a theoretical device that opens up ways of imagining the complex world of the Anthropocene which manifest an «intuitive ideological fit with a neoliberal philosophy of complex adaptive systems»[55]. In other terms, I am following Chandler and Reid in associating – albeit not in a compre-

[49] F. Jameson, *Future City*, in «New Left Review», n. 21, 2003, pp. 65-79, p. 76.
[50] M. Neocleous, *Resisting resilience*, in «Radical Philosophy», n. 178, 2013.
[51] *Ibid.*
[52] E. Swyngedouw, *Apocalypse Forever? Post-political Populism and the Spectre of Climate Change*, in: «Theory, Culture & Society», Vol. 27, n. 2-3, 2010, pp. 213-232, p. 218.
[53] G. Mann & J. Wainwright, *Climate Leviathan. A Political Theory of Our Planetary Future*, Verso, London-Brooklyn (NY) 2018.
[54] D. Chandler, *Ontopolitics in the Anthropocene. An Introduction to Mapping, Sensing and Hacking*, Routledge, New York 2018.
[55] Walker & Cooper, *Genealogies of Resilience*, cit., p. 144.

hensive or universal manner, but in alignment with the specific scope and viewpoint of this article – the "resilient subject" with a "neoliberal subject".

For a definition of the latter, we can follow W. Brown: «A subject construed and constructed as human capital both for itself and for a firm or state […] at persistent risk of failure, redundancy and abandonment through no doing of its own, regardless of how savvy and responsible it is. Fiscal crises, downsizing, outsourcing, furloughs – all these and more can jeopardize us, even when we have been savvy and responsible investors and entrepreneurs»[56]. The systematic responsibilization of the subject in front of the threatening complexity of the world coincides with authoritative rule by experts and bureaucrats, "accountable" self-management with post-democratic managerialism. Neoliberal subjectivation is therefore interpreted by many authors as a "governmentality paradigm", a way of «*conduire des conduites*»[57]: «a *regime* in which the singular human capacity for responsibility is deployed to constitute and govern subjects and through which their conduct is organized and measured, remaking and reorienting them for a neoliberal order»[58]. Resilience thinking, in my reading, portrays a socio-technical ecological imaginary that aligns particularly well with the context of a neoliberal governmental paradigm.

Let's look at some examples. In 2021, the World Bank released a report titled "Guinea-Bissau: Building Resilience for Vulnerable Populations"[59]. Guinea-Bissau is a country characterized by a growing and already profound climatic vulnerability, which manifests itself in droughts, floods and coastal erosion. After a careful analysis of the problems and the already existing political and extra-political social assistance programs, the report provides some recommendations for improving the latter. We can read, for example: «increase in government leadership, institutional alignment, and resources», «mecha-

[56] W. Brown, *Undoing the Demos: Neoliberalism's Stealth Revolution*, ZONE BOOKS, Brooklyn (NY) 2015, p. 37. Cfr.: P. Dardot & C. Laval, *La nouvelle raison du monde: Essai sur la société néolibérale*, La Découverte, Paris 2009, Eng. tr. by G. Elliott, *The New Way of the World: On Neoliberal Society*, Verso, London-Brooklyn (NY) 2013, Chapter 9.

[57] M. Foucault, «Le sujet et le pouvoir» in *Dits et écrits, II. 1976-1988*, Gallimard, Paris 2001, p. 1056; Eng tr. by M. Foucault and L. Sawyer, *The Subject and Power*, *Critical Inquiry*, Vol. 8, n. 4, 1982, pp. 777-795.

[58] Brown, *Undoing the Demos*, cit., p. 133.

[59] World Bank, *Guinea-Bissau: Building Resilience for Vulnerable Populations*, The World Bank, Washington DC 2021.

nisms to monitor social assistance expenditures», the setting of fora where «participants would exchange information and coordinate programs around particular goals», and so on. In this articulate managerial assessment of a complex intersection of problems and "systems" (climate, education, health...), it is surprising to see how the participation in this "complex adaptive system" of factors such as the inclusion of Guinea-Bissau in the international markets of raw materials and Portuguese colonialism, which ended in 1973, however leaving the country in conditions of political instability and economic backwardness; such and similar factors, are either completely "scotomized" from or uncritically normalized within the picture. The same goes for a United Nations intervention in Sao Tome and Principe for how it is richly analyzed by M. Mikulewicz[60]. He writes about the project staff trying to establish an «adaptive consensus» among the population, painting a securitized picture of the agricultural system's vulnerabilities confronting climatic changes, reducing the country's "maladaptive" condition to factors such as lack of technical training, community-managed technologies to face floods and droughts, absence of community safety nets and solar freezers; thus overlooking, in their representation of "the problems", *systemic* exploitative labor relations, socio-economic and political inequalities, women's subordination, and so on. Troubles – at least, the ones spotted by the project staff – will persist «if smallholders do not start to think of themselves as entrepreneurs, conceptualize their livelihoods in terms of climate resilience, and follow the technical advice provided»[61]. Thus, Mikulewicz harshly concludes:

> [R]esilience-based approaches securitize climate change and create oppressive ecologies of fear, legitimizing the growing control of experts and technocrats proficient in the resilience trade over those deemed too vulnerable to adapt to the impending impacts of climate change on their own. Resilience and resilience thinking can thus be seen as a nihilism that works to depoliticize development and deprive local people of their political power and subjectivity[62].

The "pessimistic" character of this imagination is linked to a limit that it imposes on its own transformative capacity: everything can be transformed to be made more adaptive, any condition of normality or

[60] M. Mikulewicz (2019), *Thwarting adaptation's potential? A critique of resilience and climate-resilient development*, in «Geoforum», n. 104, pp. 267-282, p. 273.
[61] Ivi, p. 273.
[62] Ivi, p. 269.

stability can be renegotiated, *except* the political-economic foundation of the neoliberal status quo, which prescribe market-centered solutionism and post-political managerialism[63]. «[R]esilience thinking is a power-laden framing that creates certain windows of visibility on the processes of change, while obscuring others»[64]. It seems that the imaginative horizon of resilience is structurally prevented from identifying a fundamental maladaptive *system* which fosters the very market functionalism and technocratic governance that informs its own worldview and practices. M. Taylor writes:

> [W]ithin resilience analysis, the wider dynamics of capitalist commodity exchange are portrayed shallowly as forces external to the arbitrarily constructed bounds of socio-ecological systems rather than integral elements of these very relations. At times it seems that resilience analysis was curiously written for a pre-capitalist world. […] It is precisely this arbitrariness of systemic boundaries and the unwillingness to unlock questions of power that makes the resilience perspective so amenable for political purposes aimed at safeguarding the status quo[65].

If a problem arises, the logic of the market and/or a group of experts will take care of solving it. It will be a problem whose solution can be found *within* the grammar of some complex adaptive system – a "*kosmos*" characterized by a degree of complexity that the critical mind cannot master[66].

Depriving the subject of their critical and political power and overloading them with responsibilities for a flexible adaptation (putting

[63] Among the "recommendations" of one of the many "policy briefs" of the United Nations, we read: «Exploring risk-informed, innovative and sustainable financing systems such as green bonds, public-private-people partnership (PPPP), and crowdfunding including forecast-based financing with coordinated multi-hazard early warning systems»; «It is important to build capacities and change mindsets of communities and stakeholders to be able to accurately anticipate, cope with, resist and recover from disaster risk situations. Public servants need to embrace an agile mindset and develop competencies in systems-thinking to perceive the links, cause-effect relations, and dynamics affecting sustainable development and risk-informed adaptation to maintain effectiveness when experiencing change» (S. Danaa & Ana Thorlund, *Strengthening Disaster Risk Reduction and Resilience for Climate Action through Risk-informed Governance*, UN Department of Economic and Social Affairs, Policy Brief n. 139, 2022)

[64] M. Cote & A.J. Nightingale, *Resilience thinking meets social theory: Situating social change in socio-ecological systems (SES) research*, in «Progress in Human Geography», Vol. 36, n. 4, 2011, pp. 475-489, pp. 484-485.

[65] M. Taylor, *The Political Ecology of Climate Change Adaptation. Livelihoods, agrarian change and the conflicts of development*, Routledge, New York 2015, pp. 77-78.

[66] S. Velotti, *The pretense of an economic cosmos and the aesthetic sense: some reflections on "spontaneous orders"*, in «Studi di Estetica», 2019.

them «"in the driving seat" when in reality the direction of the journey has already been decided»)[67], comes with reassuring them in the existence of a friendly cosmology in which every precariousness, catastrophe or bewilderment finds meaning and solution. We should be *pessimistic* about the uncertainty of a risky world, but *confident* in the technical-economic order that will rescue us. Resilience paints «a picture of a world that is beyond our control»; this «might create a sense of resignation. But the resilience argument is that even if we cannot change the world, we can survive better through knowing how to adapt»[68]. But here lies the inner "cruelty" of resilience thinking. Unequal distribution and control of resources, power asymmetries and violent practices of subjectivation, all make complex systems adaptive for a few and maladaptive for many others[69]. Natural disasters, for example, don't happen in a political and social vacuum. The disastrous effects of Hurricane Katrina (2005) on African American communities in New Orleans – a strongly segregated city, with 37 percent of the African American population living in poor neighborhoods – are a classic case study on how natural disasters' impact mirrors socio-economic inequalities[70]. Some years later, posters appeared all around the city: «Stop calling me resilient. I'm not resilient. Because every time you say, "Oh, they're resilient", you can do something else to me»[71]. It does not make adaptive sense to focus exclusively on disasters and techno-managerial shortcomings of the population, if the root causes of maladaptive socio-ecological systems for the poor and subordinates remain outside the systemic representation of risk and adaptation[72]. After all, what is the point of adapting through «a system that by its very nature systematically produced vulnerability?»[73].

The reactive nature and managerial approach of resilience thinking betray a deeper structural problem of contemporary adaptation poli-

[67] J. Joseph, *Resilience as embedded neoliberalism: a governmentality approach*, in «Resilience», Vol. 1, n. 1, 2013, pp. 38-52, p. 48.

[68] Ivi, p. 42.

[69] M.J. Watts, (2015), «Now and then: the origins of political ecology and the rebirth of adaptation as a form of thought» in *The Routledge Handbook of Political Ecology*, T. Perreault, G. Bridge, J. McCarthy (a cura di), Routledge, New York 2015, pp. 19-50.

[70] Brown, *Resilience, Development and Global Change*, cit., pp. 186-193.

[71] N. Klein, *This Changes Everything. Capitalism Vs. The Climate*, Simon & Schuster, New York 2014.

[72] R. Cretney, *Resilience for Whom? Emerging Critical Geographies of Socio-ecological Resilience*, in «Geography Compass», Vol. 8, n. 9, 2014, pp. 627-640.

[73] Bassett & Fogelman, *Déjà vu or something new?*, cit., p. 46.

tics, a problem that fundamentally concerns the narrowness, conservatism, pessimism of the underlying ecological imaginary. The latter consists in «a social imaginary of individuals, households, communities, regions, economic sectors and nations with different vulnerabilities and adaptive capacities in the face of an external climate»[74]. The representation of "climate" as an external threat lays the ground for a «biopolitical impetus to make climate change governable», whereas a technocratic politics, moving «within institutional parameters», erects «a considerable barrier to critical thinking about climatic change and social transformation». An external natural ecology is an ultimately governable landscape, either by wisely allocating resources or by properly "rationalizing" the field of intervention. However, these «imaginaries of resilience» are *essentially* unable to confront the "Anthropocene"[75] – which is *not* a mere global "shock", but, following I. Stengers, «the intrusion of [a] type of transcendence [that] makes a major unknown, *which is here to stay,* exist at the heart of our lives»[76]. Therefore, Taylor claims: «Engaging contemporary climatic change is not about adapting to a changing external environment. It is about challenging how we produce ourselves. Instead of a politics of adaptation, we need a politics of producing ourselves differently»[77].

We live in a complex world; we are perpetually exposed to nonlinear dynamics and unpredictable catastrophes. Resilience thus imagines an ecology of generalized risk and sees the only possible way out in a movement of introversion: bouncing back, finding refuge in the parameters of a techno-economic system that imposes the transformability of everything *but itself*. In this post-political cosmology, neoliberal climate politics finds its own safe space of "adaptation". A phantasy binds us to seek within "ourselves", in the status quo, the only possible satisfaction, excluding the chance that this can only consist in the radical transformation of the status quo. A "resilient" condition manifests itself as a cruel introversion, masked by a phantasy that *sublimates* the uncertainty and precariousness of the individual.

[74] Taylor, *The Political Ecology*, cit., p. XII.

[75] D. Chandler, «The End of Resilience? Rethinking Adaptation in the Anthropocene» in *Resilience in the Anthropocene. Governance and Politics at the End of the World*, D. Chandler, K. Grove, S. Wakefield (a cura di), Routledge, New York 2020, pp. 50-67.

[76] I. Stengers, *Au temps des catastophes. Résister à la barbarie qui vient*, La Découverte, Paris 2009, Eng. tr. by A. Goffey, *In Catastrophic Times: Resisting the Coming Barbarism*, Open Humanities Press, London 2015, p. 47.

[77] Taylor, *The Political Ecology*, cit., pp. 18-19.

"Adaptation" can be an opportunity to criticize those socioeconomic and political structures that fuel global inequalities, the overexploitation of the Earth and the overexposure of communities to risks and disasters[78]. "Adaptation" should be political and contested[79]. Complexity must always be approached critically[80], systems analysis must be *situated* in contexts of inequality and domination. The only way out of complexity is *through* complexity[81]: liberal functionalism and techno-managerial "views from nowhere" do not really embrace complexity, but simply assume the right to elaborate solutions on matters that are supposed to be "too complicated" for contested processes of critical deliberation.

Abstract

Il concetto di "resilienza" è oggi al centro di paradigmi di governamentalità, agende di sviluppo e strategie geopolitiche – ma, nel contesto delle politiche di "adattamento" ai cambiamenti climatici, il "resilience thinking" risalta in tutta la sua influenza e forza normativa. In questo articolo tento di mostrare come la resilienza sia un'originale epistemologia politica che apre ad un nuovo "immaginario ecologico". Vorrei suggerire che la disposizione immaginativa della resilienza, promuovendo un approccio scientifico e politico alla "complessità" socio-ecologica, dipinga uno scenario di adattamento esistenziale e sociale alla crisi ecologica le cui tinte neoliberali sono evidenti e problematiche. Mi riferisco pertanto all'immaginario ecologico della resilienza come ad un "pessimismo gentile", sottolineando la sua integrazione nello status quo economico-politico e la sua incapacità di immaginare al di là dei modelli governamentali della globalizzazione neoliberale.

The concept of "resilience" is nowadays at the core of governmentality paradigms, development agendas and geopolitical strategies – but in the context of "adaptation" policies to climate change, "resilience thinking" emerges in all its influence and normative power. In this article, I try to show how "re-

[78] M. Pelling, *Adaptation to Climate Change*, Routledge, Abingdon Oxon 2011.

[79] S.H. Eriksen, A.J. Nightingale, H. Eakin, *Reframing adaptation: The political nature of climate change adaptation*, in «Global Environmental Change», n. 35, 2015, pp. 523-533.

[80] P. Cilliers, *Critical Complexity. Collected Essays*, De Gruyter, Berlin 2016.

[81] W. Rasch & C. Wolfe, «Introduction: Systems Theory and the Politics of Postmodernity» in *Observing Complexity. Systems Theory and Postmodernity*, W. Rasch, C. Wolfe (a cura di), University of Minnesota Press, Minneapolis 2000, pp. 1-32.

silience" is a recently developed political epistemology that opens up a new "ecological imaginary". I would like to suggest that the imaginative disposition of resilience, promoting a scientific and political approach to socio-ecological "complexity", paints scenarios of existential and social adaptation to the ecological crisis whose neoliberal hues are prominent and problematic. I thus refer to the ecological imaginary of resilience as a "gentle pessimism", highlighting its integration into the economic-political status quo and its inability to imagine beyond the governmental models of neoliberal globalization.

Parole chiave: resilienza, ecologia, immaginario, complessità, neoliberismo, pessimismo.

Key words: resilience, ecology, imaginary, complexity, neoliberalism, pessimism.