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The Anthem Companion to Niklas Luhmann

Edited by Ralf Rogowski



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Chapter 9

NIKLAS LUHMANN AND CRITICAL SYSTEMS THEORY

Kolja Möller and Jasmin Siri

Introduction

It is a widespread assertion in sociology and social theory that systems theory is uncritical. This belief is articulated by theories that call upon society to change (itself, its structure, its inner logics). We want to argue that these assertions conceal the critical potentials which are inherent in Luhmann's social systems theory. Admittedly, Luhmann was critical about critical theory and embarked on a controversy with Jürgen Habermas and others about the state of critical theory in the 1960s and 1970s.¹ His point of departure was that critical theory was still indebted to 'old-European assumptions' about how societies are evolving.² He sought to demonstrate that critical theory reproduced distinctions – such as between the 'part' and the 'whole' or 'below' and 'above' – which were already melting under an increased functional differentiation of social systems in modern society. Drawing upon Talcott Parson's sociology and evolution theory, he argued that modern society emerged from a rather anarchic social evolution and, thereby, established a plurality of self-referential social systems that are not reducible to a unitary mode of domination.³ Based on these insights, Luhmann formulates a critique of society which may be deemed less appealing, less self-assured and void of gestures that support a sociologist's self-image of an impressive public intellectual, but – as we argue in the following – it takes up motifs of social critique in the tradition of Hegel, Marx and Adorno and classical sociology such as Simmel and Weber. Not the least, a whole strand of critical systems theory from the 2000s onwards investigated into this potential of Luhmann's theory – be it through clarifying the notion of critique in his work, through combining it with Marxism, post-structural thinking or the legacy of the early Frankfurt School – arguing that modern society calls for different forms of sociological critique.⁴

In this chapter, we focus on a reconstruction of three characteristic dimensions of critical systems theory in order to demonstrate how these resources can contribute to a critique of modern society that operates immanently from within the social. Most importantly, we emphasise how social critique remains connected to a robust social theory instead of collapsing into a free-standing gesture. The first section introduces Luhmann's perspective on voluntaristic approaches to social critique. These approaches, he argues, fall prey to an inappropriate account of functional differentiation. The second section demonstrates that systems theory overcomes these shortcuts through pursuing a functional analysis which allows to criticise social practices. The third section discusses the notion of structural coupling of social systems. It understands this concept as a formalised approach for the diagnosis of processes of social crisis that is able to distinguish between potentially regressive and progressive reaction patterns. The chapter concludes that one of systems theory's most prominent accomplishments has been to uncover relations between social research and critical practices which acknowledge their entanglement in the existing landscape of functional differentiation.

Voluntarism and the Problem of Sociological Critique

Niklas Luhmann insisted that sociological thought often overemphasises an integrated social whole and uses in an excessive manner normative-voluntaristic assumptions that overlook the complexity of societal differentiation.⁵ Similar to Theodor W. Adorno's notion that the 'the specifically social [...] consists precisely in the imbalance of institutions over men',⁶ Luhmann demonstrates the irrelevance that feelings and diverse states of human consciousness have compared to the inner logics of social systems that shape our society. Humans can raise claims, express outrage, feel humiliated or call for change, but functional differentiation makes it less likely that such communications are taken into account. Rather, it releases humans from the personal limitations of social differentiation in former forms of society such as integration into a family or clan in a segmentally differentiated society.⁷

In modern society, the 'in-dividual' is divided. The function systems of modern society perceive humans not 'as a whole' but in specific systemic roles such as priest and laic (system of religion) or teacher and pupil (education system).⁸ The inclusion of humans via these roles is never permanent and is often (besides contexts such as the family system) carried out by organisations that address the system-relevant side of a human's life. The term 'person' addresses this insight in the 'individuality of exclusion'.⁹ Persons are conceived as a bundle of – depending on the actual systematic stereotype – differently attributed communicative expectations.¹⁰ As much as this form

of differentiation produces individual freedom (for example, from specific expectations to follow familial goals or gender roles), it also reduces the 'individual's' chance of influencing social systems. Furthermore, functional differentiation corresponds with the emergence of organisations and complicated structural couplings of systems. This creates problems for a social critique which solely operates on the level of generalised claims: On the one hand, such critique tends to self-referentially reinforce itself and, thereby, loses grip of an adequate analysis of society and its differentiation mechanisms. On the other hand, it loses an addressee. Even if there is a widespread insight in the necessity of reform or change (e.g., the need to fight racism and police violence against Afro-Americans), this goal requires complex social processes to be achieved. Mass protests, kneeling police officers or football players and broad public assurances of the need for change will be hard to sustain over an extended period of time and the question then arises if and how the insights into structural racism will seep into the decision-making processes of institutions and organisations that reproduce racism as a form of intended or non-intended by-product.

At this point, we find again surprising similarities between Adorno's and Luhmann's assessment of human impact on social systems. Of course, Adorno and Luhmann had different motives in observing and commenting on critical thinking, thought and action. Adorno warned the left against self-betrayal by emphasising that critical narratives and gestures can become part of a reactionary scheme. They could be absorbed by systemic logics and therefore fail to have any lasting impact.¹¹ Luhmann – who also observed the logics of absorbing social protest¹² – aimed at understanding social protest as a social system and deployed a historical interest in social critique. He importantly insisted that functional differentiation tends to marginalise protest on the fringe of the political system. Therefore, protest may unintentionally contribute to stabilise the political system by invoking claims 'from the margins of society' and, thereby, unintendedly affirm the political system as centre of the order. From this perspective, the form of protest is itself a product of bourgeois society with a considerable impact on European democratic publics. Luhmann argued, however, that the impact of critique and other human impact on autopoietic social systems is in general overestimated.¹³

The theories of both Luhmann and Adorno who share a doubt concerning the impact of critical talk and social protest on society are not easily understood in a society based on heroic images of men (mostly, men, much less women) who change the world. The collective imaginary of democratic societies in the twentieth century consists of a promise, enriched with narratives of solidarity, of social thought being able to achieve social change. Hence, social protest seems without alternative, even though it is often oppressed,

misunderstood and in many cases without systemic effect. Systems theory does take protest movements seriously and analyses how they are configured. However, it confronts the emphasis on humans' impact on social systems with an observation that is much more complex, much less path-dependent, and relies on the simultaneity of different societal logics. Only on this basis, it will be possible to gain an appropriate picture of social protest and investigate the conditions of its failure and success.

The paradoxical effect of voluntaristic approaches consists in a disregard for the complicated relationship between theory and practice. This amounts to a narrow understanding of how sociological observation, social critique and political struggle are related as well as to the danger of ignoring the difficulties of the collision of scientific, societal and political calculus. As already addressed in the discussion of 'organic intellectuals' by Antonio Gramsci,¹⁴ the role of the critical theorist by Max Horkheimer,¹⁵ and, finally, in Luhmann's emphasis on the differentiation of science and politics, a sound approach to the political role of social research has to focus on the opportunities and restraints of mutual translation rather than on vulgar appeals. Of course, we can only speculate how Luhmann would have reacted to voluntaristic self-understandings of a sociologist's role. Would he have discussed the forms and effects of morality in liberal societies? Or would he have commented on the inner logics of politics and economics, especially capitalist commodity form, to doubt the knightly colleagues' chances of success? He may also have spoken about theory as a 'trojan horse' – and about the fact, that theories (and the sociologists who use them) are not able to control their own interventions.¹⁶

Functional Analysis as Critical Practice

Luhmann insisted on the fact that sociology has to pursue the pathway of a functional analysis. In our understanding, it is a mode of critique which, by analysing the function of social mechanisms and searching for functional equivalents, allows for replacing, reframing or changing established patterns or institutions. The social institutions of modern society such as 'the state', the 'law' or the 'family' become open to transformation and may be replaced by other institutions that, for example, fulfil the functions 'to take collectively binding decision' (state) or to 'stabilize normative expectations' (law). Luhmann suggested to distinguish between three dimensions of social meaning which can be found in any communication:¹⁷ The social, the temporal and the fact dimension 'in relation to all objects of meaningful intention (in psychic systems) or themes of meaningful communication (in social systems)'.¹⁸ A functional analysis, Luhmann argues, has to take into consideration how these dimensions are entangled and articulated within communications and

semantics.¹⁹ It uses relations to understand what enables 'a problem to be solved in one way or another. The relation between the problem and its solution will thus not be grasped for its own sake; rather, it serves as a connecting thread to questions about other possibilities, as a connecting thread in the search for functional equivalences'²⁰.

The critical implications of functional analysis lie in debating equivalents and investigating why empirical solutions form a practice in one way and not another.²¹ In this context, systems theory can discuss alternatives to established social structures by highlighting functional equivalents. It accomplishes this by generalising specific functions and re-specifying them within particular constellations. During this process, alternative re-specification routes become visible and can be investigated for viability.

In this regard, systems theory constitutes an immanent mode of critique: It does not pit external ideals against existing social structures. Instead, it investigates transformative potentials inherently present within social systems. This viewpoint can be extended to a more fundamental inquiry that questions specific functions within the social world. However, in contrast to voluntaristic gestures, systems theory emphasises why these social structures persist. This is a crucial aspect of functional analysis: It does not underestimate the tenacity of social structures. Although systems theory is well-equipped to discuss social alternatives, it is also aware of society's complexity. The empirically overwhelming fact that all communications take place in real time and still form stable structures – for the worse and for the better – has to be processed in every sociological communication that seeks social change or reform. On the one hand, functional analysis pursues a humble pathway: The complexity of social structures makes it much harder to come to a self-assured policy advice, to ideas of social steering or even moral assumptions and condemnations. On the other hand, functional analysis is able to identify the scopes for reform and even for radical transformation in a more reliant and non-voluntaristic manner. And, of course, nobody prevents political actors from taking up these analyses.

In one of his rare interviews, Niklas Luhmann reflected on his own normative compass:

What I decidedly do not have [...] is a normative idea in which direction we should head in order to say: 'You should actually go there'. I lack that, indeed. I don't feel like a schoolmaster for society or someone who knows better where to go, at most as someone who observes changes and then detects deficiencies, for example theoretical deficiencies.²²

Nonetheless, Luhmann was never apolitical and his works are not free of political assumptions or ideals, as his excursion to programmatic work for

political parties demonstrates. It allowed him to discover that party platforms and scientific writing are irreconcilable forms of writing.²³ This nuanced approach to the relation between social research and politics does not imply that systems theory is apolitical. Indeed, it is able to reveal unintended effects of the welfare state²⁴ or any other structure such as racism or sexism. As a result, functional analysis can be illuminating in detecting hidden logics that conditions a situation and serves as a guide for the search of alternatives to structures that hurt or threaten vulnerable humans.

Evolution of Co-Evolution: Observing Social Crisis with Systems Theory

Luhmann was hesitant to develop a comprehensive theory of social crisis. The concept of social crisis is a key concept in critical theory, exposing societal contradictions and directing the course of history to transformation. But Luhmann has always shied away from all-encompassing gestures. His theory of social evolution and functional differentiation does not allow generalised schemes of social crisis. Using insights from contemporary theories in cybernetics and biology, Luhmann emphasised that social evolution must be viewed as a decentralised, indeterminate process. The paths of social change are chaotic and for him, it is not a central social crisis dimension that motivates society to evolve, but rather a process of recursive communication that transforms, revolutionises or destroys it without following a centralised cathartic movement from crisis to liberation. By demonstrating how the communicative dynamics pursue their own self-referential logics, he argued that there is no unitary process of evolution in his writings on history and social evolution:

The theory of evolution decomposes [...] the image of a unitary process of development, but it establishes a conceptual apparatus [...] which serves as the starting point for a reconstruction.²⁵

Against this backdrop, it does not seem promising to identify one central crisis dimension which unilaterally explains the course of history. In a comment on Louis Althusser's work on the dynamics of capitalism, Luhmann insists that social evolution is not in the last instance over-determined by a 'determinant' social system (in Althusser's account: capitalism), but remains, on the contrary, 'under-determined'.²⁶ Evolution is open to a variety of transformative options which range from incremental and technocratic adaptation to break-down and revolution. Accordingly, society must be considered as the outcome of non-teleological 'evolution of evolution'.²⁷ A 'mechanism of multiplication', which recursively applies processes of differentiation to processes

of differentiation with uncertain outcomes, sets history in motion.²⁸ Hence, it remains an open question which 'big bang' incited evolutionary take-offs. Systems theory abides by observing how social mechanisms emerged from the available pool of communications. This approach ultimately affects the possibilities for social critique. According to Luhmann, sociology should reactively observe the effects of social evolution and trace it back to an interplay of variation, selection and retention.²⁹ Most importantly, social evolution should not be associated with 'assumptions of progress or growing rationality' because it 'results from contingency and the chaos of multiple, small, uncoordinated micro-events'.³⁰ However, this rejection of holistic and teleological approaches does not mean that Luhmann is uncritical. He observes negative externalities and risks which accompany differentiation processes.³¹ Luhmann was motivated by a hope that sociology becomes able to understand the meaning and implications of functional differentiation and can desist from adhering to old-European methodologies.³² This includes becoming aware of tensions and collisions between social systems and how society is confronted with a variety of risks that are in need to be addressed.

It is, however, questionable if Luhmann was stringent in his rejection of crisis theory. His focusing on variation and unforeseeable contingency in social evolution ran the risk of not being able to adequately account for selection. The question arises whether systems theory can explain the role of constraints in history and the success or failure of specific differentiation mechanisms. At the very least, the epigenetic turn in modern biology has emphasised the role of enduring in-built limitations that direct evolution from the start.³³ Furthermore, the emphasis on self-referential differentiation tends to fall prey of losing sight of the interaction of social systems and their ossified connections in constellations such as 'the state', 'the subject' and central institutions such as 'marriage' or 'the market'. Luhmann investigated these aspects and the role of inter-systemic relations by using the concept of structural coupling. In the course of evolution, it is not only that social systems undergo self-referential closure, but they establish enduring connections because societal function systems – be it law, politics, the arts or sciences – depend on each other. In fact, social systems presuppose a peculiar environmental set-up which allows them to evolve.

Luhmann defined structural couplings as follows: 'Coupling mechanisms are called structural couplings if a system presupposes certain features of its environment on an ongoing basis and relies on them.'³⁴ He identified a whole range of structural couplings. Examples include language (structural coupling of consciousness and communication),³⁵ the modern state budget (structural coupling of politics and economy),³⁶ or the church (structural coupling between the transcendence of belief and the immanence of the world).³⁷

In order to elucidate how these mechanisms of structural coupling operate, it is worth recalling his prominent and widely discussed example of the modern constitution.³⁸ Luhmann defined the constitution as a mechanism of structural coupling of law and politics: The legal system assists the political system in its function to take collectively binding decisions. Legal provisions of the constitution, in particular procedures, enable politics to take, to apply and to vary political decisions. In return, the function of the legal system, to stabilise normative expectations, is facilitated through legislation adopted in the political system.

Another aspect of constitutional structural coupling is its contribution to the management of foundational paradoxes within law and politics. Both systems are grounded on self-referential communications guided by binary codes: legal/illegal in the case of the legal system and government/opposition in the case of the political system.³⁹ On a number of occasions, Luhmann discussed the problem of the foundational paradox in both systems.⁴⁰ As foundational paradox, he understands that the code cannot be justified by applying the code to itself. For example, it is unclear if the adoption of the legal code is itself legal or illegal. These paradoxical grounds create a certain twilight. On the one hand, social systems invent ways to conceal their paradoxical origins and to stage themselves as necessary and viable. On the other hand, they can explicitly use the paradoxical basic structure to adapt themselves to a changing social environment by revising the meaning of the code.

Constitutionalism as it emerged from the eighteenth century onwards is characterised by both tension and mutual reliance between law and politics.⁴¹ The constitution as a legal document constitutes a higher-ranking law. At the same time, it is a political constitution authorised by a political-volitional act of the 'people'.⁴² Luhmann argues that this movement of tension and mutual reliance should be reconstructed as structural coupling that allows each system to conceal its own foundational issues by externalising them to the other system via this mechanism: From the perspective of the legal system, the establishment of the code legal/illegal can be traced back to a political founding act that is (at least partly) external to the constituted powers of law. To be sure, this externalisation also has an inverted direction. From the perspective of the political system, the establishment of its code is stipulated to be a legal construction to prevent excesses of political power and thus relegates its foundation to the legal system:

Law externalises its paradox towards politics with the aid of the state constitution. [...] The constitution commits politically unconstrained sovereignty to the process of the law. The state constitution, as a structural coupling between the law and politics, is thus characterised by the fact that there is a reciprocal externalisation of the original paradoxes of politics and law.⁴³

If we take the observation on the role of structural couplings seriously, the evolutionary approach to society can be combined with notions of social critique and crisis. The evolution of evolution becomes evolution of co-evolution which is characterised by the emergence, transformation and decay of specific structural couplings between social systems. As social systems evolve over time, they constitute broader contexts of societal regulation. In these constellations, social systems 'match' each other through communicative supply chains. This opens up spaces for a theory of social crisis and critique that inquires the historical transformation of structural couplings. The sociologist Paul Bachur used these insights in order to theorise modern capitalism with the means of systems theory:

It happens through the co-evolution of structurally coupled systems, that inter-systemic asymmetries are historically consolidated. [...]: The relation of politics to law, to economy, to science etc. is different from the relation of law to politics, to the economy, to science etc. and again different from the relation of the economy to law, to politics, to science etc.⁴⁴

Bachur identifies an emerging asymmetry between the various contexts of structural coupling. Given the dominance of the nexus between a market-based growth economy, the law and the state, modern society may be described not only as functionally differentiated but also as a capitalist society. In this specific societal formation, the couplings between the subsystems are not arranged in an egalitarian, but in an asymmetric-hegemonic manner since they rely on the structural dominance of the capitalist economy. Thereby, social systems undergo an ossification which constitutes – at least symbolically – a social whole.

Drawing on these analyses, we can conclude that evolution is not reducible to a differential logic and requires an inquiry into the transformation of co-evolution between social systems.⁴⁵ Episodes of overarching stability and regulation are followed by episodes of erosion, decline and change. These developments have root causes that invite an assessment using social crisis theory. The context of regulation undergoes a crisis because the inter-systemic communicative supply arrangement is in such a disarray that regulation fails and, thereby, severely undermines the function of the coupled systems: In order to function, the market requires private law, the state requires money and legal instruments, marriage depends on contract as well as on romantic love. If an element of these arrangements collapses – if there is no private law, no money or no romantic love – it can lead to a crisis that affects the whole context. In such a situation, the context may no longer be able to be re-regulated by technocratic means. Foundational issues and paradoxes resurface:

If social systems are encountering an enduring and severe mismatch, the avenues for social transformation, break-down or revolution are opening up. Such a systems-theory approach to crisis is accompanied by a substantive account of social environments. Their status cannot be reduced to an idiosyncratic construction of the respective system which is used to separate itself from what it is not. To stabilise the regulatory context, social systems must exhibit a certain degree of fitness to the substantive framework of their environment as it has evolved in history. Approaches within critical systems theory emphasise the dual role of social environments as both an internal construction of the system and a substantive social substrate. Georg Klaus, a GDR-based forerunner of critical systems theory and cybernetics, argued that in order to explain systemic reactions to social change, one must delve into 'the historical past of the social system'.⁴⁶ In his seminal work on cybernetics and epistemology, he stressed that social system's internal models of the outer world have to match it at some point, otherwise they become unable to adapt themselves to changing societal conditions.⁴⁷ In his view, the central mechanism which allows for a sound reaction to these circumstances are feedback loops that reflect on the difference between system and environment. In this way, they are able to match the existing social substrate and block the tendency towards an exaggerated excess of systemic self-referential closure.⁴⁸

Ultimately, for Klaus, this struggle for adequacy between the internal 'constructed' and the external substantive environment (between the *unmarked state* and the *unmarked space* in Luhmannian parlance⁴⁹) can serve as the starting point for learning processes. They can be observed when social systems succeed in overcoming constellations of crisis and re-establish relations of fitness so that they are able to regulate inter-systemic arrangements. Internal reflexivity plays a pivotal role in dealing with the differences between the unmarked space and the social system. Using these insights, a central concern of critical theory, the distinction between progress and regress, can be reformulated within critical systems theory: Regressive reaction patterns to societal crisis are distinguished by their inability to adequately process the distinction between system and environment and, as a result, tend to misconstrue their respective historically constituted social substrate. In contrast, progressive reaction patterns attempt to avoid regressive short-cuts and approximate the given social substrate through reflexivity.

Conclusion

Systems theory can be used to reclaim the possibilities for an immanent critique of modern society. Beginning with Luhmann's rejection of voluntaristic approaches to social change and his distance to idealised or principal-based

approaches to understanding society, we demonstrated how a functional method and a unique analysis of social crisis processes based on systemic co-evolution can revive social critique. Luhmann's emphasis on the difficulties that arise when translating social research, social critique and politics in relation to one another should not be interpreted as a retreat from the public sphere. Rather, we argue that acknowledging competing systemic rationalities is a necessary precondition for fruitful interventions in public discourses and organisations. It is worth noting that Luhmann drew heavily on the insights of social research in his time (1960s to 1990s), but remained committed to the connection between social theory and social critique. Instead of staging critical gestures, for him social critique remains linked to an all-encompassing social theory that demonstrates how society actually operates. On this basis, it may be possible to explain and, possibly, overcome the challenges and contradictions of contemporary world society rather than merely scandalising them.

Notes

- 1 See also Gorm Harste, *The Habermas-Luhmann Debate* (New York: Columbia University Press, 2021).
- 2 Niklas Luhmann, 'Systemtheoretische Argumentationen', in Jürgen Habermas and Niklas Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie* (Frankfurt am Main: Suhrkamp, 1971), 291–405 at 372.
- 3 *Ibid.*, 399 et. seq.
- 4 Dirk Baecker, *Studien zur nächsten Gesellschaft* (Frankfurt am Main: Suhrkamp, 2007); Dirk Baecker, 'Wahr ist nur, dass alles falsch ist. Zur Kritik der nächsten Gesellschaft', in *Systemtheorie und Gesellschaftskritik. Perspektiven der Kritischen Systemtheorie*, ed. Kolja Möller and Jasmin Siri (Bielefeld: transcript Verlag, 2016), 223–39; Armin Nassehi, *Der soziologische Diskurs der Moderne* (Frankfurt am Main: Suhrkamp, 2006); Armin Nassehi, 'Systemtheorie und Kritik. Ein Interview mit Armin Nassehi', in *Systemtheorie und Gesellschaftskritik. Perspektiven der Kritischen Systemtheorie*, ed. Kolja Möller and Jasmin Siri (Bielefeld: transcript Verlag, 2016), 207–22; Andreas Fischer-Lescano and Marc Amstutz, eds., *Kritische Systemtheorie. Zur Evolution einer normativen Theorie* (Bielefeld: transcript Verlag, 2013); Jasmin Siri and Kolja Möller, 'Kritische Theorie und Systemtheorie – eine Einleitung', *Soziale Systeme* 20, no. 2 (2015): 223–6.
- 5 Niklas Luhmann, *Social Systems* (Stanford: Stanford University Press, 1995), 74 and 80–4.
- 6 Theodor W. Adorno, 'Society', *Salmagundi* 10–11 (1969/1970): 144–53 at 144.
- 7 Niklas Luhmann, *Die Politik der Gesellschaft* (Frankfurt am Main: Suhrkamp, 2002), 70 et. seq.
- 8 Niklas Luhmann, 'Die Form "Person"', *Soziale Systeme* 2, no. 2 (1991): 166 et seq., 211–13.
- 9 Niklas Luhmann, *Theory of Society*, Vol. 2 (Stanford: Stanford University Press, 2013), 17–18. See also Niklas Luhmann, 'Individuum, Individualität, Individualismus', in Niklas Luhmann, *Gesellschaftsstruktur und Semantik*, Vol. 3 (Frankfurt am Main: Suhrkamp, 1989), 149–258 at 160.

- 10 Christine Weinbach, 'Die systemtheoretische Alternative zum Sex-und-Gender-Konzept: Gender als geschlechtsstereotypisierte Form "Person"', in *Frauen, Männer, Gender Trouble. Systemtheoretische Essays*, ed. Ursula Pasero and Christine Weinbach (Frankfurt am Main: Suhrkamp, 2003), 144; Luhmann, *Die Politik der Gesellschaft*, 20.
- 11 Max Horkheimer and Theodor W. Adorno, *Dialectic of Enlightenment* (Stanford: Stanford University Press, 2002), 94 et. seq.
- 12 Niklas Luhmann, *Protest. Systemtheorie und Soziale Bewegungen* (Frankfurt am Main: Suhrkamp, 1996).
- 13 Maren Lehmann, 'Das "Altwerden funktionaler Differenzierung" und "Die nächste Gesellschaft"', *Soziale Systeme* 20, no. 2 (2015): 316 et. seq.
- 14 Antonio Gramsci, *Prison Notebooks* (New York: Columbia University Press, 2011).
- 15 Max Horkheimer, *Critical Theory* (New York: Continuum, 2002).
- 16 Luhmann, *Protest. Systemtheorie und Soziale Bewegungen*, 74.
- 17 Luhmann, *Social Systems*, 74 et. seq.
- 18 *Ibid.*, 77.
- 19 *Ibid.*, 54 et. seq.
- 20 *Ibid.*, 54. For a detailed interpretation and adaptation to qualitative sociological methodologies see Jasmin Siri and Katharina Mayr, 'Management as a Symbolizing Construction? Re-Arranging the Understanding of Management', *Historical Social Research* 36, no. 135 (2011): 160–79 at 163.
- 21 Niklas Luhmann, *Trust and Power* (Chichester, Toronto: Wiley, 1979), 2.
- 22 Luhmann, *Protest. Systemtheorie und Soziale Bewegungen*, 70, translation by the authors.
- 23 Niklas Luhmann, 'Probleme eines Parteiprogramms', in *Freiheit und Sachzwang*, ed. Horst Baier (VS Verlag für Sozialwissenschaften, 1977), 167–81.
- 24 Niklas Luhmann, *Political Theory in the Welfare State* (Berlin: de Gruyter, 1990).
- 25 Niklas Luhmann, 'Geschichte als Prozeß und die Theorie sozio-kultureller Evolution', in Niklas Luhmann, *Soziologische Aufklärung 3* (Opladen: Westdeutscher Verlag, 1981), 192–3, translations by the authors.
- 26 Niklas Luhmann, 'Evolution und Geschichte', in Niklas Luhmann, *Soziologische Aufklärung 2* (Wiesbaden: VS Verlag für Sozialwissenschaften, 1973), 156. Luhmann criticises Althusser's social theory in this passage. In contrast to Luhmann, Althusser developed a scheme of social evolution that displayed an inverted relationship of variation and selection: While existing social systems select and evolution varies contingently according to Luhmann, social instances within capitalism vary, but social evolution is determined 'in the last instance' by a dialectic of productive forces and production relations as a selection pattern, according to Althusser. However, Althusser noted that the 'lonely hour of the last instance never comes', emphasising that this dialectic roughly directs history (Louis Althusser, *Für Marx* [Frankfurt am Main: Suhrkamp, 2011], 139). In order to accentuate this type of causality through absence, he referred to Sigmund Freud's conception of over-determination.
- 27 Luhmann, 'Geschichte als Prozeß und die Theorie sozio-kultureller Evolution', 193. For a critical reconstruction of this approach cf. Barbara Kuchler, 'Das Problem des Übergangs in Luhmanns Evolutionstheorie', *Soziale Systeme* 9, no. 1 (2003): 39.
- 28 Niklas Luhmann, *Theory of Society*, Vol. 1 (Stanford: Stanford University Press, 2012), 301.
- 29 Luhmann, *Social Systems*, 41 et. seq.

- 30 Kuchler, 'Das Problem des Übergangs in Luhmanns Evolutionstheorie', 28.
- 31 Luhmann, *Die Politik der Gesellschaft*, 421–9, 432–3.
- 32 Luhmann, *Social Systems*, 211–13.
- 33 For an attempt to make use of these resources for a critical systems theory see Hauke Brunkhorst, *Critical Theory of Legal Revolutions* (London and New York: Bloomsbury Publishing, 2014); Fábio Portela L. Almeida, 'The Emergence of Constitutionalism as an Evolutionary Adaptation', *Cardozo Public Law, Policy, and Ethics Journal* 13 (2014): 1.
- 34 Niklas Luhmann, *Law as a Social System* (Oxford: Oxford University Press, 2004), 382.
- 35 Luhmann, *Theory of Society*, Vol. 1, 63.
- 36 Luhmann, *Die Politik der Gesellschaft*, 384.
- 37 Niklas Luhmann, *A Systems Theory of Religion* (Stanford: Stanford University Press, 2013), 167 et. seq.
- 38 Luhmann, *Law as a Social System*, ch. 10 and Niklas Luhmann, 'Verfassung als evolutionäre Errungenschaft', *Rechtshistorisches Journal* 9, no. 1 (1990): 180. For an elaboration of the law/politics/society-nexus from a critical systems theory perspective see Darrow Schecter, *Critical Theory and Sociological Theory. On Late Modernity and Social Statehood* (Manchester: Manchester University Press, 2019), 34 et. seq.
- 39 Luhmann, *Social Systems*, 242 et. seq.
- 40 See, for example, Niklas Luhmann, 'The Third Question: The Creative Use of Paradoxes in Law and Legal History', *Journal of Law and Society* 15, no. 2 (1988): 153–65. For an inquiry into the role of paradox in systems theory see Urs Stäheli, 'Politik der Enparadoxisierung. Zur Artikulation von Hegemonie- und Systemtheorie', in *Das Unantastbare der Politik. Zur Hegemonietheorie Ernesto Laclaus*, ed. Oliver Marchart (Wien: Turia/Kant, 1998), 52–66.
- 41 See Chris Thornhill, *A Sociology of Constitutions: Constitutions and State Legitimacy in Historical-Sociological Perspective* (Cambridge: Cambridge University Press, 2011).
- 42 Kolja Möller, 'Das Ganze der konstituierenden Macht. Zur politischen Soziologie verfassungsgebender Gewalt', in *Systemtheorie und Gesellschaftstheorie. Perspektiven der kritischen Systemtheorie*, ed. Kolja Möller and Jasmin Siri (Bielefeld: Bielefeld Verlag, 2016), 39–56; Kolja Möller, 'Drohung und Verfahren', in *Prozeduralisierung des Rechts*, ed. Tatjana Sheplyakova (Tübingen: Mohr Siebeck, 2018), 245–64.
- 43 Gunther Teubner, 'Exogenous Self-Binding: How Social Systems Externalise Their Foundational Paradox in the Process of Constitutionalisation', in *Sociology of Constitutions: A Paradoxical Perspective*, ed. Alberto Febbrajo and Giancarlo Corsi (London: Routledge, 2016), 30–48.
- 44 João Paulo Bachur, *Kapitalismus und funktionale Differenzierung* (Baden-Baden: Nomos, 2013), 112, translation by the authors. For similar perspectives see Uwe Schimank, 'Die Moderne: Eine funktional differenzierte kapitalistische Gesellschaft', *Beiträge zur Soziologie* 19, no. 3 (2009), 327–51; Bob Jessop, 'Zur Relevanz von Luhmanns Systemtheorie und von Laclau und Mouffes Diskursanalyse für die Weiterentwicklung der materialistischen Staatstheorie', in *Der Staat der bürgerlichen Gesellschaft. Zum Staatsverständnis von Karl Marx*, ed. Joachim Hirsch, John Kannankulam, and Jens Wissel (Baden-Baden: Nomos, 2008), 165–92.
- 45 There are obvious similarities to contemporary crisis theory based on pragmatism and critical theory. Cf. Rahel Jaeggi, *Critique of Forms of Life* (Cambridge, MA: Belknap Press. Imprint of Harvard University Press, 2018), 114 et. seq.

46 Georg Klaus, *Kybernetik und Erkenntnistheorie* (Berlin: VEB Deutscher Verlag der Wissenschaften, 1966), 87.

47 *Ibid.*, 34 et. seq.

48 *Ibid.*, 259 et. seq.

49 On the difference between unmarked state and unmarked space in Luhmann's writings, Cf. Urs Stäheli, *Sinnzusammenbrüche. Eine dekonstruktive Lektüre von Niklas Luhmann's Systemtheorie* (Weilerswist: Velbrück Wissenschaft, 2000), 82 et. seq.

Chapter 10

LUHMANN, ON ALGORITHMS, IN 1966

Elena Esposito

Problems of Automation in the 1960s

In the 1960s, what did Luhmann know about digitisation and algorithms? It may sound like a rhetorical question, but Luhmann already knew a surprising amount of information about these subjects, which I should like to demonstrate by way of analysing the 1966 text *Recht und Automation in der öffentlichen Verwaltung (Law and Automation in Public Administration)*.¹ I use quite a few direct quotations from Luhmann's text, which is unusual for me, but I hope that the quality of the citations will speak for themselves. Of course the argument in the end is my own, yet it has been inspired by and constructed with material from Luhmann's text.

Big data and self-learning algorithms obviously did not yet exist, but Luhmann was already anticipating them, as various passages show. For example, he suggested that the idea that machines cannot solve system problems through other than purely logical means:

[...] will probably one day be unhinged with the counterargument that you can teach a machine leaps of logic and that it can clarify the admissibility of such leaps better than humans. The Carnegie Institute of Technology, Pittsburgh, is already working on computer programmes for problems which are unclearly defined and [these programmes are] designed to imitate and perhaps even surpass the human approach [...]. And every time that those advocating the use of human beings precisely formulate their reasons, at the same time they create the basis for the formulation of new equivalent machine programmes.²

The current competition/cooperation between humans and machines in the development of game algorithms (and machine-learning in general) could hardly be better described. For example, there is the famous case of DeepMind's 'AlphaGo' programme that plays the Chinese board game Go,