

Niklas Luhmann and Posthuman Modernity

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In the Introduction to his magnum opus, Die Gesellschaft der Gesellschaft, Niklas Luhmann makes the following programmatic statement: „The inquiries that follow venture this transition to a radically antihumanistic, radically anti-regional, and radically constructivist concept of society.” In my essay, I seek to unpack the ramifications of this move from an anthropocentric social paradigm to one that decenters the role of human beings in society and social theory. I propose that, in line with Luhmann’s intentions, we read his theory of society as a radically posthumanist venture. Two interpretations of Luhmann’s work stand out in particular, for both have advanced readings that seek to flesh out this dimension, namely those of Hans-Georg Moeller and Cary Wolfe. Through Moeller and Wolfe’s posthumanist commentaries on Luhmann, I also attempt to highlight what exactly we should understand under the term „posthumanism” and what a posthuman social thought might look like. Following Wolfe, I define posthumanism as a mode of thinking that follows „after” the exhaustion of human-centered ways of interpreting social phenomena. Technological changes and social differentiation necessitate the rejection of models that would imagine society as a mere aggregate of human agents, or even social rules constructed and shaped by humans. Neither can we any longer interpret society as a collection of human actions or intersubjective relations. Society is more than subjectivity, and cannot be reduced to a set of relations among humans. Society is more than the sum of intersubjective spaces. Posthumanism is a coherent strategy designed to integrate nonhuman objects, materialities, relations and systems into social theory. As a matter of fact, Luhmann actually places humans („psychic systems”) within the environment, hence ejecting them altogether from society! The radical nature of his sociology lies in his reconceptualization of modern society as an assemblage of functional systems that have grown independent of human intentions.

Key words: autopoiesis, constructivism, posthumanism, self-organization, sociology

Posthuman Autopoiesis

If we observe the reception of Niklas Luhmann's work in contemporary social theory, we shall find that he is definitely one of the most widely read social theorists of the late 20th century. In terms of English language translations too, Luhmann has achieved widespread availability and accessibility. Nevertheless, this has not reduced the difficulty of accessing this *oeuvre*. Luhmann is not the simplest of readings, and even admirers find his language tedious at times (although I am not among those who would characterize it in such terms). While many studies have focused on his functionalism, relatively little has been written to date on the issue of Luhmann's „antihumanism.” In this essay, I propose to highlight this particularly neglected aspect, and to also uncover how we may radicalize Luhmannism, and in what directions this deanthropomorphic strand of systems theory can be continued. Generally, I will draw most of my material from the first volume of Luhmann's most systematic book, *Die Gesellschaft der Gesellschaft*, translated in 2012 as *The Theory of Society*. Given Luhmann's unambiguous theoretical commitments, it is surprising to find the relative paucity of posthumanist attention paid to his works. According to my view, we cannot understand Luhmann without underlining the importance of radical posthumanism and antihumanism. So as to ease our exploration, we must strip off the functionalist rhetoric, in the interests of archaeologically uncovering this radical potential. This archaeology is simpler than it would seem. In spite of his dense language, Luhmann makes his position clear in the following, paradigmatic statement as the beginning of *The Theory of Society*: „The inquiries that follow venture this transition to a radically antihumanistic, radically anti-regional, and radically constructivist concept of society.” (Luhmann 2012 [1997]: 12.) It is this radicalism, too often forgotten by Luhmann-scholars, that we must rediscover. But first, we must define what we must understand under the term „posthumanism.”

What exactly does it mean to be „posthumanist”? Cary Wolfe identifies a double genealogy: on the one hand, he sees French Continental philosophers, such as Jacques Derrida and Michel Foucault, as having pioneered an antihumanist philosophy, in the form of deconstructionism and poststructuralism respectively. On the other hand, from the 1940s onward, cybernetic models of communication have also contributed to the deconstruction of human-centric modes of thinking about social relations. (Wolfe 2010: xii.; see also: Geroulanos 2010) As we shall see shortly, Luhmann draws from both strands of this genealogy; his work may even be interpreted as an ambitious synthesis of second-order

cybernetics and Derridean deconstructionsim. According to Wolfe, posthumanism does not so much entail a state „after” humanity in a temporal sense, but rather a reflexive mode of rationality that decenters notions of social agency, as well as deconstructing humanist and Cartesian ideas pertaining to autonomous, rational Western subjectivity. (Wolfe 2010: xv.) The „post” of posthumanism is „prior” to humanism, in the sense that it conceives of society as a complexity always already irreducible to human presence, but also „after” because it „comes after the cultural repressions and fantasies, the philosophical protocols and evasions, of humanism as a historically specific phenomenon.” (Wolfe 2010: xvi.) Ideologies that privileged humans at the expense of nonhuman modes of being were problematic to begin with. Human beings never had a monopoly on social agency. Posthumanism would be a „mutational, viral, or parasitic form of thinking” that utilizes the remnants of humanism to remake and pluralize social theory. (Wolfe 2010: xix.) In spite of its apparently systematic nature and scientific rhetoric, Dirk Baecker also sees second-order cybernetics, Luhmann included, as strongly deconstructive, that is motivated in part by a constant tendency to deconstruct its own key concepts and theoretical frames. (Baecker 2001: 59-74, 61.) Any social theory may be interpreted as pothumanist that separates social phenomena from subjectivity and does not problematize this separation as, for instance, Marxist theories of alienation do. In Wolfe’s view, Luhmann’s sociology is one of the most important and by far the most systematic posthumanist theories of society to date. (Wolfe 2010: xx.)

For Luhmann, societies are not aggregations of human subjects, but self-organizing communications, produced through complex autopoietic processes. (Luhmann 2012 [1997]: 32.) Production is not the result of human labor, but instead results from self-generated feedback mechanisms. Autopoiesis is a compound word created by Humberto Maturana and Francisco Varela, and denotes the way complex organisms create their own components. As Luhmann notes with regard to autopoiesis, „at issue, then, is ‘poiesis’ in the Greek or strict traditional sense of production, the making of a work, in combination with ‘auto’, which is to say that the system is its own work.” (Luhmann 2013 [2002]: 78.) Luhmann does no more than adapt this biological concept to the study of modern social systems. The reconceptualization of society as an assemblage self-referential self-organizing systems has important ramifications on the level of social agency, because this necessarily implies the relegation of humans as psychic systems to the periphery of social reality. In Luhmann’s view, communication is the sole component of society: humans are only social as long as they

contribute to the production of codes and languages. If we were to carelessly integrate the entirety of human modes of being into society, the specifically modern priority of communication in functionally differentiated social life would evade our conceptual framework. We therefore find an abyss separating social systems from psychic systems; society as a communicative dimension forms a „recursive domain” that, through ever more selective information processing mechanisms, excludes elements unamenable to signification. (Wolfe 2010: 6.)

From Luhmann's systems theoretical perspective, the differentiation between system and environment is of paramount importance. Because meaning is constructed through recursive communicative operations, human subjects also belong to the environment of modern functional systems. Meanings are mounted upon external/internal boundary differentiations, as well as the self-observation of systems. In itself the world does not furnish useful information for the system. As Luhmann writes persuasively, „the world is an immeasurable potential for surprises; it is virtual information, needing, however, systems to produce information, or, in more precise terms, to give selected irritations the sense of information.” (Luhmann 2012 [1997]: 19.) What it is that counts as relevant information depends on the system's filtering mechanisms, as well as the code its operations follow. There is no such thing as information or meaning in itself, for these are the end results of recursive communication-production. It is for this reason that it is ludicrous to differentiate „true” news from so-called „fake” news, because all media outlets produce an artificial reality through the recursive processing of various environmental irritations. (Luhmann 2000 [1996]) Modern social systems are meaning-constructing machines that repeatedly recode themselves through selecting certain irritations from their environments, while always remaining closed entities. Even so-called „unmarked states” residing outside the system's boundaries are, in reality, inseparable from information-processing, because they are always external only in relation to the self-referential operations of at least one self-organizing system, and are hence inseparable from meaning-construction in general. Even non-meaning stands in correlation with the form of meaning it reverses: negation has a tendency to potentialize that which it explicitly negates. (Luhmann 2012 [1997]: 21.) Social systems must ceaselessly reactualize the meanings they produce. Because it is self-referential, meaning-construction is not equivalent to some reservoir of subjective values, desires or worldviews, although humans as communicative organisms certainly contribute to the production of communication through their irritation of

social systems. All self-reference demands a certain amount of hetero-reference, a referentiality that extends beyond a system's borders. (Luhmann 2012 [1997]: 22.) Meaning always functions as a medium for itself: communication is a flow composed of differentiations that effectuates new differentiations, a flow that streams back into itself, but in never quite the same form. In a self-referential manner, it collects hetero-references into itself, while also utilizing these externalities so as to rejuvenate its own forms. (Luhmann 2012 [1997]: 27.) Information is differentiation, discrimination, selection, while the process of selection is autological. This circumstance, as we have already elaborated, means that human agents cannot be conceived of as being the privileged loci of communication. According to Luhmann's view, form is „unfolded self-reference” (*enfaltete Selbstreferenz*), a self-sustaining movement based on repetition. (Luhmann 2012 [1997]: 29.)

Communication is re-entry into interiority. It is through the repetition of self-penetration that social systems can produce newer communications. In Luhmann's model, society is composed of a multitude of functional systems. If form is a „continually self-regenerating medium”, this also means that communication necessarily transcends subjective boundaries. (Luhmann 2012 [1997]: 27.) Most provocatively, Luhmann maintains in a 1988 that „humans cannot communicate; not even their brains can communicate; not even their minds can communicate. Only communication can communicate.” (Luhmann 1988: 371-389; 371.) This social theory is predicated upon the logical priority of difference and differentiation, as opposed to similitude and unity. Intra-systematic unity is a product of differential production. In Luhmann's view, it is not syntheses or unities per se that are of primary importance, but rather differences, conceived of as communicative events. Luhmannian sociology searches for moments of diversity, points wherein differences and borderlines are created. If there is any imperative, even ethical statement, in Luhmann's work, it is the following statement derived from George Spencer Brown and repeated several times in many of the former's books: „draw a distinction.” (Spencer-Brown 1979 [1969]: 3.) This approach is at once a provocation and an invitation to differentiate between humans and social systems, subjectivity and communication, even between ourselves and zones of communicativity. Affirmation of difference composes the point of commonality between Luhmannian sociology and Derridean deconstructionism, for both are predicated upon the rejection of universals. (Wolfe 2010: 13.) For systems theory, the environment figures as a source of differences that provoke the system into action, irritating it to the point wherein it

either accepts or rejects stimuli. As opposed to the reduced complexity of the autopoietic social system's inner environment, the environment is nothing more than „noise” from which the system must nevertheless „obtain meaning in the context of its own operations.” (Luhmann 2012 [1997]: 32.) The autopoietic mode of operation necessitates operational closure, otherwise the system would be unable to discriminate between useless noise and useful information. This closure must, following Wolfe, be understood along the lines of „openness from closure.” In order to maintain its own autopoiesis, a system must separate itself from the noise of its environment through methods of operational closure, while also guaranteeing its ability to selectively integrate various data and recode such elements into information. (Wolfe 2010: 15.) Hence openness is derived from closure. It is precisely this Darwinian selective pressure that forces self-referential systems into a certain type of openness, albeit at the expense of maintaining a limited amount of boundary-permeability. Perfectly open societies are even more impossible than isolated ones. Luhmann views selection as an essential and unavoidable characteristic of modern functionally differentiated societies, and even holds political discourses that preach universal openness to be harmful, potentially dangerous utopias without any basis in contemporary social reality. Without mincing his words, Luhmann unambiguously rejects the idea of an „open society”: „we now have to assume the universality of selection constraints, the universality of differentiation and boundary drawing. Reason that refuses to acknowledge this is not far from totalitarian, if not terrorist, logic.” (Luhmann 2012 [1997]: 110.) As opposed to the terroristic ideology of complete openness, Luhmann affirms in a radical manner the need for boundaries, based on an explicitly political acknowledgement of the unavoidability of „variation, selection and restabilization”, a neo-Darwinian triad which he holds is applicable to society. (Luhmann 2012 [1997]: 252.)

Luhmann's Radicalism

Hans Georg Moeller in his aptly titled monograph, *The Radical Luhmann* makes the case that Luhmann's sociology constitutes the „fourth insult” against humanism. Sigmund Freud identified three „insults” in the history of science that have contributed to the destruction of anthropocentrism: the Copernican turn („cosmological insult”), Darwin's discovery of human evolution („biological insult”) and, somewhat immodestly, Freud's own theory of the unconscious and the role it plays in the human psyche („psychological insult”).

(Freud 1969: 130-138.) In Moeller's opinion the separation of communication from human subjectivity, as achieved by Luhmann, constitutes a fourth insult in this genealogical sequence, the „sociological insult” that will finally allow us to deanthropomorphize society and social thought in general. (Moeller 2012: 38.) The Luhmannian program contains a dehumanizing tendency, the political implications of which cannot be ignored. Namely, we think here of the reevaluation of agency in political decision making, as well as the consequent abandonment of social planning or illusions pertaining to large-scale social engineering. (Moeller 2012: 34-5.) If we remain true to Luhmann's intentions, we have to come to terms with the fact that society in modernity is composed of operatively closed self-organizing information-processing systems, whose communicative abilities are hence limited by this mode of operation. (Luhmann 2012 [1997]: 87.) They are responsive to all manner of irritations, but always within the bounds of their closure. Social systems can only create opportunities delineated for them by their own prior differentiations. Society determines itself by maintaining selectively open boundaries. The externality of the borderline separating the system from its environment allows for the free flow of internal communicativity, as well as the freedom to process information as it sees fit, hence opening up communication to itself. Free interiority demands a closed exterior. Social self-organization has become so self-referential that Luhmann even asserts that demographic processes are all but irrelevant to the „reproduction” of modern societies, because reproduction today no longer has a biologically grounded basis: „in principle, society today does not depend on the increase or decline of the population. At any rate, sufficient capacities are available to continue the autopoiesis of the societal system at the development level achieved. And as soon as we become aware of this, we can start describing demographic growth not as a blessing but as a problem, if not a curse.”¹ (Ibid.) Society in the Luhmannian model is independent of human presence, to the point wherein demographic decline ceases to figure as a primary concern in the most differentiated societies. Communication gains the ability to continue long after human presence is eclipsed by technological or ecological developments. Modern societies are not composed of human actions: communication is not an act, but rather the automated production of events. (Luhmann 2012 [1997]: 64.) Functional systems cannot be reduced to actions, and therefore neither may they be theorized as mere „social facts” in the Durkheimian sense.

There is no substrate that may be said to constitute an essential building block of social reality; „society has no essence.” (Luhmann 2012 [1997]: 47.) Constructivism connects well with this insubstantialist ontological proposition. Because each social system produces its own social reality, none of them ever come into contact with „reality” as such. This is not to deny the relative existence of objects in the world, but objectivity only comes to matter when it becomes the object of meaning-production. Access to reality in itself is, for Luhmann, all but impossible, for systems that open up completely to their environments lose their functionality. Open systems are dead, lifeless societies, broken machines that have returned to entropy. In Moeller’s summation, Luhmann’s model implies that „living systems and social systems are observing systems as well, and there may well be many more modes of observation other than mental, biological, or communicative processes. Reality is an effect of observation, but observation is not *substantially* defined.” (Moeller 2012: 84.) Instead of transcendence, such an epistemology results in a radical immanence, because it abandons any clear dichotomy between observer and observed. The reality social systems observe is already a construct they themselves have created for the purpose of manipulation in accordance with their prior structures. Reality in general is an artificial product of serial autological operations, a self-organizing order which manufactures itself and the conditions of its own further proliferation. (Moeller 2012: 85.) In every society there are multitudes of observing systems and modes, and none of these may be said to be integrable with all others. There is always a certain unavoidable friction among the modes of observation, for the economic system processes different inputs that the political system, the legal system has different criteria for sorting through issues than the media, while in turn the scientific system values performances differently in turn. While the mass media need sensationalist headlines, unusually titled scientific articles are not prone to attract more attention or citations than more conventionally titled research. (Paiva et.al. 2012: 509-513.) As distinct from social theories that privilege social integration, or problematize its absence, Luhmann holds that integration is impossible and even counterproductive in a modern setting. Worst of all is forced integration, which completely disregards the self-organizing nature of social life. As Luhmann writes, „there is (...) no obligation to integrate self-observations. The system does what it does. (Luhmann 2012 [1997]: 46.) Self-observations, similarly to functional systems in general, are polycontextual. It is impossible to bring self-observations into harmony with one another, or to create some synthesis of communications, as a difference is the basis of any and all

communication. Similarity leads to tedious boredom: only diversity can serve to perpetuate change, innovation and free selective choice. Recursive operations have one sole functional goal: to create the preconditions for newer system operations. Society comes to be identified as a system „that is completely and exclusively determined by itself.” (Luhmann 2012 [1997]: 51.)

Instead of external sorting criteria, communication itself determines which environmental factors are integrated into its self-programming. So as to maintain its inner order, communication must open itself partially to local indeterminations, chaotic elements that allow for the production of paradoxes, surprises and the unpredictable explosion of seemingly pointless inner events. (Luhmann 2012 [1997]: 52.) Without some measure of heterogeneity, one cannot even conceive of events. However, this heterogeneity cannot be so intensive as to exclude the possibility of further self-coding. The operationalizability of selection criteria is impossible if data remain formless. Form is always a way of differentiating between order and chaos, and can only be operationalized in the context of previous forms. Only that which has been adjusted to previous forms can be made into a raw material containing the contours of forms, a raw material amenable to the creation of new meanings. Complete disorder cannot be transformed into communicative innovation, „the system cannot handle formless, loosely coupled elements.” (Luhmann 2012 [1997]: 120.) As we have mentioned, the self-reproduction of functionally differentiated societies comes to be separated from demographic or biological substantial bases. Instead of subjects reproducing themselves sexually, communication comes to be the channel of societal reproduction. Communication may also be directed at future conditions and states. Because communication can be future-oriented, it can also play a role in the creation of new sub-systems. The mass media, as a functional system, is itself a fairly recent result of social evolution and technological change. Such evolutionary innovation is an important aspect of modernity for, as Luhmann emphasizes, „society helps itself if evolution helps it, first, with system differentiation, and, second, with the formation of special media for restricting contingency by linking conditioning and motivation, namely, symbolically generalized communication media.” (Luhmann 2012 [1997]: 122.)

Disseminative Media as Organs of Self-Organization

Media, as selection mechanisms, also allow for the other two components of what we have termed the „neo-Darwinian triad”, contributing to both variation and restabilization. At this point I would, in passing, note the difference between Luhmann’s concept of communication and Jürgen Habermas’ concept of communicative rationality. Because communication as an autopoietic process is irreducible to individual subjectivities or intersubjective structures, it similarly cannot be brought into connection with any form of rationality. Explicitly distancing himself from his theoretical foe Habermas, Luhmann emphasizes the self-generating and autological nature of dissemination as being fundamental for understanding modern communication: „circulation arises where the form is stronger than the medial substratum. It imposes itself in the field of loosely coupled elements—and regardless of selection criteria, rationality considerations, normative directives, or other value preferences—in fact it does so simply as strict coupling.” (Luhmann 2012 [1997]: 119.) Neither communication nor dissemination contain any rationality, and therefore must not adapt themselves necessarily to human preferences. In fact, preferences can be manipulated to accord with the need for circulation, transforming discernment into undiscerning brand loyalty, reducing cultural criteria to those most suitable for large-scale dissemination². Today, in a media landscape saturated by „social” media (a far from trivial question comes to mind: is there any media that is not social?), virality has become an important metaphor in communication studies. (Sampson 2012) The intellectually unsophisticated nature of the most popular content in particular seems to vindicate Luhmann’s theses regarding the autotelic nature of dissemination. It is not so much the message conveyed by a meme or image that is important, or the effect it has on the moral or political values of Internet users, but rather its ability to spread, the speed of its proliferation. Following Charles Sanders Peirce, Luhmann divides communication into three components, specifically information, understanding and utterance. (Luhmann 2012 [1997]: 34.) All three elements are independent of any single substrate; even understanding does not imply a mind, referring instead to the information-processing of functional systems recoding data into information.

There is no form of communication that is not in some way a social construct. Social systems are evolutionary achievements, the mass media included, which are independent of their content. Whether the Internet is filled with pornography or philosophy is irrelevant from the perspective of the media system³. Only content which proves capable of transmitting itself to

as many nodes as possible counts as relevant: disseminative capacity is the sole criterion of intra-systematic relevance, as far as the mass media system is concerned. It must also be emphasized that not all communication is informative, for only new events count as „informative.” As opposed to the selectivity engendered by social systems, it is the role of cognitive systems to store redundant information, as either knowledge or nonsense. (Luhmann 2012 [1997]: 70.) Psychic systems have a role to play in the form of containers for condensed redundant information. Humans as cognitive systems function as data-storage machines, from which the social system can extract redundancies at any time. Communication is always threatened by redundancy, the danger of unimportance and obsolescence. Media is „disseminative media” (*Verbeitungsmedien*) in so far as it is directed at social redundancy. „Dissemination media”, writes Luhmann, „determine and extend the circle of those receiving information. To the extent that the same information is disseminated, information is transformed into redundancy. Redundancy makes information superfluous.” (Luhmann 2012 [1997]: 121.) Paraphrasing this important point, we must emphasize that meaning tends to become obsolescent, in the final instance, all but devoid of sense, in direct proportion to its proliferation. Information that has attained to universal acceptance cannot be called information any longer. This structural law we may label „Luhmann’s Law of Dissemination”, and could form the basis, for instance, of future research into the astoundingly low cultural plane and minimal information value achieved by Internet meme subculture or the general nature of contemporary dissemination media. I would mention in passing one example in passing. Currently the most widely disseminated Twitter post, judging by the number of likes it achieved, is not a universal moral imperative, the heartfelt words of a grieving star or the comforting sentences of an ex-U.S. president, but rather the emotional outburst of a young American man whose lunch went missing. (wikipedia.org 2017) Information is form, whereas dissemination is formless.

Those communications become most popular which were most empty to begin with. As meaning approaches degree zero, the message becomes ever more amenable to translation, distribution and exchange. However, complete formlessness is a limit that is unachievable, for an utterly Dadaist communication remains nothing more than a bizarre outlier or a work of art, integrable within the art system but not the mass media system. Dadaism can even become a method of distinction, separating an artistically literate elite from the uncomprehending masses. When I speak of „formlessness”, I mean something other than

nonsense. Rather, formlessness here would denote the openness of the media system to any and all content able to spread. In itself, when left to its own devices, the mass media tends to favor proliferation, without any other criteria. Of course, because it is exposed to other systems, it must adapt to other modes of filtering as well, such as economic, moral and political constraints on content. Formless communication is an ideal that cannot actually be achieved by dissemination, as no system operates in empty space independently of other systems. Achievement of pure dissemination would constitute a distinction that eradicates social differentiation, a suicidal crossing out of society in general. Communication struggles constantly between two extremes, namely the manufacture of new information and the danger of non-communicative dissolution. Social systems must contribute to their own innovation through the constant discovery of information. Luhmann attributes a highly important role for the mass media in the dual production (and maintenance) of information and redundancy, as well as the „anonymization of social redundancy.” (Luhmann 2012 [1997]: 121.) In modernity, as opposed to previous, less differentiated social forms, communication is pluralized and the „threshold for the nonacceptance of communication” is, by consequence, increased. (Luhmann 2012 [1997]: 122.) Morality becomes loosely coupled with other systems; indeed, differentiation does not allow for an intense moral economy, for this would restrict communicative innovation in too great a measure. Structurally speaking society needs an overproduction of heterogeneous, unpure utterances, otherwise transmission would remain stagnant, infertile, barren. (On the redundancy of universal morality in modernity, see: Luhmann 1989 [1986]: 94-100.) As moral coding, or at least universalist forms of ethics, have become counterproductive from a functionalist perspective, Luhmann views their retreat in a favorable light. At certain points the reader even wonders whether some transgressive libertine ethical viewpoint is at play here, although these suspicions must be bracketed at this point for the sake of brevity. Luhmann is without doubt a conservative, but most definitely in a functional sense: self-referential systems must conserve their boundaries so as to ensure their autopoiesis.

Self-organization cannot operate under conditions of loose coupling or complete openness. Destruction is a possibility that does not escape Luhmann’s attention. Evolution is not synonymous with progress: „evolution theory is not a theory of progress. It accepts the emergence and destruction of systems with equanimity.”⁴ (Luhmann 2012 [1997]: 260.) To equate evolution with progress would be an illegitimate move. Neither would it be wise to

liken functional differentiation to anything resembling a progressive advancement of social life. In itself, the integration of uncertainty into social systems is neutral. Either it ruins society, rendering it fatally open, or it allows for the formation of new redundancies, dynamic structures and complex sub-systems. (Luhmann 2012 [1997]: 271.) In so far as a social system becomes too open, its autopoiesis ceases, rendering it unable to properly filter environmental raw materials. However, excessive closure too may have a similar effect on autopoietic systems. Luhmann views both possibilities as real dangers facing modern society. If functional systems close in upon themselves, they can find themselves vulnerable to new events and cannot adapt to contingencies with new schemes of contingency-management. (Luhmann 2012 [1997]: 309.) Without innovation, new genes, patterns and memes, social systems become unproductive, and eventually implode. Several social forms have met this fate, as well as animal societies with low genetic diversity that proved unable to adapt to environmental changes. The example of the mass extinction of passenger pigeon societies in the late nineteenth century comes to mind here.⁵ Nothing presupposes the maintenance of autopoiesis. It can halt at any time, because of a damaging encounter, or the intervention of a superior actant, or simply overburdening by excessive self-referentiality. Social innovation finds itself challenged by the need for new structures to adapt to their surroundings and the structures amongst which they are nested: „innovated structures have to be adapted to the system and must be compatible with its environmental conditions without advance knowledge (upon selection) of whether and how this can be managed.” (Luhmann 2012 [1997]: 293.) Evolution is a non-linear process of emergence, which cannot be reduced to any teleology. For Luhmann, functional differentiation is the most important social dynamic of modernity. This does not change the circumstance that this entire framework is a self-description of this complex social form, and not in any way a normative prescription. No social science exists that would be anything other than self-referential social self-observation.

Conclusion: Communication Without Rationality

No universal rationality exists that could integrate the operations of various functional systems, for such an all-encompassing rationality would necessitate an impossible synthesis between social systems. (Moeller 2012: 35-6.) Luhmann's entire theoretical endeavor is designed to transcend universalism in the interest of affirming difference, even at the expense of ridding itself of all anthropocentric notions. Any „centrism” is, strictly speaking,

impossible in a functionally differentiated social form, because the various systems program themselves according to radically divergent codes. Not only are they autonomous from human desires and values, but also from one another's codes. In spite of his deanthropomorphizing tendencies, Luhmann nevertheless argues that language has an important role to play in the self-organization of society, because it is through the former that the latter transmits itself. It would seem that language constitutes one of the most important channels of innovation, functioning as a source of novelty, building connectivities even in unexpected places; „with the aid of language, things can be said that have never been said before.” (Luhmann 2012 [1997]: 129.) As soon as new connections are produced, new possibilities arise for viral proliferation, new chances to make further connectivities and translations. From the productivity of language we cannot conclude, however, that innovation necessarily results in an increase in intelligibility, as evinced by the world of Internet memes. Certainly, the playful debasement of language can actually become widespread, aided by the disseminative media.

Human beings must be understood as meaning-condensators, receptacles of social memory. They must remain intact so as to store information that has become redundant. Luhmann is rarely more cynical than when he equates humans to transitory information storage devices: „psychic systems are used, as it were, only for intermediate storage. What is decisive for social memory is the retrieval of memories in later social situations.” (Luhmann 2012 [1997]: 130.) Because storage demands previous processes of selection, social systems are dependent upon the communicativity of human actants. But this by no means entails the impossibility of new, artificial storage and transmission apparatuses. Already much of social communication is actually conducted between machines, and further technological development will only accentuate the dehumanization of communication. From a social systems theoretical standpoint, the ontological status of society's communicative substrate is relatively unimportant. Language and coding are necessary because meaning must be recycled, retrieved and redistributed in order for social innovation and large-scale artificial autopoesis to continue. (Luhmann 2012 [1997]: 131.) Differentiation builds upon differentiation.

NOTES

¹This statement has several important ramifications that would necessitate further research. To mention just one aesthetic and technological example of social reproduction that is independent of human demographics, consider the case of algorithms designed to create poetry. Here is an instance of robots manipulating code in creative, unpredictable and often aesthetically pleasing ways, without the need for any human interference, save for the initial programming phase. Information henceforth creates information. Theoretically, such a process of self-referential communication could survive the extinction of any and all human agents. Communication communicates, in the case of Twitter poetry bots, in the most literal sense of the word. Indeed, in one instance a programmer states proudly that his bot won no less than one thousand poetry competitions over a nine month period, therefore proving the ability of automated communicative algorithms to achieve a high degree of proficiency in the literary arts. (Scott 2016)

² Here I would emphasize once more the similarity between Luhmann's and Derrida's approach to dissemination. For both, it is a process that imposes itself upon subjectivity, an automatism that is autonomous in relation to intentionality. Dissemination goes hand in hand with differentiation. (See also: Wolfe 2010: 212-213.)

³A recent media report highlights a bizarre phenomenon: one of the most widely consumed pornography websites has been plagued by certain users uploading non-pornographic family films. Content, it would seem, does not matter for the media, only dissemination matters in any real sense. (Pleasance 2018)

⁴ In this regard I would cite Gilles Deleuze's mention, in his book on Spinoza, of the creative potential of destruction. Even destructive confrontations are events, and hence must be considered as productive, precisely because of the chaos they unleash: „in any encounter, whether I destroy or be destroyed, there takes place a combining of relations that is, as such, good.” (Deleuze 1992 [1968]): 249.

⁵The latest research into the mass extinction of passenger pigeons in the North American region has highlighted the role of additional factors apart from the undoubtedly maniacal actions of hunters. Specifically, researchers have found that populations of this species of pigeon had extremely low levels of genetic heterogeneity. Natural selection tends to destroy species whose operational closure is excessive. Self-referentiality, if taken to extremes, can damage the chances of survival of both human and animal societies, making adaptation more

difficult. So long as ecological niches remain intact, this is not a problem, but sudden environmental changes can entail complete extinction. (Murray et.al. 2017)

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