

# The myth of the system: On the development, purpose and context of Niklas Luhmann's systems theory

Stefan Roszbach  
University of Kent at Canterbury

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## 1. Introduction

This paper offers an introduction to Niklas Luhmann's life work. We follow the development of his work in chronological order from the year of his first publication (1958) to the mid 1990s. Although the presentation divides his trajectory into two parts – before and after the adoption of "autopoiesis" – we argue that the central concerns in Luhmann's work remained relatively constant over the entire period of 40 years.

In Sections 4. and 5. we give our assessment of Luhmann as a thinker. It is not our intention to argue over the relative merits of this or that concept he was using; instead, we try to characterise his style of theorising and working. Largely drawing on his own self-interpretations, we read his work as a particular variant of mysticism.

## 2. Luhmann's theoretical work in its early stages

There is little in Niklas Luhmann's early biography that could be taken as an indication of his later fame as a professor of sociology. After his release from captivity, Luhmann decided to study law because he felt that law was "one possibility of creating order in the chaos in which one was living". It is intriguing that Luhmann frequently refers in this context to the injustice he experienced in captivity, when he was beaten up by the Americans and his watch was taken away. Having experienced such "violations of the Geneva Conventions", Luhmann became interested in the possibilities and limits of law. But it was Roman Law, not contemporary law that caught his interest – "Roman law, yes, because there you could see most clearly the finesse (Geschick) of the construction [...]"<sup>1</sup>

He studied law at the University of Freiburg between 1946 and 1949 and then returned home to Lüneburg, where he worked as a junior barrister at a local law firm. Five years later, in 1954, he felt that his work could be easier and more effective if he could work under just one and not several superiors and decided to become a civil servant at the Oberverwaltungsgericht Lüneburg. After just one year he profited from a change of government in Niedersachsen and became referee at the local parliament in Hannover, where he was in charge of a juridical review of cases of reparation for victims of the Nazi-regime. A further advance in the administrative hierarchy, however, was barred because Luhmann had not followed the standard career path of a civil servant and, in addition, refused to become member of a political party. When confronted with the requirements he would have to fulfil if he were to apply for further promotion, he responded "I am reading Hoelderlin".<sup>2</sup> It was at this time that Luhmann became interested in a career in "science" (Wissenschaft).<sup>3</sup> By accident, he found on his desk a prospectus for a Harvard-fellowship that he was asked to pass on to interested candidates. But Luhmann himself became an applicant, and his application was successful.

In Harvard Luhmann met Talcott Parsons, and he spent a lot of time working his way into the Parsonian system. But this encounter was not the sensational key event that would turn Luhmann into a sociologist and systems theorist. Although there is no question that Luhmann learned from Parsons' system, that he agreed fundamentally with Parsons on the need for a *general* theory of society, and that he had a good personal contact to Parsons, Luhmann had by that time already developed his own sociological and philosophical interests. He was not absorbed by Parsons' system but, from the beginning, analysed it from the outside with a view to identifying its flaws. In particular, Luhmann disagreed with Parsons on the meaning of the functional method and quickly became frustrated as Parsons failed to grasp the point of disagreement.

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<sup>1</sup> Interview with Niklas Luhmann, by Wolfgang Hagen, Radio Bremen, October 2, 1997, at [http://www.radiobremen.de/rbtext/rb2/\\_wissen/w71002.htm](http://www.radiobremen.de/rbtext/rb2/_wissen/w71002.htm).

<sup>2</sup> "Biographie, Attitüden, Zettelkasten", p.132.

<sup>3</sup> "Biographie, Attitüden, Zettelkasten", pp.134-135; also "Die Selbstbeobachtung des Systems -- Ein Gespräch mit dem Soziologen Niklas Luhmann", interview conducted by Ingeborg Breuer, in Frankfurter Rundschau, 5.12.1992, p.ZB2.

In the late 1950s Luhmann's readings focused on the phenomenological tradition, on Descartes and, most importantly, Husserl, and he was thereby led to Alfred Schuetz and to sociology. Looking back at this time, Luhmann also mentioned an interest in Kant, but apparently did not find much inspiration in Hegel and Marx. In sociological theory, Luhmann studied the early functionalism of Malinowski and Radcliffe-Brown, and hence developed an interest in cultural anthropology and ethnology. However, he always disliked the German philosophical anthropology.<sup>4</sup>

When he returned from Harvard, Luhmann was determined to switch from administration to "science". A first step was taken by moving to the newly founded research institute at the University of Speyer, where he completed and published his book Funktionen und Folgen formaler Organisation (1964). The move to a university was not without problems for Luhmann because he was an "Oberregierungsrat" and would have lost a significant proportion of his salary and many of the entitlements of his status if he had started all over again as a university assistant. But then a miracle happened. Luhmann got to know Helmut Schelsky as he covered Schelsky's teaching ("Vertretungsprofessur") for a term in Muenster. Schelsky not only promoted Luhmann to the position of head of department at the Sozialforschungsstelle Dortmund but also suggested him as professor of sociology at the soon to be founded University of Bielefeld. Schelsky was very much involved in the foundation of the new university and promised Luhmann that Bielefeld would be "different"; it was meant to be a reform university with a strong emphasis on research and interdisciplinary work. Luhmann hesitated because he had always envisioned the university as something small, narrow and repetitive, but he eventually gave in to Schelsky's enthusiasm.<sup>5</sup> In 1966, Luhmann's Funktionen und Folgen formaler Organisation and his Recht und Automation in der oeffentlichen Verwaltung (1966) were accepted as dissertation and "Habilitation" at the University of Muenster by Helmut Schelsky and Dieter Claessens. Luhmann gave his inaugural lecture under the title "Sociological Enlightenment" on January 25, 1967, in Muenster. He became the first professor to be appointed at the new University in Bielefeld, where he took up a chair in sociology in 1968. Although, according to Luhmann, Schelsky's hopes that Bielefeld could become a "different" university were disappointed – Bielefeld became a "pretty normal university" (Luhmann) – Luhmann apparently never seriously considered leaving the place in spite of attractive offers from US universities (Stanford).

By 1968 Luhmann was established as a professor of sociology in the world of science, and he was now in a position to devote himself entirely to his theoretical interests. His work at this time centred on three interrelated concerns. First, there was the critique of Parsons' functional method; second, there was the programme of "sociological enlightenment" – a label which Luhmann kept throughout his writings, even in the 1990s; and finally, there is the problem of the "universality" or "generality" of a theory of society.

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<sup>4</sup> "Biographie, Attitüden, Zettelkasten", pp.132-133.

<sup>5</sup> "Biographie, Attitüden, Zettelkasten", p.131; Interview with Niklas Luhmann, conducted by Heidemarie Renk, Margaretha Sudhof on 22.12.1989, transmitted by the Hessischer Rundfunk on 11.2.1990.

## 2.1. Functions, problems, systems

Luhmann attempted to understand the functional method as a method for searching for alternatives -- as a technique of comparing – rather than as a causal explanation.<sup>6</sup> Functionalism as it was practised by Parsons ultimately led into the well-known circularity where everything that happened within a given structure or system was causally reduced to the necessity of preserving the original structure. The question of what the function of structures or systems in general might be could not be asked in this design.<sup>7</sup> For Luhmann, however, a reference to a function never prescribed in what specific way it was to be fulfilled. Inspired by the mathematical notion of “function”, Luhmann presented in his very first publication (1958) the reference to a function as an opening of a (limited) space for a variety of possible causes that might all bring about the desired effect. Functional analysis, thus, could not be a search for causal laws understood as a relation between one cause and one effect; functional analysis had to be seen as a search for functionally equivalent causes with regard to one problematic effect.<sup>8</sup> It was, then, a search for possibilities of replacement and substitution.<sup>9</sup> Therefore, a function should be understood as a problem to which several (or none) solutions might exist.<sup>10</sup> The formula of the problem finally replaced the old formulae of system maintenance and preservation.<sup>11</sup>

According to Luhmann, this slight shift of perspective, taken seriously, entailed a departure from “ontological metaphysics” which accepted as being everything that was not non-being and thereby excluded from the sphere of true being phenomena of becoming, vanishing, movement as well as the mere possible. The ontological view of the world approached the world in an abstract manner, looking for constant features rather than principles of variation. Luhmann’s functional method cannot define identity – that is, being over time -- as an exclusion of other possibilities; it considers identity as an organisation or order of “other possibilities”. Thus, identity is never a self-sufficient substance but a co-ordinating synthesis, a *system* which always contains references to other possibilities and which therefore always remains fragile, problematic.<sup>12</sup> The essence of things cannot be defined by, or reduced to, some given kernel of substance; if things have essences then these must lie in the positions things occupy in a texture of other possibilities, i.e. by the conditions of their replacement.<sup>13</sup>

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<sup>6</sup> This is how Luhmann later, in 1985, presented the origin of his project in "Vom menschlichen Leben", interview with Niklas Luhmann, conducted by Marilena Camarda, Alessandro Ferrara, Giuseppe Sciortino, Alberto Tulumello, in Dirk Baecker, Georg Stanitzek, Niklas Luhmann -- Archimedes und wir, pp.38-57 (48).

<sup>7</sup> See e.g. *Soziologie als Theorie sozialer Systeme*, pp.113-114; *Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse*, Lecture held at the 16. Deutscher Soziologentag, Frankfurt 1968, in Jürgen Habermas, Niklas Luhmann, Theorie der Gesellschaft oder Sozialtechnologie -- Was leistet die Systemforschung?, (Frankfurt a.M.: Suhrkamp, 1971), p.14.

<sup>8</sup> See Niklas Luhmann, *Der Funktionsbegriff in der Verwaltungswissenschaft*, *Verwaltungsarchiv*, Vol.49, No.2, April 1958, pp.97-105, especially pp.98-100.

<sup>9</sup> *Funktion und Kausalität*, pp.13-14.

<sup>10</sup> A crucial text for the following is the 1962 article *Funktion und Kausalität* which summarizes how the transformation of functions into problems amounts to an exit from causal science. See e.g. pp.17-18.

<sup>11</sup> See e.g. *Funktionale Methode und Systemtheorie*, pp.31-34.

<sup>12</sup> *Funktion und Kausalität*, pp.15,26.

<sup>13</sup> This formulation in Luhmann, Vertrauen, p.2.

2000 years of searching for the substance led, Luhmann explained, to a universal problematisation of identity, unity, stability or of being in general. From now on, each identity has to be understood as a system, i.e. as a structured openness for other possibilities.<sup>14</sup> In Luhmann's work, the notion of "system" stems from a cluster of concepts which includes "being", "identity", "problem". A system is not, therefore, a pre-conditional or unconditional entity; it does not stand for a first or ultimate cause but instead represents a problematic invariance which requires stabilisation; and this stabilisation, as a process, always occurs in an unstable environment and can proceed along various possible ways.<sup>15</sup>

By implication, a universal systems theory based on these assumptions turns everything that appears self-evident into problems and all substances into functions. Understood as a methodological prescription, such a theory demands that for every "thing" that *is* we find a reference point from which it can be questioned with regard to its *replaceability*. For Luhmann, this change of perspective entails an advance in rationality because it is not based anymore on the certainty that being [das Seiende], in some of its qualities, remains what it is. On the contrary, the advance consists in a new certainty that, under specific circumstances, being need not remain itself. This perspective gives access to a specific kind of freedom, a *libertas indifferentiae*, attainable through cognisance [Erkenntnis].<sup>16</sup>

At first, Luhmann proposed this perspective as a universal research *method* capable of unifying the social sciences and then wondered whether a unifying *theory* would be possible as well.<sup>17</sup> By replacing the concept of the function with the concept of the system as the most important concept in his thinking, Luhmann gave implicitly an affirmative answer to this question: *systems theory* became the preferred label for his work.<sup>18</sup> But this change in the early and mid 60s is a synthesis rather than a shift from method to theory. As an implicit theoretical claim, Luhmann's method presupposes an inversion of the "traditional" view of the world as a sphere of necessities with no room for the facticity of the mere possible. Instead the world is contingency itself, and it is the facticity of necessities which now poses the problems. In other words, the world does not provide validities but only the problem of validity.<sup>19</sup> As a theory, in turn, Luhmann's perspective had to have strong implications at the level of methodology as well. The notions of theory and method merged.

In that "ontological metaphysics" isolated the system by defining its being via its internal relations and its independence, it neglected the system's environment. And since stability was an inherent quality of being, "problems" had to seem unstable and transient as a matter of principle. Luhmann's functional systems theory, in contrast, understands precisely the stabilisation of a system as the *permanent* problem of maintaining the *relative* invariance of the system's boundaries in an unsteady environment – an environment, in fact, which

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<sup>14</sup> Funktionale Methode und Systemtheorie, pp.44-45.

<sup>15</sup> See also Luhmann, Funktionen und Folgen formaler Organisation, pp.395-397.

<sup>16</sup> Funktionale Methode und Systemtheorie, p.47.

<sup>17</sup> Funktion und Kausalität, p.27.

<sup>18</sup> Programmatic: Funktionale Methode und Systemtheorie.

<sup>19</sup> See Systemtheoretische Argumentationen: Eine Entgegnung auf Jürgen Habermas, in Habermas, Luhmann, Theorie der Gesellschaft oder Sozialtechnologie -- Was leistet die Systemforschung?, pp.291-405 (379-380).

changes regardless of the system.<sup>20</sup> From the outset, then, Luhmann's theory is about the system *and* its environment; it has always been a system/environment-theory.<sup>21</sup> The identity of the system is not a self-sufficient *unity or oneness* but the *difference* between system and environment. The universal problematisation of identity corresponds to this decision to start theorising with the introduction of a difference rather than of an identity or unity.

There is no adequate logic for the concept of "problem". If a problem uniquely prescribed its solution, it would cease to be a problem as it would immediately evoke its one and only (dis)solution. The concept of the problem always implies that there are several possible solutions so that the actually selected solution cannot be deductively inferred from the problem. Hence, Luhmann concluded that logical deduction was to be replaced by a thoughtful and careful reception of empirically found structural responses to problems.<sup>22</sup> Moreover, if the actually implemented solution was nothing but a selection from a variety of possibilities, the solution could not be the endpoint in the history of the problem because its implementation was based on the exclusion of other settlements. Instead, solutions always multiplied, proliferated, dispersed, circulated, diversified, diffused the original problem.

Luhmann insisted that a theory which conceptualises the relationship between problem and solution must not repeat the mistake of dialectics (of the Hegelian variant), that is, it must not ascribe the quality of a motive, tension, incentive or impulse to problems in general. By implanting stimuli for the search for solutions already into a problem or contradiction, dialectical theories have no choice but to elevate the problematic of the problem to the level of facts without reflection and to consider problems as inherently unstable. This view, which Luhmann finds implicit in Hegel and Marx, equated broken logic with the inevitability of change, development, progress. It reflected a specific pre-conception of man as filling the gap between the recognition of a problem and between the vision and creation of a new situation.<sup>23</sup> The problem was, then, to depart from dialectics and to build a theory with the concept of the problem in its centre without evoking transcendental conceptions of man who, as a problem-solver justifying solutions but not problems, bridges the gap between problem and solution.

## 2.2. Sociological Enlightenment

"Sociological Enlightenment" was the title of Niklas Luhmann's programmatic inaugural lecture in 1967.<sup>24</sup> It also became the title of a series of books in which he collected articles already published in journals as well as chapters originally written for these volumes. For Luhmann, the compilation of these books provided an occasion to look back at his writings from preceding years, to locate gaps, omissions, and deficiencies. Six of these books were

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<sup>20</sup> See e.g. *Funktionen und Folgen formaler Organisation*, pp.23-24; *Funktionale Methode und Systemtheorie*, pp.39-41.

<sup>21</sup> *Funktionale Methode und Systemtheorie*, pp.39-40.

<sup>22</sup> *Die Praxis der Theorie*, p.261.

<sup>23</sup> *Funktionale Methode und Systemtheorie*, pp.33-35.

<sup>24</sup> A revised version of the lecture was published in *Soziale Welt*, Vol.18 (1967), pp.97-123, and then later in *Soziologische Aufklärung 1*, (Opladen: Westdeutscher Verlag, 4th ed. 1974), pp.66-91.

published in 1970, 1975, 1981, 1987, 1990, and 1995 respectively. Thus, the title "sociological enlightenment" accompanied Luhmann's writings from the 60s to the 90s.

What is sociological enlightenment? According to Niklas Luhmann, the Enlightenment project was based on two central propositions. First, there was the idea of an equal participation of all people in some common "reason" that existed without institutional mediation. And, second, there was the characteristic Enlightenment optimism which took for granted man's and society's ability to bring about right, true, and reason-able situations. Sociology, Luhmann observes, did not emerge on the scene as an application of Enlightenment principles but rather as an attempt to delineate the *limits* of Enlightenment. For this purpose, 19<sup>th</sup> century sociology invented the technique of "incongruent perspectives":<sup>25</sup> the meaning of an action could not be reconstructed by adopting the standards employed by the actor but by applying standards which are alien to the action in question. Marx deduced thought from economic conditions of life which did not have to be part of thought; Freud's arguments were structurally equivalent to Marx's only that he referred to libidinous impulses; and Nietzsche approached Christianity in strictly irreligious terms.<sup>26</sup> From such "incongruent perspectives" the social determination of the actor appeared to go much beyond what the actor might have been prepared to admit. Suddenly, the world of the actor appeared as a kind of illusion, full of tricks fulfilling functions that remained unconscious. The confrontation of the actor and his free will with this life-preserving chimera amounted to a discreditation of the actor, culminating in the delicate consequence that he now had to be emancipated -- as if he had been a slave before.

Luhmann's functional systems theory wants to change this perspective from "discreditation" and "unmasking" to "overtaxation" and "overcharging". The world of the actor is not an illusion driven by unconscious ulterior purposes but an *incomplete selection* whose incompleteness is made necessary by the fact that the comprehension of world complexity must be co-ordinated with the possibilities of its reduction. World complexity, in other words, becomes comprehensible and even accessible only through selectivity, i.e. through the reduction of complexity.

These formulations were made possible by a conceptual shift in Luhmann's writings in the second half of the 60s. Complexity replaced as the most important concept the concept of the system, which earlier had already succeeded the concept of the function as the key term. Luhmann proposed complexity as the ultimate reference point for functional analysis. It was the function of a social system to make world complexity accessible by reducing it, i.e. by shifting the problem of complexity from the outside to the inside of the system which, after this process of concretisation, represented *selected* aspects of complexity to which it could respond.<sup>27</sup>

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<sup>25</sup> A term Luhmann picks up from Kenneth Burke, Permanence and Change, (New York: , 1935), pp.95n; see Soziologische Aufklärung, p.68.

<sup>26</sup> Soziologische Aufklärung, p.68.

<sup>27</sup> For this move see Reflexive Mechanismen (1966), p.105; Soziologie als Theorie sozialer Systeme (1967), p.115; Soziologische Aufklärung, pp.71,74,80-81; Zweckbegriff und Systemrationalität (1968), pp.346-349; Vertrauen, p.3; Die Praxis der Theorie, pp.253,256,262,264.

The concept of complexity entered Luhmann's writings at first as a kind of panacea lacking a precise definition. Complexity sometimes denoted the totality of all possible events (world complexity), and at other times the relation between the system and the world. This latter relationship was always asymmetric because, for all real systems, including biological and physical systems, the world was excessively complex in the sense that it always contained more possibilities than the system could respond and adapt to.<sup>28</sup> A system was called complex if its structure was compatible with a variety of possibilities.<sup>29</sup> The slope of complexity between the world and the system was later specified as the difference between the indeterminate, undeterminable, "unmanipulatable" complexity of the world and the concrete, determinate, "manipulatable" complexity a system represented to itself.<sup>30</sup>

Departing from the systems theory of the natural sciences, which uses the number of elements or the degree of internal differentiation of a system as a measurement of complexity, Luhmann understood complexity as the problem to which the building up of systems was a "solution".<sup>31</sup> However, in this provisional design, world complexity as such remained inaccessible for functional analysis; it turned transcendental. Luhmann acknowledged the problem in his exchange with Habermas in the late 60s, early 70s, expressing a dis-satisfaction with the term complexity and the way he had handled it before.<sup>32</sup> To some extent, Luhmann recalled the term in the following, partly because of its deficiencies, partly because some of its functions were taken over by the newly refined concept of "meaning". In a new version of the concept, suggested in 1978 at the latest, complexity referred to situations of "enforced selectivity", in which systems could not connect all their elements with all the other elements.<sup>33</sup> This is the version which Luhmann maintained throughout his later work.

The world, then, was a problem not with regard to its being but with regard to its complexity.<sup>34</sup> Under the headline of the reduction of complexity, everything (with the world as the only exception) became comparable to everything else. In particular, any alleged limitation of what was possible, any proposal of an objective order of subjective experiences represented just one way of reducing the true complexity of the world and as such could be problematised in comparison with other ways of reducing complexity. Luhmann claimed that this perspective rendered the limits of Enlightenment thinking visible. It represented, therefore, an enlightenment on Enlightenment. Sociological enlightenment was an enlightenment which had turned reflexive.<sup>35</sup> Its goal was de-dogmatisation and it wanted to achieve this goal by exposing every limitation imposed on meaningful problematising as a positively defined constancy. Accordingly, Luhmann's sociology entailed a permanent on-

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<sup>28</sup> Vertrauen, p.5.

<sup>29</sup> Soziologie als Theorie sozialer Systeme, p.116.

<sup>30</sup> See e.g. Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse, pp.11,15-16,19.

<sup>31</sup> Die Praxis der Theorie, p.261.

<sup>32</sup> See Systemtheoretische Argumentationen: Eine Entgegnung auf Jürgen Habermas, p.295; see also the self-critical remarks in the preface to the first edition of Soziologische Aufklärung 1, p.5.

<sup>33</sup> See Handlungstheorie und Systemtheorie (1978), p.55.

<sup>34</sup> Soziologie als Theorie sozialer Systeme, p.115.

<sup>35</sup> Soziologische Aufklärung, pp.80,86.

going decision-making with regard to what structures were not being problematised for what purposes. Sociology was thereby forced to accept responsibility for itself.<sup>36</sup>

Another important consequence of sociological enlightenment was the reintroduction of history to sociology. With its optimism towards equality, the Enlightenment had required the levelling and smoothing of differences which were "only" historical and not rooted in nature or reason. Equality and freedom converged in a hostility towards history. The repelling of history corresponded to the postulation of a metaphysics of intersubjectively valid reason. In contrast, sociological enlightenment included history not because it valued tradition but because history itself was a means for the reduction of complexity: by disappearing into the past, events lost their "replaceability", i.e. their quality that they could also have been different. A typical question of sociological enlightenment was, accordingly, how the entering into the past solidified aspects of the world. Hence, it was not history as such, as a reservoir of "objective" facts, which interested the sociologist, but history as it was present in the present and as it was a precondition of the future.<sup>37</sup>

Over the following 25 years, more characterisations of sociological enlightenment were given. In 1979 sociology was presented as the "science of the second view" -- a terminology which anticipated the semantics of "second order observation" of the late 80s/early 90s to which I will return later.<sup>38</sup> In 81, sociology was the science of societal self-reflection, even if reflection took place in a subsystem of society: in science.<sup>39</sup> Three years later, the task of sociology was given as an enlightenment of society on its own complexity.<sup>40</sup> In the preface of the fourth volume of "Soziologische Aufklärung", published in 1987, Luhmann explained again that sociological enlightenment was not an unmasking critique or the ultimate disclosure of what society really was but an observation which observed itself, a description which described itself.<sup>41</sup> The following volume indicated in the preface, written in March 1990, that what was and had always been at stake in sociological enlightenment was "a critique of knowledge".<sup>42</sup> One of the later formulations (1991) summarised the program of sociological enlightenment as an attempt to create a semantic space in which modern society could reflect upon itself.<sup>43</sup>

### 2.3. Universality

The universal problematisation of identity and the refusal to accept any kind of *a priori* were mutually implicative. The universality of this refusal had important methodological consequences for the type of work that attempted to implement these standards. For example, the very field of inquiry the work tried to cover could not be taken for granted. In

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<sup>36</sup> Sinn als Grundbegriff der Soziologie, pp.85-86.

<sup>37</sup> Soziologische Aufklärung, pp.82-85.

<sup>38</sup> Unverständliche Wissenschaft, p.170.

<sup>39</sup> Wie ist soziale Ordnung möglich?, pp.198-199.

<sup>40</sup> Die Differenzierung von Interaktion und Gesellschaft: Probleme der sozialen Solidarität, p.92.

<sup>41</sup> Vorwort, in Soziologische Aufklärung 4, p.6.

<sup>42</sup> Vorwort, in Soziologische Aufklärung 5, p.7.

<sup>43</sup> Niklas Luhmann, "Ich denke primär historisch" -- Religionssoziologische Perspektiven, Ein Gespräch mit Fragen von Detlef Pollack, in Deutsche Zeitschrift für Philosophie, Vol.39 (1991), No.9, pp.937-956 (938).

fact, it could not be defined as a substance which was specific in that it was different from everything else because such a definition would have required us to accept this difference and specificity as an *a priori*. Hence, whatever the work picked up as a problem, the problem itself remained problematic. In such a situation, one can either try to skilfully avoid defining the subject matter of one's work or start theoretical work with universal claims. From the outset, Luhmann chose the second option and, accordingly, the specificity of his work does not lie in a limited range of topics but in the configuration and geometry of its concepts. The claim to universality turns out to be, then, a certain form of not making claims at all; in Luhmann's self-understanding, it expresses a form of modesty.

Theoretical work evolving according to those standards of universality can neither accept some unconditional beginning nor some kind of end. The work must, of course, begin somehow and somewhere but then, after some time, must be able to return to where it started and re-problematise its starting point. Clearly, the design of such a theory must be recursive, i.e. self-referential. The reflexivity of the program of sociological enlightenment re-appears here as the methodological implication of the rejection of *a prioris*. This requirement of reflexivity goes beyond the usual academic litany that one should always be modest and reflexive in one's work and that one should always look at it from a meta-perspective. The problem for Luhmann was to design a theory whose architecture was flexible enough to handle this re-entry of the theory into itself. The problem, in other words, was to work in a theoretical frame which could not even take itself for granted but which would nevertheless continue to "grow" if allowed to unfold according to its own standards.

The key to the problem was the relation between observation and self-observation as it was - or was not -- manifested in the theory's architecture. In that universal claims or doubts could not but include the entity that expressed those claims or doubts, they forced a theory to realise at least some capacity for self-observation. Somehow the theory must make explicit how it theorises about itself and where it locates itself in its universal claims. Claims to universality enforce, then, an oscillation between observation and self-observation, i.e. between self- and hetero-reference, and thereby transform a theory into a kind of research practice, into an attitude towards sociological research.<sup>44</sup> From the outset, this effect is intentional in Luhmann's work; in fact, it constituted one of the features that gave unity and continuity to his work. The early, purposeful conflation of "method" and "theory" was as much part of this problem as was Luhmann's inclination to speak of the "practice of theory".<sup>45</sup> In an interview of 1985, reporting how he came to be interested in science, Luhmann explained that he had been fascinated by the idea that a theory became more complex like a practice when it was given time and the possibility to improve its propositions according to its own standards.<sup>46</sup> In 87, he added that a methodology of this type presupposed an open future with the prospect of infinite continuation (with self-produced operations).<sup>47</sup>

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<sup>44</sup> Luhmann describes universal theories as a "field of experience" for the oscillation between external observation and self-observation. See *The Autopoiesis of Social Systems*, p.188.

<sup>45</sup> *Die Praxis der Theorie* (1969).

<sup>46</sup> "Biographie, Attitüden, Zettelkasten", p.135.

<sup>47</sup> Niklas Luhmann, *Die Richtigkeit soziologischer Theorie*, in *Merkur*, Vol.41 (1987), pp.36-49 (42).

Another justification of claims to universality was Luhmann's continuous effort to make sociology responsible for what it produced by giving positivity to its position. For too long sociology had been a hiding-place for easy critique, opposition, and “deconstruction”, which all legitimated their inability to replace what they destroyed as “Wertfreiheit” [value-freedom].<sup>48</sup> To represent the unity of sociology as a discipline in a theory, however, required universality: all aspects of social life had to be covered -- again: including the theory itself. Throughout his project, Luhmann tried to define this unity as a common problematic [Problemstellung]. His first proposal, as already mentioned, was to look for a sufficiently abstract problem which united sociology in that everything considered to be part of social life appeared as functionally equivalent with regard to its being a response to that problem. For some time, until the early 70s, the problem of the reduction of (world) complexity served as such a unifying problematic although Luhmann was never completely satisfied with this design.<sup>49</sup> The attempt to define sociology positively was complemented by parallel attempts to give positivity to the all-encompassing social entity, i.e. to society, which, for Luhmann, could only be world society.<sup>50</sup> This concern made it necessary that the concept of the social system was to be defined in such a way that society, too, would turn out to be such a system.<sup>51</sup>

The necessity of a recursive theory design, of reflexivity and therefore the necessity to locate self-reference somewhere in that design was evident in Luhmann's work from the outset -- even before he explicitly introduced sociological enlightenment as a reflexive enlightenment. However, the issue of self-reference not only appeared as a methodological problem or solution; from the beginning, it was also thematised as an aspect of social life. An article of 1966, entitled “Reflexive Mechanisms”, presented the possibility that processes become reflexive -- e.g. that it was learned how to learn, decided how to make decisions -- as a product and condition of civilisation. If such steps of reflexiveness were connected in series, a process could dramatically increase its selectivity, i.e. its ability to reduce complexity. In fact, reflexivity was a response to complexity. Already in the mid 60s, then, the differentiation and functioning of systems was closely linked to reflexivity, i.e. to the ability of systems to apply their operations to their operations.<sup>52</sup> Slowly but surely, over

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<sup>48</sup> See e.g. *Soziologie als Theorie sozialer Systeme*, p.113; *Soziologische Aufklärung*, p.86; Vorwort, in *Vertrauen*, p.v; the idea to present value-freedom as a means of unburdening, of relieving sociology from complexity is from *Die Praxis der Theorie*, p.256-257; see also the remarks on the de-dogmatization of sociology in *Sinn als Grundbegriff der Soziologie*, pp.85-86; the necessity of an autonomous architecture of concepts is emphasized, with reference to Parsons, in *Macht*, p.17.

<sup>49</sup> *Die Praxis der Theorie*, pp.260,262; *Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse*, p.11.

<sup>50</sup> See e.g. Niklas Luhmann, *Die Weltgesellschaft*, in *Soziologische Aufklärung 2*, (Opladen: Westdeutscher Verlag, 2.Aufl. 1982), pp.51-71; first published in 1971 in the *Archiv für Rechts- und Sozialphilosophie*, Vol.57, pp.1-35; also *Selbst-Thematisierungen des Gesellschaftssystems*, in *Soziologische Aufklärung 2*, pp.72-102 (82), first published in the *Zeitschrift für Soziologie*, Vol.2 (1973), pp.21-46; *Macht*, p.97; *The World Society as a Social System*, *International Journal of General Systems*, Vol.8 (1982), pp.131-138; etc.

<sup>51</sup> For a discussion (1968) of why society should be understood as a system and for an early scepticism presenting society (and not: social change) as the real crux of systems theory, see *Moderne Systemtheorien als Form gesamtgesellschaftlicher Analyse*, pp.15-24.

<sup>52</sup> The 1966 article *Reflexive Mechanismen* also introduced the distinction between reflexivity and reflexion depending on whether an act refers to another act of similar kind or to the system which it is part of respectively. See pp.99-100.

the next 10 years, these early indications condensed. In 1967, Luhmann observed that the old hierarchical-transitive models implicitly presupposed that what brings about change was "stronger", "higher" or "more persistent" than what changes, and added that this bias did not fit the empirical evidence of, say, the relationship between politics and administration. Here, an unstable part of a system -- politics -- is certainly able to direct a more stable part -- administration. He concluded with a call for circular models.<sup>53</sup>

In the written version of his inaugural lecture, Luhmann referred to the circular interdependence of causal relations as the main reason why a disentanglement of those relations in form of asymmetrical causal laws ultimately failed. The permanence of the conditions which the system exploited by existing usually depended itself on the existence of the system.<sup>54</sup> Not much later, he proposed a cyclical relationship between action and action system -- one presupposed the other -- and was surprised by the proximity of cybernetics and his functional systems theory.<sup>55</sup> In the early 70s, Luhmann published an article on the self-thematisation of society, subtitled as "On the category of reflection from the perspective of systems theory", in which he discussed the relationships between concepts such as reflexivity, reflection, self-thematisation, self-abstraction, self-hypostatisation. A first hint was given that a systematic employment of such terms might amount to an exit from the philosophy of the subject precisely by generalising what had been the subject's privilege: self-reference.<sup>56</sup> And in 74, Luhmann emphasised that, to a great extent, our cultural tradition was brought about by self-selective, auto-catalytic processes, which were made possible and impelled by the use of communicative media.<sup>57</sup>

By 1975, it was clear to Luhmann that self-reference somehow had to be a central pillar of his project. In a crucial article published in that year, he reflected on how other pillars -- systems theory, the theory of evolution, the theory of communication -- had all become self-referential. A theory of society was a reflection of society upon itself and social systems might contain, entail, or be based on reflexivity. Newer theories of evolution explained later stages of evolution not by teleology but by references to earlier stages of evolution. Finally, a theory of communication was communication about communication. As a next step, then, Luhmann proposed to connect a variety of self-referential theories in order to form a unified theory, but groans with regard to the implied terminological problems. The argumentation, he added, would neither be linear nor cyclical, but labyrinthine; its goal was the production of contingent (not: final) truths. He ended on an optimistic note, proclaiming that there were theoretical contexts in which it was possible to learn without restricting abilities to learn.<sup>58</sup>

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<sup>53</sup> Soziologie als Theorie sozialer Systeme, p.126.

<sup>54</sup> Soziologische Aufklärung, pp.70-71.

<sup>55</sup> Zweckbegriff und Systemrationalität, pp.8,157-158. Luhmann refers to Norbert Wiener's classic, which more or less inaugurated the science of cybernetics.

<sup>56</sup> Selbst-Thematisierungen des Gesellschaftssystems, in Soziologische Aufklärung 2, pp.72-102, first published in the Zeitschrift für Soziologie, Vol.2 (1973), pp.21-46.

<sup>57</sup> Einführende Bemerkungen zu einer Theorie symbolisch generalisierter Kommunikationsmedien, in Soziologische Aufklärung 2, pp.170-192, first published in the Zeitschrift für Soziologie, Vol.3 (1974), pp.236-255.

<sup>58</sup> Systemtheorie, Evolutionstheorie und Kommunikationstheorie, in Soziologische Aufklärung 2, pp.193-203. The paper is a revised version of a lecture given at the Amsterdam Festival of Social Sciences, April 7-18, 1975.

Still, in the preface to the second volume of *Soziologische Aufklärung*, he presented his ideas as transient, as a "Nullserie" in his production of theory, and indicated that corrections were likely to follow.<sup>59</sup>

### 3. Autopoiesis

Independently of Luhmann's efforts, the mid 1970s witnessed a new development in general systems theory which would soon become highly fashionable in the early 1980s. The important innovation lay in a generalisation of the concept of self-organisation, which had been popular since the 1960s. Not just the structures, but even the system's elements were now considered to be produced by the system itself. The elements are the system's last components, which are, at least for the system itself, undecomposable. Thus, in the second half of the 1970s, the systems of general systems theory became truly self-referential. In order to distinguish the new idea from the earlier notions of self-organisation, the two Chilean biologists Humberto R. Maturana and Francesco J. Varela coined a new word for it: *autopoiesis*, which, translated from Greek, means something like self-production.<sup>60</sup> Autopoietic systems are systems which produce and reproduce the elements they consist of with the help of the elements they consist of. And everything these systems use as unity -- their elements, processes, structures, the systems themselves -- is being produced and determined precisely by those unities *within* the system. There is, then, no input of unity into the system and no output of unity out of the system.

Two metaphors may help explain system/environment relationships for autopoietic systems. First, imagine someone dreaming how he prepares a dinner for his girlfriend and himself at a lovely summer evening. He sees himself cooking, laying the table, lighting the candles, and then, eventually, his alarm clock rings. But, instead of waking him up, the noise is incorporated into the dream as the longed for doorbell: his loved one has arrived and the dinner can begin (and the dream can continue).<sup>61</sup> In this situation, causality is "produced" by the ongoing dream. It is the dream, who, according to its own internal dynamics, is able to pick up the noise coming from its environment and transform it into an *irritation*; it is the dream, who assigns the status of a cause to the noise and produces order from that noise. For an autopoietic system, too, openness is a result of the system's activities; it is an achievement (which may still have disastrous consequences for the system). The environment offers impulses and perturbations but it is not able to determine their effects on the system. Thus, the concept of autopoiesis goes beyond and, in some sense, generalises the distinction between "open" and "closed" systems. Autopoietic systems are self-referentially closed, they evolve according to their internal dynamics and thereby produce openness; they produce openness on the basis of closure. They reproduce themselves precisely by submitting themselves to this self-reproduced selectivity.

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<sup>59</sup> Vorwort (May 1975), in *Soziologische Aufklärung 2*, p.5.

<sup>60</sup> Humberto R. Maturana, Francesco J. Varela, *Autopoiesis and Cognition: The Realization of the Living*, (Dordrecht: Reidel, 1980).

<sup>61</sup> This is the way Gunther Teubner illustrated system-environment relations in his seminar "Autopoiesis in Law and Politics" (Fall 1991) at the EUI.

A second metaphor which illustrates the same point has become famous in a somewhat different context: the butterfly effect. Exemplifying the possibility that, in a non-linear context, microscopic fluctuations may induce macroscopic changes, the butterfly effect refers to a situation where a butterfly, happily beating his wings over Copenhagen, "causes" a local turbulence which is then amplified to a hurricane over the Atlantic. For the causal sciences, this possibility posed severe problems, which even led to the inauguration of a new science: *Chaos Theory*. However, the butterfly effect will look rather different if our interpretation emphasises self-reference instead of asymmetrical causal relations. For, after all, butterflies do not cause hurricanes independently of the weather conditions. It is the weather which, at some point or other and always according to its own internal dynamics, opens itself and allows the butterfly to have the impact it has. It is the weather, which assigns the status of a cause to the butterfly. In turn, the butterfly needs the "unintended", coincidental co-operation of the weather in order to make an "unintended" difference. The situation looks much more symmetrical, and therefore much less surprising, from this perspective: both the weather and the butterfly are "causes" because the outcome, the hurricane, needed both. The assumption of a directed, asymmetrical causality, which runs from the butterfly to the weather, is not, then, an inherent quality of the situation but only a traditional and problematic scheme employed by an observer. In other words, causality is always added to a situation by processes of attribution.<sup>62</sup>

By the time general systems theory began to thematise self-reference as a general organisational principle, Niklas Luhmann had already arrived at the conclusion that self-reference had to become a cornerstone in work; for various reasons, it had to assume a central position in a theory of social systems. But Luhmann's theory, in the mid 70s, was still to be written. Clearly, Luhmann had from very early on kept the title "systems theory" for his venture but so far his theoretical work consisted of a variety of articles dispersed in various journals. Some of his papers were collected in the series Soziologische Aufklärung; however, the unity of the work was not accessible in one single theoretical volume. In fact, Luhmann had held the title "systems theory" only on credit. His work in its formative years was very much an attempt of a hypothetical self-interpretation; it was guided by the expectation that, sooner or later, his major concerns could be expressed in a sound theoretical context, which would deserve the label "theory". In 1966, Luhmann presented his work as a "preparation" for a more fundamental theory of the reduction of complexity.<sup>63</sup> One year later, he claims for the first time that his work "outlines" [skizziert] a systems theory, only in order to confess, in 1968, that the "philosophical meaning" of the premises of his work remained "obscure" [dunkel].<sup>64</sup> In the preface to the first volume of Soziologische Aufklärung, written in December 1969, Luhmann explained that his theoretical papers were nothing but provisional drafts and, therefore, had been published "only" as articles. When challenged by Habermas, he repeated that so far he had made proposals which even he,

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<sup>62</sup> See the general remarks in *Die Voraussetzung der Kausalität*, in Niklas Luhmann, Karl Eberhard Schorr (eds.), Zwischen Technologie und Selbstreferenz -- Fragen an die Pädagogik, (Frankfurt a.M.: Suhrkamp, 1982), pp.41-50; causality is presented as a "kind of organization of self-reference" in the introduction, "Paradigmawechsel in der Systemtheorie", to Soziale Systeme, p.26.

<sup>63</sup> See his remarks in *Reflexive Mechanismen*, pp.101-103.

<sup>64</sup> See *Soziologie als Theorie sozialer Systeme*, p.128; for the comment on obscurity Zweckbegriff und Systemrationalität, p.349.

Luhmann, had not yet been able to think through to their end.<sup>65</sup> And again, in the preface for the second edition (March 1972) of Soziologische Aufklärung 1, he justified the "beforehand publication of partial results out of larger working contexts" only by referring to the interest his book had provoked in the heyday of the debate with Habermas. As there was a demand to which he had to respond, he decided "not to hold back any publication until more extensive and systematically matured and developed pieces of work can be presented".<sup>66</sup>

In the second half of the 1970s, Luhmann intensified his efforts to put together the dispersed pieces of his work, to make concepts more compatible and to clarify them in this process. The major result of these efforts, visible at the latest in 78, fully developed in 84, was the introduction of the concept of autopoiesis into the network of concepts Luhmann had established by then. In particular, Luhmann followed the general trend of systems theory at the time and proclaimed self-reference as the basic organisational principle of living, psychic and social systems. The latter are strictly distinguished according to whether they used life, consciousness, or communication as modes of autopoietic reproduction respectively. In addition to this threefold distinction, psychic and social systems differed from living systems in that they were able to internally represent the complexity of the world as meaning [Sinn].<sup>67</sup> Systems were defined, then, as autopoietic systems; by placing self-reference in the very centre of *any* system, Luhmann finally arrived at a general concept of "system" which did not require references to the disputed and worn-out concept of "structure".<sup>68</sup>

As mentioned above, everything an autopoietic system uses as an entity, anything it treats as undecomposable is being produced by the system itself. In Luhmann's adaptation of "autopoiesis", this activity of producing "unity" is to be understood as a continuously reproduced refusal to further problematise or decompose the entities serving as elements or, in general, as unities. In other words, the "production" of unity corresponds to the taking for granted of the unity in question. For example, the Economics department at Kent University uses mathematical models as basic elements of its reproduction. Each model invites the production of further models, which are elaborations, deviations, clarifications, and confusions of previous models. The autopoiesis of the system consists precisely in the ongoing and unquestioned assignment of the status of an element to those elements. Of course, one could, if one wanted, "deconstruct" the unity of those elements and find that it is a conglomerate of assumptions about epistemology, life, the world, the universe, and everything, but the system, as long as it operates, takes and must take all this for granted. To be sure, taking such "elements" for granted always entails a risk -- the risk, for example, to be considered naive -- but only by accepting that risk is the system able to build up

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<sup>65</sup> Systemtheoretische Argumentationen, p.315.

<sup>66</sup> Soziologische Aufklärung 1, Vorwort (1969), p.5, Vorwort (1972), p.6.

<sup>67</sup> The general reference for the design is, of course, what is considered Luhmann's main work, Soziale Systeme -- Grundriß einer allgemeinen Theorie, (Frankfurt: Suhrkamp, 1984). For a brilliant summary see his article The Autopoiesis of Social Systems, in Felix Geyer, Johannes van der Zouwen (eds.), Sociocybernetic Paradoxes: Observation, Control and Evolution of Self-Steering Systems, pp.172-192.

<sup>68</sup> There is a chapter on Structure and Time in Soziale Systeme, but it begins conspicuously with the observation that it is only the eighth chapter and that, in fact, systems theory does not have to fall back upon the term "structure" for its self-description. See Soziale Systeme, (Frankfurt a.M.: Suhrkamp, 4th ed. 1991), p.377.

complexity and to transform unlikelihood into likelihood. As a result the models of the economists today are so sophisticated that even mathematicians sometimes wonder what they are about. In general, deconstruction either destroys a system or forces it to construct new inviolate levels, i.e. new elements. But even in the case of destruction, the function it fulfilled may require a functionally equivalent replacement. In this way, any deconstruction is at the same time a construction or, in other words, deconstruction and construction are, in some sense, functionally equivalent.

### 3.1. Social systems, psychic systems, and meaning

Before I will turn to the consequences of Luhmann's decision to adopt "autopoiesis", I need to review some of his earlier theoretical choices. The distinction between social and psychic (earlier: personal) systems and the corresponding location of psychic systems in the *environment* of social systems are probably as old as Luhmann's project. This design was explicitly introduced at the latest in 1964 and then kept throughout the years.<sup>69</sup> It collided with the notion of "intersubjectivity", which Luhmann had at first used uncritically in lack of alternatives.<sup>70</sup> The problematic of the term surfaced during the Habermas-Luhmann-debate: the "inter" and the "subject" did not go as easily together as "intersubjectivity" might have suggested.<sup>71</sup> Luhmann finally abandoned the concept in the late 1970s indicating that the idea of "reflection" and its related problems could not be properly formulated in terms of intersubjectivity.<sup>72</sup> The problem to which intersubjectivity was an inadequate answer was solved, then, by the autopoietic autonomy of social (communicative) systems.<sup>73</sup> This step, in turn, was prepared by a shift from action to communication as the basic mode of social autopoiesis. The relationship between action and communication had remained a source of confusion until about 1978, when action was presented as socially constituted and not as constitutive of the social.<sup>74</sup> The move towards communication was made explicit in 1981 and, with a footnote giving credit to Habermas for this shift, in 1982.<sup>75</sup> The term "action" now found its place in the context of the self-descriptions and self-simplifications of social systems.<sup>76</sup>

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<sup>69</sup> See Funktionen und Folgen formaler Organisation, pp.24-26.

<sup>70</sup> Even in the inaugural lecture the term did not seem to have caused any problems. See Soziologische Aufklärung, e.g. pp.74,78.

<sup>71</sup> Sinn als Grundbegriff der Soziologie, pp.51-52 (especially footnote 25).

<sup>72</sup> Identitätsgebrauch in selbst-substitutiven Ordnungen (1979), p.219.

<sup>73</sup> For a retrospective interpretation of his theoretical decision, see Intersubjektivität oder Kommunikation: Unterschiedliche Ausgangspunkte soziologischer Theoriebildung, in Archivio di Filosofia, Vol.54 (1986), pp.41-60.

<sup>74</sup> Handlungstheorie und Systemtheorie, pp.57-58, suggests that actions are constituted by processes of attribution, but still considers actions as the elements of social systems. But see also the remarks in Macht, p.5, where Luhmann suggests that only communication could constitute social systems.

<sup>75</sup> See Vorbemerkungen zu einer Theorie sozialer Systeme, in Soziologische Aufklärung 3, (Opladen: Westdeutscher Verlag, 1981), pp.11-24 (15-17); and for 1982 see Autopoiesis, Handlung und kommunikative Verständigung, in Zeitschrift für Soziologie, Vol.11, No.4 (4 October 1982), pp.366-379 (372).

<sup>76</sup> See in addition to Autopoiesis, Handlung und kommunikative Verständigung, the relevant chapter Kommunikation und Handlung in Soziale Systeme, pp.191-241.

Another crucial pillar of the entire manoeuvre is the concept of “meaning”. Because “meaning” was at the centre of the exchange with Habermas, Luhmann did not have much choice but to concentrate his theoretical work on a clarification of the meaning of meaning, so that the concept was fully developed already in 1971.<sup>77</sup> As a common achievement of their co-evolution, psychic and social systems employed meaning as a mode of representing complexity. Meaning supplied the actual state of the system with redundant possibilities of further experience and action so that actuality always appeared as surrounded by possibilities. The function of meaning was, in other words, to identify all operations of the system as selections and, at the same time, to preserve the system from shrinking down to its one and only *actual* state. Meaning mediated between “actuality which is certain but unstable, and potentiality which is uncertain but stable”.<sup>78</sup> According to Luhmann, the references to other possibilities as an inherent aspect of actuality could not be suppressed.<sup>79</sup> A rudimentary version of this concept of meaning was present already in 67 but was at that time still explicitly needed for the definition of a system as a meaning context of actions [Sinnzusammenhang von Handlungen].<sup>80</sup>

Meaning occupied a strategic position in Luhmann's theory design for at least three reasons. First, as it marked the segregation of psychic and social systems on the one hand from living systems on the other, it helped to distance the theory from allusions to the problematic metaphor of the organism.<sup>81</sup> Second, because meaning was the way systems handled selectivity enforced by complexity and, in other words, because complexity and meaning were different expressions of the same fundamental problem of order, linking the two contributed “to an elimination of the technological bias of systems theory”.<sup>82</sup> Finally and most important, as systems now operated in accordance with their meaning world (rather than with the world), the assumption of an all-encompassing system, which comprises, among other things, social and psychic systems, had become unnecessary.<sup>83</sup> Luhmann gave Parsons the credit for having been the last one to think of the relations between the psychic and the social as *intra*-systemic relations.<sup>84</sup>

### 3.2. Why “autopoiesis”?

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<sup>77</sup> See Sinn als Grundbegriff der Soziologie. An English translation of the text was published in Essays on Self-Reference in 1990. It is telling that Luhmann apparently did not see any problem in re-publishing a text which was almost 20 years old.

<sup>78</sup> Complexity and Meaning, pp.99-104 (102).

<sup>79</sup> Macht, p.56.

<sup>80</sup> Soziologie als Theorie sozialer Systeme, pp.115-116.

<sup>81</sup> See Sinn als Grundbegriff, p.92.

<sup>82</sup> Insistence on Systems Theory: Perspectives from Germany -- An Essay, revised version of a paper presented at the 1981 meeting of the American Sociological Association, published in Social Forces, Vol.61, No.4 (June 1983), pp.987-998 (994).

<sup>83</sup> See Wie ist soziale Ordnung möglich?, in Gesellschaftsstruktur und Semantik 2, (Frankfurt a.M.: Suhrkamp, 1981), pp.195-285 (279-282); see also Niklas Luhmann, Wie ist Bewußtsein an Kommunikation beteiligt?, in Hans Ulrich Gumbrecht, Karl Ludwig Pfeiffer (eds.), Materialität der Kommunikation, (Frankfurt a.M.: Suhrkamp stw, 1988), pp.884-905 (895).

<sup>84</sup> Interpenetration -- Zum Verhältnis personaler und sozialer Systeme, in Soziologische Aufklärung 3, (Opladen: Westdeutscher Verlag, 1981), pp.151-169 (154); first published in the Zeitschrift für Soziologie, Vol.6 (1977), pp.62-76.

By inserting the concept of autopoiesis into the centre of his work, Luhmann felt close to achieving what he had set out to achieve: (1) he successfully established a link between observation and self-observation, (2) he created a theoretical context which, in its design, represented a universal problematisation of “identity” and (3) was thereby able to find an exit from the philosophy of the subject.

The link between observation and self-observation was implicit in the theory’s self-understanding as a self-referential system. In some sense, self-reference was precisely what the theory shared with what it observed. As a system-in-an-environment and as a system-with-history, the theory was a system of the type it theorised about.<sup>85</sup> It exemplified its own contents. The self-referential theory saw reality in terms of self-reference.<sup>86</sup> From its observations, it always learned something about itself and thereby became increasingly precise: as it observed practices, structures, problems, solutions, systems, programs always with a view towards itself, the theory would accumulate statements as to whether it was or was not a practice, structure, problem, solution, system, program. The theory’s self-reference was not, then, a tautology. On the contrary, self-reference was the guarantee that the theory was able to extract guidance from its environment; it guaranteed that the theory was a growing texture of analytical tools, which were rendered precise in relation to each other.<sup>87</sup> Ultimately, the fruit of self-observation – always implicit in the theory’s observations -- should be that the theory develops its own epistemology as an (empirical!) *result* instead of an a priori rule, which somehow fixes how science must work.<sup>88</sup> For if scientific research was a system, then research on systems would reveal something about research itself.<sup>89</sup>

In order to see how the insertion of autopoiesis anchors the universal problematisation of identity in the theory’s foundations, it is important to remember that, for the system, self-reference is a mode of contact with the environment. If the environment did not matter at all to the system so that it did not even feel bound by its own history, it would lose all orientation and would not dispose of any selective principle that could somehow help selecting the system’s next state. In other words, self-reference without environment is a paralysing tautology.<sup>90</sup> Whatever move the system makes, it is either an internally generated response to an internally identified environmental irritation or a response to the system’s history, which is, after all, made up of meaning sediments left behind by those irritations. In other words, autopoiesis implies a need for causes which, for the system, appear as not being produced by the system; it implies a need for the *externalisation of self-reference*; it implies a need for an uninterrupted interruption of circularity; it implies the necessity of an environment.<sup>91</sup> However, *how* a system externalises its self-reference, *how* it picks up and

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<sup>85</sup> Vorbemerkungen zu einer Theorie sozialer Systeme, p.21.

<sup>86</sup> Insistence on Systems Theory, p.995.

<sup>87</sup> Vorwort, in Soziale Systeme, pp.9-10.

<sup>88</sup> The Theory of Social Systems and Its Epistemology: Reply to Danilo Zolo’s Critical Comments, in Philosophy of the Social Sciences, Vol.16 (1986), pp.129-134 (130).

<sup>89</sup> Neuere Entwicklungen in der Systemtheorie, pp.296-297.

<sup>90</sup> Soziale Systeme, p.31.

<sup>91</sup> See e.g. Selbstreferenz und Teleologie in gesellschaftstheoretischer Perspektive, in Gesellschaftsstruktur und Semantik 2, (Frankfurt a.M.: Suhrkamp, 1981), pp.9-44 (26); The Autopoiesis of Social Systems, p.184; Neue

translates irritations into its meaning world, i.e. *how* it transforms noise into order cannot be theoretically deduced. In fact, after the universalisation of self-reference, the externalisation of self-reference now becomes the universal reference point for functional analysis.<sup>92</sup> Thus, to inscribe self-reference as an internal feature into all living, psychic, social systems is to avoid any *a priori* theoretical assumptions as to what systems do or do not.<sup>93</sup> And the question of how systems come to do what they do (and nothing else) in spite of the paralysing arbitrariness of their self-reference now is the decisive *empirical* question. The major theoretical statement of the theory is, then, a two-fold methodological prescription: first, everything has to be explained, and second, everything has to be explained as a construction *relative to a system*.<sup>94</sup> Already in its architecture, Luhmann's theory of autopoiesis bars any way back to the idea of nature as being prior to cognizance, or to an anthropological conception of man, to humanism.<sup>95</sup> The strict distinction between psychic and social systems, too, serves this purpose.<sup>96</sup>

According to Luhmann, medieval scholastic debate identified the individual itself as the source of its individuality. In this tradition, all kinds of individual beings, not only humans, were defined by self-reference. In the traditional connotations of hypokeimenon/subiectum -- something "lying under" and supporting attributes -- the concept of the subject referred to something that underlay and carried the world and, therefore, to something that existed in its own right as a transcendental and not as an empirical phenomenon.<sup>97</sup> In its attack against the scholastic tradition, the 17<sup>th</sup> century replaced the unitary world with a duality -- *res cogitans/res extensa* -- of subjects and objects, thereby opening the world of objects for empirical scrutiny. The only certainty that Descartes considered immune from scepticism lay in the factual operation of consciousness, which, independently of whether its contents was true or false, at least knew the facticity of its own operation. Self-reference now counted as a privilege of consciousness, which could self-referentially control and check its operation; yes, it could even acknowledge that it had been wrong and still continue to exist.<sup>98</sup> After Kant, the human individual (not only: the Cartesian mind) emerged as subject

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Entwicklungen in der Systemtheorie, p.295; Das Moderne der modernen Gesellschaft, in Beobachtungen der Moderne, pp.11-49 (33).

<sup>92</sup> See e.g. Vorwort, in Soziologische Aufklärung 5, p.10. Later statements which present the de-paradoxation of paradoxes as the ultimate reference point for functional analysis are just new versions of the proclaimed necessity of the externalisation of self-reference. See Sthenographie, in Niklas Luhmann et al., Beobachter -- Konvergenz der Erkenntnistheorien?, (München: Fink, 2nd ed. 1992 (first 1990)), pp.119-137 (129).

<sup>93</sup> Die Wissenschaft der Gesellschaft, p.538.

<sup>94</sup> Die Richtigkeit soziologischer Theorie, pp.44-45.

<sup>95</sup> On the denial of an anthropological conception of man, see e.g. The Individuality of the Individual: Historical Meanings and Contemporary Problems, in Thomas C. Heller, Morton Sosna, David E. Wellbery (eds.), Reconstructing Individualism -- Autonomy, Individuality, and the Self in Western Thought, (Stanford, CA: Stanford University Press, 1986), pp.313-325 (322); for related remarks along the same line also Die Soziologie und der Mensch, in Neue Sammlung, Vol.25 (1985), pp.33-41; Autopoiesis als soziologischer Begriff, in Hans Haferkamp, Michael Schmid (eds.), Sinn, Kommunikation und soziale Differenzierung -- Beiträge zu Luhmanns Theorie sozialer Systeme, (Frankfurt a.M.: Suhrkamp stw, 1987), pp.307-324 (309); also the remarks in Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, in Soziologische Aufklärung 5: Konstruktivistische Perspektiven, (Opladen: Westdeutscher Verlag, 1990), pp.31-58 (53-54).

<sup>96</sup> Sthenographie, p.132.

<sup>97</sup> The Individuality of the Individual, p.315.

<sup>98</sup> Wie ist soziale Ordnung möglich?, p.235; Die Richtigkeit soziologischer Theorie, p.44.

of the world; a new kind of subjective individualism became possible: “experiencing the world, the individual could claim to have a transcendental source of certainty within himself. He could set out to realise himself by realising the world within himself. [...] The individual leaves the world in order to look at it.”<sup>99</sup> Thus, this path of thinking kept reproducing the transcendental status of self-reference; self-reference, in other words, was being denied the status of being empirical.<sup>100</sup> Luhmann's theory of autopoiesis exits from this path precisely at this point. Two of its major theoretical claims are that, first, self-referential systems are empirical, i.e. that they have no transcendental status whatsoever, and second, that self-reference is an internal feature of all living, psychic, and social systems and not a privilege of a specific kind of system. Systems theory dissolves the distinction between subjects and objects not by abandoning the concept of self-reference, but by generalising it.<sup>101</sup> For Luhmann, the dissolution of this distinction requires a new form of distance between sociology and society. Since it was only the taking-for-granted of the difference between subjects and objects that enabled the subjects to (de)value their objects without affecting themselves, the end of that difference marks the end of “critical” sociology. In fact, the very idea of “critique” needed to be reconsidered.<sup>102</sup>

In the mid 1970s Luhmann expressed for the first time a cautious optimism that the program of sociological enlightenment could be translated into a general theory. This was precisely the time when he realised that the principle of self-reference had to play a central role in the architecture of a theory of social systems. But he was as yet searching for the appropriate language in which to formulate the new theory. He complained that classical, linear and sequential means of presentation like books could not adequately express the theory's design.<sup>103</sup> In 1978, the ideas of autopoiesis are implicitly present in Luhmann's work: elements do not occur as given bricks which the system simply has to put together, but as artefacts of the very system which consists of those elements. Since labelled theories, as he observed, were accepted more easily -- the label gives the impression of unity and closure -- Luhmann, in the late 70s, was looking for a label for a theory based on the circular relationship between system and elements.<sup>104</sup> In a lecture held before the Deutsche Akademie für Sprache und Dichtung, Luhmann for the first time presents a structure for a book on social systems. It consisted of a graph which connects 12 different concepts via arrows; meaning and self-reference were the concepts with the highest number of incoming and outgoing arrows. However, the highly non-linear graph was presented as the reason why the book had not yet been written.<sup>105</sup>

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<sup>99</sup> The individuality of the Individual, pp.317,319.

<sup>100</sup> Even in sociology: "It is unpardonable: sociology did not see an entire world," in *Individuum und Gesellschaft*, Universitas, Vol.39 (1984), pp.1-11 (8).

<sup>101</sup> See already *Vorbemerkungen zu einer Theorie sozialer Systeme*, p.19; also *Die Wissenschaft der Gesellschaft*, p.360.

<sup>102</sup> Niklas Luhmann, *Am Ende der kritischen Soziologie*, in *Zeitschrift für Soziologie*, Vol.20, No.2 (April 1991), pp.147-152.

<sup>103</sup> *Systemtheorie, Evolutionstheorie und Kommunikationstheorie*, p.202.

<sup>104</sup> *Handlungstheorie und Systemtheorie*, p.50.

<sup>105</sup> *Unverständliche Wissenschaft -- Probleme einer theorieeigenen Sprache*, in *Soziologische Aufklärung 3*, pp.170-177 (174,177), lecture held before the German Academy for Language and Poetry, first published in 1979.

The second half of the 70s marked also the period when theories of self-reference explicitly occurred as the fourth pillar of the project in addition to systems theory, theories of evolution and communication theory.<sup>106</sup> After Parsons' death in 1979, Luhmann concluded that self-reference and complexity were precisely the concepts which Parsons' design was unable to incorporate.<sup>107</sup> But the late 70s, early 80s also showed signs of impatience. Introducing the English translation of a collection of his articles, he presented "the highly abstract language" as "only a hint of what would really be required".<sup>108</sup> And in the preface to the third volume of *Soziologische Aufklärung* (1981), he ironically presented his lecture "Unverständliche Wissenschaft", which dealt with the problems of formulating a general theory, as a provisional substitute for such a theory.<sup>109</sup> However, to this collection of articles written during the previous years he added a crucial text, entitled "Preliminary Remarks on a Theory of Social Systems", which was originally prepared for that volume.

The word "autopoiesis" surfaced in Luhmann's writings for the first time in 1982. He justified the idea behind the label by stating that there were no absolute limits to modern science's capacity to "dissolve" inviolate levels. In a world which appeared, in this sense, as groundless [bodenlos], "elements" were being constituted by a refusal to dissolve them. They were, then, created by the system which is constituted by them. The same article announced a "major publication on this topic".<sup>110</sup>

The book *Soziale Systeme* itself was probably finished by December 1983, the date of the preface. Its modest subtitle -- *Outlines* [Grundriß] of a General Theory -- indicated the author's hesitations. Whereas contents and the final version of the concepts did not pose any problems in the process of writing, Luhmann spent a lot of time arranging the concepts in some kind of sequential order.<sup>111</sup> The decision to put an introductory section on a "paradigm shift" in general systems theory at the beginning of the book was taken very late; it was finally taken because, at that time, general systems theory was already well introduced, i.e. for strategic reasons.<sup>112</sup> The preface presented the theory as a "labyrinth" rather than "as a highway to a happy end".<sup>113</sup> Most of the 660 pages of the book were written during a sabbatical year funded by the Deutsche Forschungsgemeinschaft (DFG). One year after the publication of the book, Luhmann referred to it as his "first proper publication" and, again, described his previous works as "Nullserie" in his production of theory; future works would be located at a lower level of abstraction.<sup>114</sup>

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<sup>106</sup> In addition to *Unverständliche Wissenschaft*, p.174, see also *Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften*, p.198.

<sup>107</sup> Niklas Luhmann, Talcott Parsons -- Zur Zukunft eines Theorieprogramms, in *Zeitschrift für Soziologie*, Vol.9, No.1 (January 1980), pp.5-17.

<sup>108</sup> See Author's Preface, in Niklas Luhmann, *The Differentiation of Society*, (New York: Columbia University Press, 1982), pp.ix-xii, written in May 1980.

<sup>109</sup> Vorwort, in *Soziologische Aufklärung* 3, pp.5-7 (7), written in February 1981.

<sup>110</sup> Autopoiesis, *Handlung und kommunikative Verständigung*, pp.367-368, 376.

<sup>111</sup> See Vorwort, in *Soziale Systeme*, p.14.

<sup>112</sup> "Biographie, Attitüden, Zettelkasten", p.145; Stellungnahme, in Werner Krawietz, Michael Welker (eds.), *Kritik der Theorie sozialer Systeme -- Auseinandersetzung mit Luhmanns Hauptwerk*, (Frankfurt a.M.: Suhrkamp stw, 1992), pp.371-386 (377-378).

<sup>113</sup> Vorwort, *Soziale Systeme*, p.14.

<sup>114</sup> "Biographie, Attitüden, Zettelkasten", pp.142,145,155.

Why did Niklas Luhmann adopt the term "autopoiesis"? At first sight, this decision seems rather unlikely. After all, he had suffered from his earlier choices of key concepts. When he spoke about "functions", he was considered a Parsonian; when spoke about "systems", he was automatically accused of not being able to explain social change. The decision of the late 60s to speak of "complexity" and its "reduction" was a conscious attempt to avoid the worn-out concept of "contingency".<sup>115</sup> Much of Luhmann's writings are propelled by a need to run away from the wrong discussions. The decision to incorporate the label "autopoiesis" must have been all the more difficult -- especially since the ongoing debate in systems theory was far from settled. Autopoiesis could have turned (and still can turn) out as a temporary fashion. Moreover, the original idea to transfer the concept to the social sciences was not Luhmann's. Already in the late 70s, very early 80s, the issue was debated on conferences -- with Maturana, but as yet without Luhmann.<sup>116</sup> The publication of Soziale Systeme came at a time when the interest in this debate began to decrease.

What all this suggests is, of course, that Niklas Luhmann made this commitment to the label "autopoiesis" very much out of the internal dynamics of his project. The adoption of the term can be justified only by the "perfect fit" hypothesis: autopoiesis only labelled what had been -- implicitly and perhaps even explicitly from the outset -- at the centre of Luhmann's concerns. The concept helped him to organise, summarise, bundle, radicalise, and sell all his previous writings *as a unity*. In Soziale Systeme, Luhmann referred to all the various periods of his work -- not in order to establish a distance, but in order to present previous works as valid explications of the topics now dealt with in the new book. The book was not the final answer to the problems he had been addressing but it provided a coherent theoretical context which reflected his specific way of posing questions. And he was able to integrate the notion of autopoiesis precisely because his conceptual framework had always been geared towards "self-reference". In the new trends of general systems theory, he could "feel confirmed in [his] theoretical tendencies";<sup>117</sup> in fact, in the group of scientists promoting the shift towards concepts of self-reference, he even found company.<sup>118</sup> Considering the internal dynamics of his project as it had evolved by the early 1980s, the widely held view that the introduction of the concept of autopoiesis marked a decisive discontinuity in Luhmann's oeuvre, i.e. that we

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<sup>115</sup> Die Praxis der Theorie, p.264.

<sup>116</sup> In the Federal Republic of Germany, Maturana's ideas were first taken up by an interdisciplinary working group (with Peter M. Hejl, Wolfram K. Köck, G. Roth) at the Forschungs- und Entwicklungszentrum für objektivierte Lehr- und Lernverfahren GmbH. The distribution of a German version of Maturana's Biology of Cognition in 1975 aroused some interest on the part of various other disciplines, and in 1977 the University of Bremen offered the institutional and financial support for a first exploratory symposium on the new model. Conference presentations were published in 1978 as P.M. Hejl, W. K. Köck, G. Roth (eds.), Wahrnehmung und Kommunikation, (Frankfurt a.M.: Lang, 1978). As interest in the theory grew, a second symposium in 1979 was split: the biological aspects of self-organisation were discussed in Bremen, the problems of the social sciences in Paderborn. Conference papers of the latter meeting were published in 1980 as Frank Benseler, Peter M. Hejl, Wolfram K. Köck (eds.), Autopoiesis, Communication, and Society – The Theory of Autopoietic Systems in the Social Sciences, (Frankfurt a.M.: Campus, 1980). In his contribution to the volume of 1980, Frank Benseler already refers to "points of contact" between Luhmann and Maturana. See his "On the History of Systems Thinking in Sociology", *ibid.*, pp.33-43 (38).

<sup>117</sup> The Theory of social Systems and its Epistemology: Reply to Danilo Zolo, p.129.

<sup>118</sup> Later, Luhmann even considers the close cooperation and personal acquaintance among Gotthard Günther, Humberto Maturana, Heinz von Foerster, Joseph Glanville, and Luhmann himself to be "interesting in the context of the sociology of science". Apparently this group of researchers is mainly organized by von Foerster. See footnote 7 in *Am Ende der kritischen Soziologie*, p.149.

have to strictly distinguish between a "pre-autopoietic" and an "autopoietic Luhmann" is unjustified.

Luhmann continued to point out that the idea of social autopoiesis remained highly disputed; and he referred to his book as being only the beginning of sociology's serious participation in this dispute.<sup>119</sup> Already in 1984, Luhmann wondered whether the complexity and the high level of abstraction drastically reduced the theory's capacity for circulation. Theories of adequate complexity may "turn out to be unsaleable". In fact, "we cannot even be sure that 'theory' will be and will remain the right designation of [societal] self-descriptions".<sup>120</sup> The preface of the fourth volume of *Soziologische Aufklärung* attested a further need for systematic elaboration, especially related to a theory of society.<sup>121</sup> Responding to the emerging secondary literature in the second half of the 80s and early 90s, Luhmann found it "too early" to pass a final judgement on his proposal, and indicated that -- "more than its publication can express" -- the proposal was "tormented" [plagen] by doubts, uncertainties and an awareness of gaps and deficiencies. He explained that the change proposed by his book should not be understood as a "revolution". The evolution of his own thinking as well as the debate on self-referential theories had shown that the thinking through of the consequences of the principle of self-reference required a lot of time.<sup>122</sup> A publication on the issue could not represent, therefore, a final report or a state of perfection.<sup>123</sup> There were also beginning doubts as to whether the introduction of the label "autopoiesis" by Maturana had indeed fulfilled its purpose, i.e. whether it had helped to stabilise a body of ideas and concepts against everyday language.<sup>124</sup>

### 3.3. Re-entries

An observation is the unity of a distinction and a denotation. It is a distinction in that it must distinguish what it observes from everything else, and it executes this distinction by denoting one of the distinct sides as "this" or "that". But the observation of autopoiesis always encounters a paradox because the two sides of the distinction are being bent onto each other by the symmetrical, circular object of the observation. Of course, autopoiesis does not stop in the face of logical contradictions.<sup>125</sup> Thus, paradoxes are problems, if at all, only for the *observation* – not for the *operation* -- of self-referential systems. For the observation, the encountered paradox questions the distinction it employs and thereby transforms the observation's hetero-reference into a self-reference. This self-reference is then externalised precisely by hypostatizing the necessity of externalisations. For it then becomes observable how the autopoietic system, on the basis of its ongoing self-referential

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<sup>119</sup> Systeme verstehen Systeme, p.91, footnote 33.

<sup>120</sup> The Self-Description of Society: Crisis Fashion and Sociological Theory, in *International Journal of Comparative Sociology*, Vol.25, No.1-2 (1984), pp.59-72 (65,68).

<sup>121</sup> Vorwort, in *Soziologische Aufklärung 4 -- Beiträge zur funktionalen Differenzierung der Gesellschaft*, (Opladen: Westdeutscher Verlag, 1987), pp.5-7 (7).

<sup>122</sup> Autopoiesis als soziologischer Begriff, pp.307-308.

<sup>123</sup> Stellungnahme, p.386.

<sup>124</sup> See the remarks in *Die Wissenschaft der Gesellschaft*, pp.388 (footnote 43),652.

<sup>125</sup> See e.g. Die Autopoiesis des Bewußtseins, in *Soziale Welt*, Vol.36 (1985), pp.402-446 (405,414); The Autopoiesis of Social Systems, pp.179-180.

reproduction, picks up irritations from its environment and integrates them into its meaning world, i.e. it becomes observable how the system narrows its choices by taking for granted what it takes for granted. In particular, the observation can see, then, that the system cannot see what it cannot see. The insight into the necessity of invisibilisations is itself the necessary invisibilisation of the observation of observations.<sup>126</sup>

The situation applies as well in the special case of self-observation, i.e. when the system tries to observe its unity -- with the peculiar difference that now the system has to make visible its own invisibilisations; it has to question what it takes for granted. In the late 70s, Luhmann understood the logical problems involved in this paradox of self-observation as the main reason why a theory of self-referential systems had not been established by then.<sup>127</sup> It is at this point that he drew on the work of George Spencer Brown, from then on a crucial reference for Luhmann's work.<sup>128</sup> Spencer Brown's proto-logic allows the re-entry of a distinction on one of its sides. As an application, it proclaims the possibility that the distinction between system and environment, which the system cannot but take for granted while it operates, re-enters on the side of the system: the system reflects, then, on everything it takes for granted as its environment. In this way, the distinction between system and environment -- which is, after all, the unity of the system -- may become a reference point for the system's operation. In some sense, the procedure of the re-entry doubles the distinction between system and environment in such a way that the double is and is not the same as its original. Spencer Brown's logic represents a calculus for the processing of these kinds of paradoxes.<sup>129</sup>

Since classical logic was an attempt to exclude paradoxes from reasoning, and since science traditionally inferred non-existence from logical undescribability, self-reference and its related paradoxes remained under-exposed themes in scientific inquiries. The 20th century, however, addressed the issue and turned it into *the* philosophical theme of the time. Luhmann suggested to read Nietzsche, Heidegger, Derrida, Wittgenstein, Gödel, Feyerabend and many others as responses to problems of self-reference.<sup>130</sup> In philosophy, paradoxes were not avoided but celebrated. Although this celebration had not always been fruitful, the question remained whether philosophy succeeded in identifying features of modern society which sociology, lacking a proper terminology, had simply overlooked.<sup>131</sup> In this context, the concept of the re-entry filled a crucial gap as it was supposed to lead to a non-arbitrary thematisation of self-reference. Through a re-entry, systems might obtain access to higher degrees of complexity; a representation of the distinction between system and environment within the system at least opened the possibility of a more coherent,

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<sup>126</sup> See e.g. *Intersubjektivität oder Kommunikation*, p.56; very clear also in Niklas Luhmann, *Ökologische Kommunikation: Kann die moderne Gesellschaft sich auf ökologische Gefährdungen einstellen?* (Opladen: Westdeutscher Verlag, 1986), p.59; see also *Tautologie und Paradoxie in den Selbstbeschreibungen der modernen Gesellschaft*, in *Zeitschrift für Soziologie*, Vol.16, No.3 (June 1987), pp.161-174 (172).

<sup>127</sup> Talcott Parsons -- *Zur Zukunft eines Theorieprogramms*, p.13.

<sup>128</sup> George Spencer Brown, *Laws of Form*, (New York: 2nd ed. 1972).

<sup>129</sup> See e.g. *Neuere Entwicklungen in der Systemtheorie*, p.296.

<sup>130</sup> This interpretation of Nietzsche, Heidegger, and Derrida was evidently inspired by Hilary Lawson, *Reflexivity -- The post-modern Predicament*, (London: Hutchinson, 1985). See *Die Richtigkeit soziologischer Theorie*, p.47, footnote 17; explicitly also *Sthenographie*, p.120.

<sup>131</sup> *Die Richtigkeit soziologischer Theorie*, p.46; *Sthenographie*, p.120.

focused and efficient exploitation of irritations picked up from the environment. Because the re-entry could dramatically increase the selectivity of the system, it could process larger sets of potential selections. The re-entry manifested the transformation of a paradox into complexity. Retrospectively, Luhmann noticed that the creative power of paradoxes was one of the themes he neglected in *Soziale Systeme*.<sup>132</sup> An immediate conclusion for theoretical work was, of course, the directive that a theory should preferably be based on distinctions which allow re-entries.<sup>133</sup>

### 3.4. Epistemology

The inclusion of the “explosive self-reference” [Explosivstoff Selbstreferenz] into systems theory must have consequences for epistemology -- this was the insight with which *Soziale Systeme* ended. The final chapter of the book drew attention to the theory’s two major novelties which would have epistemological implications: first, the exclusion of the inclusion of uncontrollable premises, and second, the theory’s re-entry into its own domain.<sup>134</sup> Accordingly, much of Luhmann’s late work is on epistemology. For in that the theory rejected finalities, it had to ask on what stable grounds the program of sociological enlightenment could be anchored.<sup>135</sup> At stake was, in other words, the status of the work in relation to reality. Luhmann’s use of Heinz von Foerster’s second order cybernetics was meant to be an answer to this question. Two concepts are crucial: the concept of the eigenvalue or eigenbehaviour and the principle of second order observations.

A world in which inviolate levels exist only relative to a system provides neither natural endings nor natural objectives for observation. A first question is then whether, at least in principle, the observation of observations of observations of observations of ... may lead to some kind of result, i.e. to a situation of relative stability in which, to some extent, observations are being confirmed by further observations. At a higher level of abstraction, the question is whether the recursive application of an operation to itself converges, and the answer is, of course: sometimes it does. For von Foerster, this insight justifies a definition of cognition as an aimless recursive computation from computations from computations from ... . In the case of convergence, the result is called *eigenvalue* or *eigenbehaviour* of the operation in question.<sup>136</sup> Already in relatively simple situations, the existence -- not to mention the specific form -- of eigenvalues cannot be theoretically deduced; eigenvalues can only be produced: they will or will not be found in a recursive application of operations.<sup>137</sup> The stability of eigenvalues is based, then, only on the recursiveness of the procedure, which has brought them about and, of course, on the fact that they actually *were* (somehow) brought about. The concept does not look for assurances in some kind of correspondence (adaptation!) to an environment.<sup>138</sup> As a consequence of this conceptualisation of cognition,

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<sup>132</sup> Autopoiesis als soziologischer Begriff, p.315.

<sup>133</sup> Die Richtigkeit der Theorie, p.39.

<sup>134</sup> *Soziale Systeme*, pp.647-661; the description of self-reference as an "explosive" is on p.656.

<sup>135</sup> Tautologie und Paradoxie in den Selbstbeschreibungen der modernen Gesellschaft, p.171.

<sup>136</sup> Heinz von Foerster, *Observing Systems*, (Seaside, CA: Intersystems Publications, 2nd ed. 1984).

<sup>137</sup> Die Autopoiesis des Bewußtseins, p.440; Die Richtigkeit der Theorie, p.38.

<sup>138</sup> Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, p.45.

Luhmann suggested to regard the self-reference of a (social) theory, i.e. whether or not it can be directed towards itself, as a necessary precondition for "correctness".<sup>139</sup>

Systems producing their elements, the building up of complexity via re-entries, the procedural establishment of eigenvalues -- all this brings the theory of autopoiesis close to epistemological positions usually categorised as *constructivism*.<sup>140</sup> By accepting this label, Luhmann faced the usual accusations of inviting relativism, solipsism, and arbitrariness. But Luhmann rejected such labels as suitable characterisations of his position. He did not deny that the real world existed, that a real contact with it was possible and necessary as a condition for the real operation of systems. What was being denied was that the world contained something that corresponded to negativity, possibility, distinctions, denotations, uncertainty, selectivity, and to all other modifications of meaning which for the system warranted that it could connect further operations to its operations. Autopoietic systems -- as empirical systems -- operated (really) in a real world but reality was precisely the sphere which remained inaccessible to them; reality was precisely what remained cognitively inaccessible.<sup>141</sup> Cognition was nothing but whatever resulted from a transformation of limitations into conditions of augmentability; and the non-arbitrariness of cognition was due only to the fact that these transformations were being performed systematically, i.e. by a system-with-history and a system-in-an-environment. This perspective indeed represented a radical relativism, but it was a relativism which had lost its opposite concept.<sup>142</sup> Moreover, the acknowledgement of relativity did not amount to an acknowledgement of arbitrariness. On the contrary, to accept relativism was to make inevitable the question of how systems narrowed their choices, how they selected what they selected (and nothing else). Relativity did not lead to an "anything goes" but to processes of self-binding, de-flexibilisation and the establishment of traditions.<sup>143</sup> For whatever systems did, they only did what they did. Arbitrariness did not exist in the real world.

Observations of observations are *observations of second order*. The concept refers to the observation of other observing systems or to self-observation requiring either social or temporal distance respectively. By observing observations, the distinction which the (first) observation can only use but not observe becomes itself observable: one can see what the observing system cannot see and one can see that the observing system cannot see what it cannot see. The second order observation sees as a selection, i.e. as contingent what the first observation must take for granted. In some sense, this insight into such observable unobservabilities, i.e. into the necessity and visibility of *blind spots* replaces the traditional *a priori* justifications of epistemologies. The necessity of blind spots now occupies the place where earlier a conscious self-confirming reasoning had been; systems of recursive observations move to the place where the subject had found self-confirmation in the verification of the *a priori* conditions of cognition and knowledge.<sup>144</sup> Hence, the dictum of

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<sup>139</sup> Die Richtigkeit der Theorie, p.39.

<sup>140</sup> Autopoiesis als soziologischer Begriff, pp.311,314; Neuere Entwicklungen in der Systemtheorie, p.295.

<sup>141</sup> Die Wissenschaft der Gesellschaft, p.306-307; Vorwort, in *Soziologische Aufklärung 5*, p.9; Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, p.41.

<sup>142</sup> Niklas Luhmann, Ökologie des Nichtwissens, in *Beobachtungen der Moderne*, pp.149-220 (170).

<sup>143</sup> Die Wissenschaft der Gesellschaft, p.15; Vorwort, in *Soziologische Aufklärung 5*, p.11.

<sup>144</sup> Die Richtigkeit soziologischer Theorie, p.38; Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, p.49; *Die Wissenschaft der Gesellschaft*, pp.690-691.

second order observation that “I cannot see what I cannot see” plays the same role for Luhmann as the “Cogito Ergo Sum” for Descartes. Just as Descartes found in the “Cogito Ergo Sum” the “rock and clay” that remained after the “loose earth and sand” was cast aside, Luhmann finds the necessity of blind spots “evident beyond deduction and causality”.<sup>145</sup>

The level of second order observation does not mark a “higher” or “privileged” level. As observations, second order observations are bound to the same limitations: they, too, employ and thus do not observe a distinction; they, too, need and create a blind spot.<sup>146</sup> The question is not, then, what the second order observation *gains* as compared to the observed observation. Rather, the question is what eigenvalues -- if at all -- a system generates which directs the recursiveness of its observations towards the observation of what earlier observations were not able to see. For Luhmann, this was a crucial -- through and through *empirical* -- question about modern society.<sup>147</sup>

### 3.5. Modern society

From its beginnings, Luhmann's work on a general theory of social systems was paralleled by theoretical and empirical undertakings aimed at conceptualising the specificity of modern society -- a concern which, according to Luhmann, had been the initial task of sociology when it emerged in the 19th century.<sup>148</sup> Among the results of these efforts is Luhmann's proposal to distinguish three different stages in the evolution of society according to its primary principle of differentiation. First, the principle of *segmentation* means that the subsystems of society presuppose their environment as a set of equal subsystems, so that e.g. tribes only see other tribes in their environment. Second, the principle of *stratification* means that subsystems presuppose their relation to their environment in terms of a rank order of systems. Finally, the principle of *functional differentiation* means that subsystems specialise on specific functions and presuppose that their environment cares for the rest.<sup>149</sup> The evolution of European society is characterised, then, as a transition from segmentary to stratificatory, and then from stratificatory to functional differentiation.<sup>150</sup> According to Luhmann, only modern European society implements functional differentiation as its primary principle of differentiation.<sup>151</sup> The adoption of functional differentiation has several momentous implications: an increase in complexity, a loss of redundancy, an increasing

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<sup>145</sup> The Theory of Social Systems and its Epistemology: A Reply to Danilo Zolo's critical comments, in *Philosophy of the Social Sciences*, Vol.16, pp.129-134 (130-1).

<sup>146</sup> *Die Wissenschaft der Gesellschaft*, p.87.

<sup>147</sup> See Kontingenz als Eigenwert der modernen Gesellschaft, in *Beobachtungen der Moderne*, pp.93-128.

<sup>148</sup> See Author's Preface, in Luhmann, *The Differentiation of Society*, p.ix.

<sup>149</sup> This handy definition is given in *The Self-Description of Society: Crisis Fashion and Sociological Theory*, p.64.

<sup>150</sup> In *Soziologie als Theorie sozialer Systeme*, p.124, Luhmann only introduces two stages: segmentary and functional differentiation. To my knowledge, this is Luhmann's first text (published in 1967) where society's evolution is depicted in these terms. The three-stages-picture is given, at the latest, in *Systemtheorie, Evolutionstheorie und Kommunikationstheorie*, pp.197-198, in 1975.

<sup>151</sup> See *Gesellschaftliche Struktur und semantische Tradition*, in *Gesellschaftsstruktur und Semantik 1*, (Frankfurt a.M.: Suhrkamp, 1980), pp.9-71 on the relation between structure and semantics. The characterisation of modern society as functionally differentiated is on p.27.

interdependence *and* differentiation of subsystems, an increase in visible contingency,<sup>152</sup> the giving-up of the possibility of an unrivalled representation of society within society,<sup>153</sup> a release of further possibilities of negation,<sup>154</sup> the transformation of subsystems into self-substitutive systems,<sup>155</sup> an increasing distance and mutual differentiation of psychic and social systems,<sup>156</sup> etc. Luhmann considers society's move to functional differentiation as irreversible.<sup>157</sup>

When, in the late 70s, Luhmann's social systems ceased to be constituted by "action" and action became socially constituted via attribution, the previously introduced theoretical perspective inspired an empirical research project. The transition from stratificatory to functional differentiation should be displayed also in a transformation of the ways in which actions were communicatively constituted. In other words, structural changes of society should have been prepared and paralleled by changes at the level of semantics.<sup>158</sup> In 1980, Luhmann began to publish studies on "historical-social semantics" which documented the semantic transition to modernity. The studies were collected in a series of books entitled Gesellschaftsstruktur und Semantik; four volumes were published in 1980, 1981, 1989 and 1995 respectively. Studies on the semantics of love, originally planned as a contribution to the series, soon increased in size and then developed into a separate book, Liebe als Passion.<sup>159</sup> Luhmann emphasised that these studies did not presuppose causality at the level of ideas; the picture was not that ideas somehow go directly from culture into the minds and from there into the hands and tongues. Instead, the assumption was that the possibility of being different stimulated activities from which success selected systemisable contents. Accordingly, providing causal explanations was not an objective of these studies.<sup>160</sup>

In agreement with the overall design of his theory, Luhmann linked the characterisation of modern society and the epistemology of second order cybernetics in a cyclical way.<sup>161</sup> For a constructivist epistemology corresponded precisely to the way functional differentiation conditioned the possibilities for societal self-observation. In lack of an Archimedean point, society had to reduce the social impudence of knowledge: it was easier to propose and to follow constructions than to claim and enforce perception as truth. Constructivism marked

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<sup>152</sup> A good discussion, almost a case study, of the consequences of functional differentiation is Ökologische Kommunikation: Kann sich die moderne Gesellschaft auf ökologische Gefährdungen einstellen?. See p.87 on interdependence, p.210 on redundancy, pp.211-212 on contingency.

<sup>153</sup> Tautologie und Paradoxie in den Selbstbeschreibungen der modernen Gesellschaft, p.162.

<sup>154</sup> Niklas Luhmann, Erleben und Handeln, in Soziologische Aufklärung 3, pp.67-80 (76).

<sup>155</sup> Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften, p.209.

<sup>156</sup> On the relation between functional differentiation and increasing demands on individuality see e.g. Interpenetration -- Zum Verhältnis personaler und sozialer Systeme, p.158; Identitätsgebrauch in selbstsubstitutiven Ordnungen, besonders Gesellschaften, p.217. On an increasing "distance" between social and psychic systems see e.g. Liebe als Passion, (Frankfurt a.M.: Suhrkamp, 6th ed. 1992), p.16; Die Autopoiesis des Bewußtseins, p.436.

<sup>157</sup> Ökologie des Nichtwissens, p.181.

<sup>158</sup> The relation between the (new) conceptualization of action and the possibility of empirical research in semantics is made explicit in Handlungstheorie und Systemtheorie, pp.58-59.

<sup>159</sup> Gesellschaftsstruktur und Semantik 1-3, (Frankfurt a.M.: Suhrkamp, 1980,81,89); Liebe als Passion: Zur Codierung von Intimität, (Frankfurt a.M.: Suhrkamp, 1982 (6th ed. 1992)).

<sup>160</sup> See the prefaces of Gesellschaftsstruktur und Semantik 1, p.8, and Gesellschaftsstruktur und Semantik 2, p.8.

<sup>161</sup> See the crucial remarks in Die Wissenschaft der Gesellschaft, pp.616-619.

an endpoint in this development.<sup>162</sup> Polycontextuality, observations of second order, and the recursive distinguishing of distinctions represented the semantic requirements of functional differentiation. An epistemology based on these concepts witnessed and exemplified the adaptation of science to modern society.<sup>163</sup> For science, this implied a transposition from what- to how-questions; for society it led to an emphasis on contingency. What had been “nature” in the past was now being revealed as the consequence of selections, i.e. decisions -- even if the identity of the decision-maker could not always be established.<sup>164</sup> Again, the consequences were observable at the semantic level: the semantics of "danger" was replaced by the semantics of "risks"; the future was no longer an extension of the past but became dependent on decisions.<sup>165</sup> Society responded to these developments in a paradoxical way: with the institutionalisation of freedom.<sup>166</sup>

#### 4. Niklas Luhmann as a mystic

In spite of the various changes that Luhmann’s terminology underwent over some 40 years of continuous work, his central concerns remained remarkably stable. And these central concerns characterise Luhmann as a mystic. We are not the first to characterise Luhmann’s theory as a variant of mysticism.<sup>167</sup> In fact, Luhmann himself compares his work to “Eastern techniques of meditation” and frequently points to his work’s affinity to the teaching of his favourite mystic, Nicholas of Cusa.<sup>168</sup>

We may even go as far as to say that Luhmann's and Cusa's concerns are parallel. One of the main goals of systems theory is to reflect on the necessity of latency, on the inevitability of "blind spots" in all observations.<sup>169</sup> Systems theory is an attempt to incorporate the "blind spot" into sociological theory, to make it visible.<sup>170</sup> This is a paradoxical enterprise and leads to the well-known paradoxes in Luhmann's formulations: "Reality is what we do not perceive [erkennen] when we perceive reality".<sup>171</sup> Luhmann understands "second order cybernetics" as a contemplation of the

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<sup>162</sup> Die Wissenschaft der Gesellschaft, p.634.

<sup>163</sup> See e.g. Vorwort, in Soziologische Aufklärung 4, p.6; Die Wissenschaft der Gesellschaft, p.710; Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, pp.57-58.

<sup>164</sup> See e.g. Das Moderne der modernen Gesellschaft, p.47; Kontingenz als Eigenwert der modernen Gesellschaft, pp.93-128.

<sup>165</sup> See Die Beschreibung der Zukunft, in Beobachtungen der Moderne, pp.129-147; and especially Niklas Luhmann, Soziologie des Risikos, (Berlin, New York: de Gruyter, 1991).

<sup>166</sup> Tautologie und Paradoxie in den Selbstbeschreibungen der modernen Gesellschaft, p.168.

<sup>167</sup> See e.g. Walter Reese-Schäfer, Luhmann zur Einführung, (Hamburg: Junius, 1992), pp.159-160.

<sup>168</sup> For the “Eastern techniques of meditation” see Die Ausdifferenzierung der Religion, in Gesellschaftsstruktur und Semantik 3, pp.259-357 (339); for references to Cusa see e.g. “Ich denke primär historisch” – Religionssoziologische Perspektiven, pp.939,945; Beobachtungen der Moderne, p.107-111; Die Gesellschaft der Gesellschaft, p.58n.

<sup>169</sup> Soziologische Aufklärung, in Soziologische Aufklärung 1, pp.66-91 (68).

<sup>170</sup> Archimedes und Wir, p.30.

<sup>171</sup> Das Erkenntnisprogramm des Konstruktivismus und die unbekannt bleibende Realität, Soziologische Aufklärung 5, pp.31-58 (51).

visibility of "blind spots". The sociologist together with the proponents of second order cybernetics see "that society cannot see that it cannot see what it cannot see".<sup>172</sup>

Similarly, the concern of mystics throughout the last 1500 years was to introduce transcendence into immanence, to make paradoxes visible.<sup>173</sup> Cusa is no exception. In his Visio Dei (1453), Cusa warns us that it is only through a kind of "notseeing" that God can be seen. God is the absolute ground, in which all otherness is unity, and all diversity is identity. God is invisibly visible. He is the *finis sine fine*, the end without end, the *finis infinitus*, the infinite end. Simultaneous contradictory judgements about God's connection with created things are valid.<sup>174</sup> The title, "The Vision of God", entails the same ambiguity as Heinz von Foerster's Observing Systems and Luhmann's Beobachtungen der Moderne.

For Luhmann, everything starts with a distinction. Paradoxes are inevitable once the world, the unmarked space, is "wounded" ["verletzt" -- sometimes Luhmann speaks of a "Einkerbung"] by a distinction.<sup>175</sup> Precisely as in Cusa's design, these paradoxes are obstructing walls that prevent a return to the original perfect unity or oneness.<sup>176</sup> Cusa calls this unity "God". Luhmann finds it difficult to name this unity which preceded the very first distinction. If he refers to it at all, he calls it the "world". "Everything can be conceptualized as a system -- with the exception of the world, which alone has no boundaries".<sup>177</sup> The "world" is no system because it does not have an "exterior" from which it could distinguish itself.<sup>178</sup> The world cannot be observed because any observation introduces a distinction and hence destroys the unity of the world. Nevertheless, the world remains a unity which systems continuously "carry along" [eine stets mitgeführte Einheit].<sup>179</sup>

Luhmann likes to refer to Virgilio Malvezzi's account of the very first distinction which "wounded" the world in his Ritratto del Privato Politico Cristiano (1635). In his attempt to observe God, Lucifer had to draw a distinction and thereby ended up on the other side of the Good. Hence, he had to be evil.<sup>180</sup> Luhmann shows great sympathy for the devil in this case because, in his symbolism, whatever exists, exists only on the basis of a distinction, on the basis of a destruction of the original "pre-cosmic" oneness. In other words, Lucifer had no choice when he became the "devil"! A perfect continuum, like Luhmann's "world", cannot observe itself. If the "world" wanted to observe itself, it

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<sup>172</sup> Sthenographie, in Luhmann et al., Beobachter – Konvergenz der Erkenntnistheorien?, pp.119-137 (134).

<sup>173</sup> P. Fuchs, Von der Beobachtung des Unbeobachtbaren: Ist Mystik ein Fall von Inkommunikabilität?, in Luhmann, Fuchs, Reden und Schweigen, (Frankfurt a.M.: Suhrkamp, 1992), pp.70-100 (73).

<sup>174</sup> Cf. C.L. Miller, Nicholas of Cusa's 'The vision of God', in P.E. Szarmach (ed.), An Introduction to the Medieval Mystics of Europe, (Albany: State University of New York Press, 1984), pp.293-312.

<sup>175</sup> Sthenographie, p.129.

<sup>176</sup> Luhmann, Observing Re-entries, in Graduate Faculty Philosophy Journal 16 (2), pp.485-498 (487).

<sup>177</sup> Luhmann, Funktionen und Folgen formaler Organisation, p.395.

<sup>178</sup> Soziologie als Theorie sozialer Systeme, p.115.

<sup>179</sup> Stellungnahme, in W. Krawietz, M. Welker (eds.), Kritik der Theorie sozialer Systeme – Auseinandersetzung mit Luhmanns Hauptwerk, (Frankfurt a.M.: Suhrkamp, 1992), pp.371-386 (384). See also Die Gesellschaft der Gesellschaft, p.57.

<sup>180</sup> Luhmann, Die Unterscheidung Gottes, Soziologische Aufklärung 4, pp.236-253 (243f), Die Wirtschaft der Gesellschaft, pp.265f, Sthenographie, p.124f.

would have to differentiate out of itself a closed system which could produce a distance to the original "world" and "denote" [bezeichnen] this "world".<sup>181</sup>

It is important to remember at this point how Luhmann justified the adoption of "autopoiesis" in the very first publication in which he used the term.<sup>182</sup> Modern science had the capacity to dissolve inviolate levels and thus proved that the world itself is groundless [bodenlos]. Luhmann's world is like Jakob Boehme's "Ungrund", an undifferentiated, dark nothingness, an "unmarked space". Whatever a system uses as "elementary", as inviolate level, as undecomposable, is exactly this only because the system decides not to continue the process of dissolution, which seems implicit in the world's groundlessness. The "production" of the elements is thus a form of resistance, a warding off, against the fall in the abyss of a groundless world. The ground on which a system finds itself must be self-produced because the world within which all this takes place is groundless. In this sense, the production of the elements manifests a "negation" – a "negation" which gives the elements their positivity. It remains possible, therefore, to problematise the elements from outside the system for it is only the system which does not problematise them; accordingly, the elements are what they are only relative to the very system that they constitute.

Beyond the existence of systems, of distinctions, and of paradoxes there is -- or there was -- an unmarked world. The *actual* world of the systems is a "wounded" world, a negation of the unmarked space. After this first "devil's work" existence is nothing but a processing of distinctions. But the original unity is lost; at least, it cannot be restored through observation because an observation is a distinction and, as such, creates blind spots even if it observes the blind spots of other observations. By implication, conscious systems, as observing systems, are necessarily excluded from everything they observe in the same way as they are excluded "from paradise".<sup>183</sup> "Alienated" from reality, these systems need to build up their own "internal" complexity, their own "meaning world". As such they are totalising systems; a system "cannot avoid operating within a world of its own".<sup>184</sup> In other words, "alienation" from the world forces the systems to create a second reality. Henceforth, the system considers the outside world meaningless to the extent that the latter does not conform to the former's self-created "second reality".

The systems theory works on the basis of the same principle. Its code system/environment defines a world of its own. It defines the operations by which a system (the theory) differentiates itself within the world in order to observe the world.<sup>185</sup> Luhmann's theory, like all communicative systems, does not lead us back to paradise; and yet, the theory is not just one system among other systems. Its function is to contemplate and "remember" the original unity, oneness and homogeneity of the unmarked space. It is the systems theory itself that evokes a consciousness of a pre-Luciferan unity. The theory knows of the inevitability of blind spots but it offers a realm

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<sup>181</sup> Die Wissenschaft der Gesellschaft, p.303.

<sup>182</sup> Autopoiesis, Handlung und kommunikative Verstaendigung.

<sup>183</sup> Neuere Entwicklungen in der Systemtheorie, p.294.

<sup>184</sup> The Autopoiesis of Social Systems, p.179.

<sup>185</sup> Die Wissenschaft der Gesellschaft, p.310.

within which it is possible to move from one “blind spot” to the next, from first to second order observation and back. The crucial insight provided by this movement is that every observation is a self-limitation; and in order to overcome this limitation we have to continue observing, but in different ways. Luhmann’s theory claims to provide the flexibility necessary to avoid a hypostatisation of particular distinctions. In order to achieve this flexibility the theory must allow for “re-entries” because it must return to the observation/distinction it started with and re-problematise its own beginnings.

Within the theory there are no limits of “meaningful problematisation”. Everything that exists becomes visible in its positivity as a negation of other possibilities. The unmarked space of possibilities is remembered – if not preserved – by a semantic space in which it is possible to negate such negations.<sup>186</sup> And as one moves in this semantic space, it becomes obvious that “all structures are based on deception – deception about the true structure of the world”.<sup>187</sup> Clearly, the “true structure of the world” cannot be “restored” or “described” by another axiomatic theory; the description must come in form of a system, a realm of its own, within which deceptions can be continuously revealed as deceptions, and negations can be continuously negated. The infinite unity of the world, of the unmarked space, reappears in the theory in the absence of limits of problematisation. And precisely because the world does not offer resting places that could serve as starting points for meaningful existence – precisely, that is, because the world is groundless – systems *must* produce their own elements.

It is through his theory that Niklas Luhmann contemplates oneness. We noted already earlier that he compared his work to “Eastern techniques of meditation” and this was, as he acknowledged, because they too aimed at an “omission of all distinctions”.<sup>188</sup> Luhmann accepts that his design could still be called “metaphysics”, but claims that, at least, it was not “ontological metaphysics”.<sup>189</sup>

Systems theory is a myth used by the mystic Niklas Luhmann in order to contemplate unity in the equivalence of all distinctions. The meditative practice that his theory expresses has a long history and is part of a longstanding tradition. The literary form of the “system”, for example, was identified by Hans Jonas as one of the characteristic features of the “Gnostic” systems of late Antiquity. Jonas characterised the 2<sup>nd</sup> and 3<sup>rd</sup> centuries as a “hothouse for systems”. The literature on Gnosticism is extensive – and controversial – and all we can do here is to draw attention to some of the suspected affinities and correspondences. In the expert literature, “Gnosticism” usually refers to an anti-cosmic dualism between the cosmos and a pre-cosmic world. The creation of the cosmos was due to an error, a mistake that was not meant to happen. The pre-cosmic world of light was a perfect, homogenous unity and oneness which did not “contain” distinctions. Cosmic history begins with a tragic, “first” distinction, a fall from unity and oneness, which, in a chain of events, ends with the coming-into-being of the cosmos. Human existence is cosmic existence but humans carry within themselves a divine spark,

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<sup>186</sup> Sinn als Grundbegriff der Soziologie, p.85.

<sup>187</sup> Soziologie als Theorie sozialer Systeme, p.120.

<sup>188</sup> Die Ausdifferenzierung der Religion, p.339.

<sup>189</sup> Stellungnahme, p.384.

a spark of the divine light from the pre-cosmic world, and it is this spark that links them to the divine, pre-cosmic oneness. Indeed, humans become the conspirators in the divine plan to overcome the cosmos and to restore the original perfect unity.

The problem is, however, that the humans live in the cosmos and are seduced by its powers. They “forget” that their existence in the cosmos is “alienated existence”. After all, with their divine spark, they do not belong to the cosmos; they are, in a sense, beyond the cosmos. But forgetting, ignorance and lack of knowledge are what chains them to the powers and laws of cosmic existence. They have been seduced to accept the inviolate levels of the world as they find them. They do not understand that they – as members of the world of light – are beyond the manifold distinctions prevailing in the cosmos. Accordingly, it is knowledge – gnosis – that liberates them. The secret saving knowledge of their true origins awakes humans from their state of ignorance, reveals the cosmic inviolate levels as arbitrary, and reminds humans that they have to overcome the cosmos and return to the pre-cosmic oneness. The saving knowledge consists, therefore, of a narrative which explains to the listener “who we were and what we have become, where we were and into what we have been thrown, whither we hasten and from what we are redeemed, what is birth and what is rebirth” (from Theodotus, disciple of Valentinus).

Gnostic myth tells the story of the negation of a negation. The cosmos was a negation; its overcoming will be a second negation. The cosmos is the result of a “wounding” of an original oneness. Once the arbitrariness of this and subsequent distinctions is revealed, the Gnostic understands that the structures of the cosmos are based on deception and ignorance; he can no longer accept its inviolate levels as structures *sui generis*. Still, the myth will then have to explain how these inviolate levels, in spite of their arbitrariness, have somehow come into being. Because it does not accept anything as given, the myth must explain everything. It is therefore presented in the literary form of a system – a “universal” system with an answer to everything. This system has to be self-referential because it includes the moment of salvation. It tells the story of how an unwanted and unintended accident created the cosmos, how the human beings became conspirators in a divine plan to overcome the cosmos, how they were seduced and entered a state of sleep-like ignorance, how they were awakened by the myth, and how they were thereby inspired to return “home”. The myth occurs in its own contents; it not only tells the story of a turning point but it implements it. The myth is both recital and effectuation of salvation – a paradigmatic case of “re-entry”.

“Gnostic” myth could be “implemented” in a variety of ways. Some groups believed that the return to the divine oneness could take place only after death. Accordingly, secret verses were whispered to the dying, which the latter were asked to recite on their ascent after death so that they could finally bypass the cosmic powers. Other groups believed that asceticism was the appropriate way of leaving the cosmos while one was still inhabiting it. Others believed it was possible to approach oneness through meditation and contemplation. There are contacts, therefore, also to Neo-Platonic systems, in which the various gradations of being result from “emanation” proceeding from the One. Furthermore, there are similarities with the Hermetic systems.

We tend to characterise Luhmann as a representative of a contemplative gnosis – and this largely because of his self-understanding. By acknowledging his proximity to Cusa, he locates himself within the Neo-Platonic/Hermetic tradition of mysticism.

## 5. Epilogue

Luhmann's concern with self-reference cannot be considered original. In fact, proclaiming the end of a 2000 year long search for "essence" and "substance" is a gesture which has numerous predecessors in Western philosophy. It appears to be particularly en vogue during and after periods of prolonged ideological conflicts. The revival of stoicism and scepticism in 16<sup>th</sup> and 17<sup>th</sup> century Europe is a good example. For people like Lipsius and Montaigne it was a commonplace that during "a peace more brutal than war" the wise man would think of his own survival first. When people kill in the name of truth it is always better to suspend judgement and remember the contingency of one's own opinion so that no one can take you at your word. In dark times such as these, the only certitude one can rely on is the one you create for yourself. In other words, the ground on which you stand in a groundless world must be your own creation.

We do not have a biography of Niklas Luhmann. As is well known, he considered biographies to be sequences of accidents, which only retrospectively condense into a story with a beginning and an end. Still, he told us about some crucial life experiences in a number of interviews. One of the stories that crops up again and again in these accounts gives an example of an experience of arbitrariness. It would be unfair to read too much into this story if Luhmann had not told it again and again in variety of contexts. In its most telling version, and in our translation, the story reads as follows:

‘Prior to 1945 one had hoped that everything would return to order by itself as soon as the totalitarian regime disappeared. The first that happened to me in American captivity was, however, that my watch was stolen and I was beaten up. Thus, it was not at all as I had thought. And one could soon see that the comparison of political regimes could not be conducted along the axis “good/evil”; instead the political configuration [Figuren] had to be evaluated in their own limited reality. Of course, I do not want to suggest that there was no difference between the Nazi-epoch and the time after 1945. But I was disappointed after 1945. But is this really so important? In any case, the experience of Nazi-rule was not a moral experience for me; rather, it was an experience of arbitrariness, of power, and of the evasive actions of the man in the street.’<sup>190</sup>

In the Habermas/Luhmann (1971) volume we find a brief exposition of Luhmann's understanding of the notion of "experience". But also from other, more occasional references to "experience", it is obvious that he equated "experience" with a "working off" [Abarbeiten] of disappointments. Although Luhmann adopted this understanding of "experience" from Husserl and his phenomenology, experiences like the one mentioned

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<sup>190</sup> Archimedes und Wir, p.129.

above seemed to give substance to this equation of experience with disappointment. Indeed, Luhmann's characteristic experience of the world is arbitrariness; and there are no inviolate levels in an arbitrary world. The ground one rests upon must therefore be self-created, and the purpose of this creation is to become able to "afford indifference" in a dark world full of disappointments.<sup>191</sup> Accordingly, once established, the ground and everything built on it must be protected from a hostile environment; it must be allowed to evolve.

Luhmann was fascinated by the idea of a theory that would be allowed to evolve according to its own criteria. And one cannot but admire the determination with which he pursued this fascination. This is most clearly expressed in his peculiar working style. In 1952, by the age of 25, Luhmann understood, as he explained later, that he had to plan for a lifetime rather than for a book, and began to systematise his note-taking. Instead of leaving the notes in the books he read and instead of collecting them in folders which remained difficult to survey, Luhmann started to build up his own archive of notes – the famous "Zettelkasten" -- according to a principle which he kept for more than 40 years. The organisational principle is of surprising simplicity. Notes are not categorised according to topics or subjects but are marked only by a code, a string of numbers and characters, which indicates the place where to find the specific note in the system. Within the text of the note, references to other notes are included so that, say, a note with the code 57/12 can either be continued as 57/13 or, starting from a specific word or idea, can be specified under 57/12a, and so on. In this way, the system remained highly flexible, allowing ramifications of infinite depths, and organised itself via its internal references in a non-linear fashion; in fact, after some time the very organisation of the system became an additional source of information. The main system primarily memorised Luhmann's own thoughts, seldom quotations; a separate system took care of bibliographical references and both systems were linked.<sup>192</sup> 30 years after he began to organise his ideas in this way, Luhmann explained his productivity and creativity by referring to his archive. Writing a manuscript was basically to communicate with this system, which not only provided easy access to the notes taken over three decades but also suggested surprising cross-connections between them. The maintenance of the archive, however, eventually took up more time "than writing books".<sup>193</sup>

There is something "self-enclosed" in Luhmann's work. His is the work of a theoretician who wants to see his theory grow, who is meticulous in choosing the appropriate "distinctions" and concepts, who is "playful" in his work as others might be playful with a "glass menagerie": it is too fragile to be taken off the window-sill. And yet, while the Zettelkasten grows, Luhmann remained incapable of conceptualising "moral experience". Accordingly, his impressions of the transition after 1945 are remarkably flat. As the reflections of a 17-year old, this is understandable. But how could his understanding of this situation fail to mature over 40 years?

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<sup>191</sup> *Die Gesellschaft der Gesellschaft*, p.68.

<sup>192</sup> Luhmann publicly revealed the secrets of his "Zettelkasten" for the first time in Niklas Luhmann, *Kommunikation mit Zettelkästen -- Ein Erfahrungsbericht*, in Horst Baier, Hans Mathias Kepplinger, Kurt Reumann (eds.), *Öffentliche Meinung und sozialer Wandel*, (Essays in honour of Elisabeth Noelle-Neumann), (Opladen: Westdeutscher Verlag, 1981), pp.222-228.

<sup>193</sup> For more information on Luhmann's "Zettelkasten" see also "Biographie, Attitüden, Zettelkasten", pp.132,142-145.

Luhmann's inability and refusal to conceptualise moral experiences is the result of a generalisation he must have made at an early age. In a world in which moral ways of experiencing the world are bound to be disappointed, we must conceptualise the world in terms of a "higher amorality".<sup>194</sup> The meditative element in Luhmann's work is not, therefore, an unintended side effect but reflects a deliberate purpose; Luhmann aims to leave the inconclusive debate about morals and reach what sceptics and phenomenologists alike call "epoche".

Unfortunately, however, Luhmann was not a philosopher; he never worked his way through the classics and his occasional comments on Plato are dilettantish. He never developed a language in which he could reflect on the philosophical meaning of his own enterprise; throughout his life he continued to argue from within the system that he had built for himself. This, unfortunately, has also become a widespread attitude among his disciples: they defend the theory from within; they cannot argue from outside the theory.

While Luhmann's intuition led him to acknowledge his proximity to Cusa, he failed to understand the meaning of this proximity and remained committed to the scientific tradition right up to Die Gesellschaft der Gesellschaft, where he is still reflecting on the possibility of overcoming the separation of the natural and social sciences.<sup>195</sup> It is particularly ironic, though not necessarily coincidental, that this lack of self-understanding should afflict the self-declared master of self-reference. Luhmann's inability to understand, and express, moral experiences must be considered a form of illiteracy. *In the contemporary intellectual climate, there is a great danger that this illiteracy is mistaken for some kind of "neutrality" that can be made use of in order to speak of "world society" in non-normative terms.* It is all the more important to recognise that, in spite of his declarations that he was performing a radical break with the "old European tradition", Luhmann firmly belongs to a tradition that is older than Europe.

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<sup>194</sup> Politicians, Honesty, and the Higher Amorality of Politics, in *Theory, Culture and Society*, Vol.11, No.2 (May 1994), pp.25-36.

<sup>195</sup> Die Gesellschaft der Gesellschaft, p.60.