

The Projection of an Ending and Systems Theory: a Sociological Reading of Apocalypse as a Genre

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Abstract

The narratives of the end, particularly the Bible-inspired ones containing apocalyptic imagery, have been studied for centuries. Sociological treatment of this subject has been primarily focussed on apocalyptic communities and millenarian movements, or their social setting (*Sitz im Leben*). The treatment of apocalypse in this article differs in that it is a sociological contribution which focuses on the aspect of genre in its systemic effects from the standpoint of Niklas Luhmann's systems theory. The main interest is to point to the structural issues springing from the idea of imminent ending and its social potential. The author's thesis is that fictions about the purpose and the flow of history from the beginning to the end satisfy, among other potential social functions, our systemic social needs. Various historical imaginings and projections of the world out of existence, despite their different content or politics of representation, seem to share a common systemic logic concerning operational closure and structural openness. Even though the system always seemingly tries to offer solutions to a variety of crises, the real systemic autopoietic interest is to ensure the mechanism that will continue generating new problems, new crises that it can try to solve – that way enabling us to imagine our significance in the space between our present existence and our always imminent non-existence. The projection of an ending is an inherent feature functionally operative in systemic auto-reproduction. The extraordinary historical resilience of the belief that the end is coming despite historical disconfirmations (practised by various transformations of the belief or by deferrals of the end) springs from the recurring systemic need for adjustments in the interest of 'reality' and the control thereof. Thus, by looking into the narratives of the end, the article aims to investigate the systemic logic behind the sense-making process, without losing the materiality of sociological ideas from sight or implying the map of the experience of the Other.

Keywords: apocalypse, Luhmann, systems theory



The narratives of the End, particularly the Bible-inspired ones containing apocalyptic imagery, have been studied for centuries.¹ Sociological treatment of this subject has been primarily focussed on apocalyptic communities and millenarian movements or their *Sitz im Leben* [social setting]. The treatment of apocalypse in this article differs in that it is a sociological contribution which focuses on the aspect of genre in its systemic effects from the standpoint of Niklas Luhmann's systems theory.² The main interest is to point to the structural issues springing from the idea of imminent ending and its social potential. However bizarre, frightening or consoling the Word might be, its effects can be interpreted from the point of view of systems theory as the part of autopoietic logic of (sub)systems. The need to make the world (the time flow) and our own selves orderly is satisfied by producing fictions about the Beginning and the End from the middle position (present). Or, in the words of systems theory, to maintain the difference between the environment and the system it is necessary to keep oneself asymmetrical from the Other: to self-invent oneself from the past remnants of oneself.

Our thesis is that fictions about the purpose and the flow of history from the Beginning to the End satisfy, among other potential social functions, our systemic social needs. Various historical imaginings and projections of the world out of existence, despite their different content or politics of representation, seem to share a common systemic logic concerning operational closure and structural openness. Even though the system always seemingly tries to offer solutions to a variety of crises, the latent systemic autopoietic interest is to ensure the mechanism that will continue generating new problems, new crises that it can try to solve and thus enable us to imagine our significance in the space between our present existence and our always imminent non-existence. The projection of an ending is an inherent feature functionally operative in systemic auto-reproduction. The extraordinary historical resilience of the belief that the End is coming despite historical disconfirmations (practised by various transformations of the belief or by deferrals of the End) springs from the recurring systemic need for adjustments in the interest of 'reality' and the control thereof. Thus, by looking into the

¹ This article was originally presented as a paper at the conference *Don't Panic! The Apocalypse in Theory and Culture* organised by Skepsi and held at the University of Kent 25–26 May 2012.

² This article uses the term 'apocalypse' (without any article) in the sense of 'the literary genre of apocalyptic writings', 'apocalyptic writings' being both 'apocalypses' in the sense of prophetic disclosures or revelations and narratives which focus on apocalyptic events or 'apocalypses' in the sense of events of great importance or violence, like those described in apocalypses (in the first sense), particularly the Apocalypse, or the Book of Revelation. The term 'the apocalypse' always means 'the End of the world as we know it'.

narratives of the End, this article aims to investigate the systemic logic behind the sense-making process, without losing the materiality of sociological ideas from sight or implying the map of the experience of the Other.

1. Sociology and apocalypse

Maybe 1970 was the year for the statement that the scholarly world is ‘*ratlos vor der Apokalyptik* [helpless before the Apocalyptic]’ (Koch), but we have witnessed the expansion of academic interest in apocalypse as a genre ever since. Milestones in critical scholarship were for instance, *The Dawn of Apocalyptic* (Hanson 1975), *Semeia 14* (Collins 1979) and *Apocalyptic Imagination* (Collins 1984). Generally, there were three different foci of attention: on the phenomenon of apocalypticism, on the literary genre of apocalypses and on the sociology of apocalypticism (DiTommaso 2007: 236). In particular, there has been a notable increase in the practice of applying the insights of social sciences to apocalyptic writings (i.e. narratives which focus on apocalyptic events), it being specially apparent that, even when the focus of attention was not strictly or explicitly sociological, studies have tended to draw on sociological or anthropological research or to rely on certain sociological assumptions (Grabbe 1989: 27).

The initial concern of the modern study of apocalypses was with definitions and taxonomy. Apocalypses were predominantly studied in social sciences as the basis for motivating so called ‘millennial’ movements or ‘apocalyptic communities.’³ ‘Apocalypse’ as a literary genre and ‘apocalypticism’ as an ideology were early on recognised as distinct entities (DiTommaso 2007: 239). Most cited are the definitions by Collins (1984) of apocalypse as a literary genre

of revelatory literature with a narrative framework, in which a revelation is mediated by an otherworldly being to a human recipient, disclosing a transcendent reality which is both temporal, insofar as it envisions eschatological speculation, and spatial insofar as it involves another, supernatural world (5);

and of apocalypticism as

the ideology of a movement that shares the conceptual structure of the apocalypses’, and endorses ‘a worldview in which supernatural revelation, the heavenly world, and eschatological judgment played essential parts (13).

But both ideologies and genres defy strict definitions as they need to encompass complex historical evidence (DiTommaso 2007: 241). It has been pointed out that ‘we should be wary, however, not to erect a false dichotomy’ between ‘social-scientific approaches and

³ Grabbe defines these as ‘[r]eligious movements that expect imminent, total, ultimate, this-worldly collective salvation’ (1989: 28).

close literary readings of the text' as 'the social sciences raise questions which can only be answered after careful literary examination' (Esler 1994: 101).

Grabbe (1989) made a summary of proposals and implications in different studies. As mentioned above, some of these intend to differentiate between literary and social aspects of research on apocalypse, while also warning against the reductionism of simplified dichotomies. He also mentions the connections made between apocalypse and apocalyptic communities but stresses that the connection is not a necessary one. He continues by advancing the proposal that apocalypticism arises in times of crisis, that it is opposed by the establishment and that there are social functions which it meets. Each point of view has, however, been subject to criticism, as there are many exceptions. Thus, apocalypticism is neither necessarily the product of the oppressed nor can it be fully explained by relative deprivation, and it may as well be produced by the established institution.

By way of an historical and ethnographic example, The Apocalypse (or Revelation) of St. John the Divine was, in its *Sitz im Leben*, namely the time of Roman persecution of Christians, a 'countercultural code for dissent' (Keller 2005: 10), similar to much of the cultural apocalyptic script used in politics as a narrative of doom for the dominators and hope for the oppressed. As Christianity became institutionalised and apocalypticism became increasingly marginalised, the Church Fathers, such as Origen in the third century and Saint Augustine in the fifth, were obliged to provide allegorical interpretations of the text.⁴ However, apocalypticism and millennialism were historically utilised to legitimise both the vision of world conquerors as millennial saviours, the last kings to defeat the Antichrist, Charlemagne, for instance, and the vision of holy anarchy. The main tropes of medieval millennialism revolved around providing anti-apocalyptic chronologies (to postpone the End) or transforming the empire into a positive eschatological force. Joachim of Fiore's revitalising the non-allegorical reading of the apocalyptic texts of the Bible in general and the Apocalypse in particular did much in the twelfth century to both inspire the Crusades and influence those, such as Richard the Lionheart, who participated in them.

Many ideological and political projects have been fuelled by the same matrix, although they do not explicitly rely on the discourse of apocalypse and the millennium.

⁴ The historical data mentioned in this paragraph are taken from the entry on Millennialism, Encyclopædia Britannica 2006 ultimate reference suite DVD.

For instance, ‘the fanatical Jacobins in France thought of themselves as the Elect and tried to bring about a complete transformation of society, creating a Republic of Virtue through a Reign of Terror’ (Sickinger 2004: 186). This is also the case with the Nazi movement (Waite 1993), and Sickinger (2004: 190) claims that ‘when one examines the Nazi Movement, a more perfect model of millenarianism is hard to find’. Furthermore, the Russian Revolution, the Great Depression and the Cold War have been analysed as instances of twentieth-century millennialism, proving that apocalyptic and millennial discourse may be peaceful or violent, religious or secular (Sickinger 2004: 187). The victims created by these events are extremely prone to millennial thinking, because it promises at least some kind of control and hope. Out of destruction always comes new life and new hope (Leeming 1990: 85-88); *Die Götterdämmerung* or the Twilight of the Gods intensifies the creative role of man (Sickinger 2004: 191).

The twenty-first century has so far shown that issues concerning the apocalypse in the sense of the End of the world are just as popular: the so-called ‘Y2K’ issue as the dawn of the year 2000 approached resulted in the appearance of many an apocalyptic scenario, as did the year 2012 as regards the interpretation of the Mayan calendar. Numerous films on the End of the world or the period after it also bear witness to the popularity of apocalyptic narrative.⁵ One constant theme of apocalyptic texts is the Second Coming: Saint Paul, notably in his two letters to Thessalonians, anticipated that arrival of the Kingdom of God on earth was imminent; about two thousand years later, a quarter of the present day U.S. population believes that the Second Coming will occur in its lifetime (Keller 2005: 8).

Another phenomenon, and one which has something to say about ourselves and about the moment in which we live, is the rise in popularity of not only utopias but also dystopias, created in the face of crises and encompassing fears of the consequences of overpopulation, global capitalism, potential eco-disasters, rapid technological changes and similar issues. In order to demystify the narrative underlying not only many such fears and social worries but also the subsequent hope, we need to start from the fact that this underlying narrative has but rarely been acknowledged as being apocalyptic. Notwithstanding this, even those people who do not believe in it seem to be influenced by the apocalypse, in the sense of the End of the world, such a belief being something of a

⁵ For example, *The World’s End*, *Seeking a Friend for the End of the World*, *After Earth*, *4:44 Last Day on Earth*, *Terminator*, *The Day After Tomorrow*, *Children of Men*, and dozens more.

‘civilizational habit’ (Keller 2005: 8). Consequently, this implies that apocalyptic and related messages can express something widespread in the community; they need not represent the thinking of a connected community and can even be the product of an individual or of the intelligentsia. People of all ranks and classes seem to have been susceptible to the need for transcendental meaning; there seems to be no strict rule. To conclude, Grabbe points out that much of the sociological work on apocalypses has been circular: ‘social situation is first hypothesized from the literature, then this hypothesized situation is used to understand and interpret the literature!’ which is why it seems that ‘all possibilities must be allowed for’ (1989: 39). The apocalyptic imaginary seems to be characterised by an operative ambiguity capable of both revolution and reaction. We seem to be unable to provide an essential subtext but can recognise the performance of something that can be called the cultural apocalypse script (Keller 2005: 4), which literalises itself in history in different ways through our different performances of it. Apocalypse is here seen as similar to Scott’s *hidden transcript* (Scott 1990), operating at the very core of centuries-long processes of modernisation.

The systems approach to apocalypse used in this article also distances itself from the endlessly varied uses and abuses of the apocalyptic narrative and focuses on its persistence, resilience and functional relevance to the material habits of the world. In what follows my aim is to problematise the position of my analysis auto-reflexively. An article discussing fictions of the End of the world from a sociological perspective could use a variety of approaches, with a focus on either actors or the system, the *Lebenswelt* [life-world], structure, etc. This article will apply systems theory and will conclude the analysis with a critique. The analysis therefore focuses on the apocalyptic writings in a specific way, with attention being paid to its form and its social functions from a systemic point of view. As the narratives of the End, apocalyptic writings are studied as an instantiation, or a synecdoche (i.e. the use of a part to refer to the whole), of the human need to make things orderly by producing fictions about beginnings and ends. Using Niklas Luhmann’s systems theory, I will demonstrate that the need to make sense or to create fictions of the End, a need I will paradigmatically call ‘apocalyptic’ in this article, is aimed at satisfying, at least among other things, systemic social needs.⁶ In what follows, I will present Luhmann’s main concepts of system theory and then outline the notions of fiction and the apocalypse within this systems theory perspective.

⁶ Primarily the need to keep going, to continue its existence.

2. Systems theory

There is no one, single systems theory; it was first developed in biology and physics, from where it influenced, or migrated to, other disciplines.⁷ As a result, there are many different theoretical approaches under this label, such as general systems theory, cybernetics, meta-mathematics, systems analysis in engineering or chaos theory, and they all read the world as a system of material and symbolic correspondences and interrelations (Cramer 2001: 1). A general systems theory aims ‘to provide an overarching terminology and a generic description of processes [...] common to differing scientific disciplines’ (Bausch 2001: 9). There have been attempts to find certain commonalities between all systems approaches, such as the view of all phenomena as a composite web of relationships formed from building blocks (Arbnor and Bjerke 2009: 103). The accent is put on a whole (Herting and Stein 2007: 3), which possesses properties that arise as a combination of individual components and is not the sum of individual parts (Sieh 2012: 1344).

The systems theory has also appeared in a sociological version, most notably authored by Luhmann. There are other systems approaches in sociology, such as that of Talcott Parsons, who wrote *The Social System* as an exposition of a conceptual scheme for the analysis of social systems in terms of the action frame of reference (1951: 3); this is to say that the interaction of actors is the underlying component of the system (when looked at holistically) (Sieh 2012: 1347). This is not the case where Luhmann is concerned, as he excludes actors from the social system (Gershon 2005: 99) and includes them in a separate one. The key distinction for Luhmann is not between the actor and the system but between the system and its environment (Gershon 2005: 100). Social systems are for Luhmann autopoietically closed, i.e. they work by their own code, reproducing themselves from the past remnants of themselves, recreating themselves in infinite loops.

The notion of autopoiesis that Luhmann used was first developed by biologists Maturana and Varela (1980; 1987). Maturana and Varela made a major systems theoretical paradigm shift in the 1970s by challenging the traditional distinction between open and closed systems. Bertalanffy (1968), the founder of the general systems theory, claimed that all systems have to be open in their communication with and adaptation to the environment in order to survive. Closed systems are, in his general systems theory,

⁷ Sommerlatte (2002) states that the German scientific community has agreed to reserve the notion of *Systemtheorie* for the use in the sociological sense.

treated only as an analytical possibility. Maturana and Varela, however, did not categorically rule out the viability of closed systems but stressed the auto-reproduction of systems. The model they took to illustrate how closed systems construct their world through their own medium and interaction with themselves is the brain, which reconstructs the external world in terms of internal states (Knorr Cetina 1994: 15). Autopoiesis is the trope for recursion or self-reference, processes that are crucial for the self-reproduction of living organisms and thus serve to differentiate between the living and the non-living (Mingers 2004: 404). Autopoietic systems are organisationally closed, a statement that ‘can be misleading if it is taken to imply that these systems do not interact with their environment’, because the closure is meant ‘in the sense that the product of their organization is the organization itself’ (Pearson 1997: 56).

Another significant influence on Luhmann came from constructivist cyberneticians, primarily Heinz von Foerster. Two of von Foerster’s views were particularly relevant here: first, von Foerster sees humans as non-trivial machines, due to which we have to accept the ‘autonomy’ or ‘autopoietic manner’ of humans and social systems (Herting and Stein 2007: 6; von Foerster 1992);⁸ secondly, he understands communication as a process of individual sense-construction, whereby the processing of signals to information makes sense to us.⁹ Also, the Biological Computer Laboratory, founded by von Foerster at the University of Illinois in 1957, was the ‘cradle of the concept of second-order cybernetics’ (Herting and Stein 2007: 5). Second-order cybernetics is considered to be the founding place of radical constructionism, as it considers the role of the Observer in the research process. It also reflects on her role and influence on research results, claiming that ultimate objective observation is impossible (von Foerster 1995). Luhmann built his theory of autopoietic systems largely on the fundamentals of second-order cybernetics.

In Luhmann’s view, the system always relies on its own internal tools to reproduce itself: it is autopoietic (Luhmann 1984). In order to be autopoietic, the system must observe and judge its functioning (Luhmann 1984), because the act of making distinctions, so relevant in the emergence of the system, is the act of observation

⁸ This means that their operations cannot be calculated in the same way as those of physical ‘trivial’ machines.

⁹ Herting and Stein warn, however, that these interpretations are not necessarily different between individuals: ‘We are living in a culture that directs us to develop a stable behavior and to interpret certain signals in a very similar way. The similarity of our interpretations leads us to the illusion that there must be the same information available to everybody, thus concealing our own interpretative work’ (2007: 6).

(Gershon 2005: 101):¹⁰ acts of observation keep the system alive. The first distinction that the system makes is between itself and the environment; this creates the boundary between inside and outside and is a first-order system-establishing observation. The system, however, continues making distinctions on the second level, where the system-establishing distinction is by recursion introduced into the system again, observing the act of observation (of making distinctions), noticing the categorisation. All observation is always internal to the system. Thus, systems theory is one of society's self-observations (Gershon 2005: 101).

As the central distinction in Luhmann's theory is between system and environment, the system is only possible as one side of this distinction (1984: 176). Systems challenge their boundaries, but they can never exceed them: they cannot observe from outside of the system. The environment is thus always just another system. The change in one system (the environment of other systems) causes the changes in surrounding/interdependent systems. Other systems or the environment supply the system with adequate disorder. The border between the system and the environment is the limit between the order that the system is always trying to establish, and the overly complex environment. Thus Luhmann's social theory revolves around the attempt to answer the traditional sociological question of the possibility of society (1981), a concern going back to the old Hobbesian problem of order (Bjerg 2006: 50). The noise and the chaos of the environment are constantly made internal to the system: they fall within a constructed social order. Luhmann (1984: 181–85) speaks of the *Komplexitätsgefälle* [the reduction in complexity] of the system compared to the environment. The capacity of systemic self-reproduction involves the reduction of complexity that is present in the environment, achieved by actual selections and actualisations of potential observations in the environment (Bjerg 2006: 51). Complexity works as a generator for system creation and Luhmann speaks of a 'complexity pressure' (1990a: 68) whereby the system is 'being forced to select' (1984: 25) among many possible observations in the environment. The selections that the system makes, thereby filtering observations and reducing environment complexity to order, do not take care of the environment but only of internal systemic needs, primarily the need to reproduce and continue itself, which is why the observations are selected in a way that they can be connected to subsequent observation (the ultimate

¹⁰ Participation is not considered to be a system-establishing instance, because Luhmann treats systems as functionally closed and subject-free.

end or purpose of every system). This is what Luhmann terms *Anschlussfähigkeit* [the ability to be a connection] (1984),¹¹ a characteristic central to the notion of autopoiesis.

Claiming that complexity of the environment is just another systemic observation reveals a paradox. Complexity of the environment is treated in Luhmann's systems theory as a catalyst for the creation and reproduction of systems, so we have to assume that complexity in the form of potential observations (the system can select from) is *older than* the system; that it exists prior to it.¹² If environment complexity emerges posterior to the system's observation of the environment, it cannot catalyse the creation of the system. Consequently, it makes no sense to see the system as complexity-reducing.

Luhmann's treatment of paradoxicality might seem postmodern, but he actually dismisses the problem of postmodernity, claiming that systems theory is already well-equipped to incorporate the problem of paradoxicality (1997). Luhmann bases his theory on difference and sees paradoxes as intrinsic and unavoidable parts of life (i.e. of systems operations). Paradoxicality is, however, not a question of existence for the system (Luhmann 1985), but is one of the mechanisms of the system's auto-reproduction. Paradoxes appear only on the meta-level, the level of observation and not on the level of the observed or the existential level, which is why the system can ignore or avoid them by switching between the levels of observation. This is so because the process of autopoiesis is not a logical process, which means the system can tolerate the situation in which the conditions of possibility are at the same time the conditions of impossibility.

Bjerg (2006: 63-64) provides an example from the world of art to illustrate this position. Art system (subsystem) functionally operates on the distinction art/non-art. In 1986, an unknown artist Gerard Jan van Bladeren destroyed, with a knife, Barnett Newman's modernistic masterpiece painting *Who's Afraid of Red, Yellow and Blue III* (1967). He was arrested for the act and the painting was restored to the original state. In 1997, van Bladeren attacked another of Newman's paintings, *Cathedra* (1951), and cut it seven times. The question is whether van Bladeren's act is vandalism (non-art) or a productive artistic comment on the abstract art (art in its own right). If it is rejected as

¹¹ Customarily translated as 'connectivity', although the inability of English translation to capture the meaning of ability to connect has been pointed out (Bjerg 2006: 66).

¹² Habermas and Luhmann led passionate year-long debates on the meaning and functioning of systems and the life world. The criticism of systems theory as social technology founded on the paradoxes upon which Luhmann bases his assumption that the environment is always more complex than the system, and that the system always selects from the environment and thus reduces its complexity, was advanced by Habermas relatively early on (1971).

vandalism on the grounds of the integrity of the original artwork, how can the restoration of the destroyed painting (no longer an original) be justified? Van Blederen wanted to repeat his (self-proclaimed) artistic act by the second slashing because he thought the conservators had done damage to his first artistic act. In this scenario, the status of the act is ambivalent and creates a paradox within the art system. The system duplicates itself here, as we cannot decide if the act is art or non-art, and the paradox cannot be escaped by creating a subsystem (introducing the distinction on another level).¹³ The complexity of the environment cannot be said to be *reduced* in this case, but on the contrary, it seems that a great deal of complexity is *produced* by the very system, i.e. a legal, moral and ethical system created by social actors.

Such cases are referred to as ambivalent complexity by Bjerg (2006), who furthers the explanation by applying Baudrillard's (1999) distinction between crisis and catastrophe. Complexity itself brings about crisis for the system,¹⁴ but ambivalent complexity brings catastrophe. Baudrillard defines the postmodern state by differentiating between crisis, which means 'tensions and contradictions' and presents 'the natural movement of our history', and a catastrophic process in which we are now, though 'not in the sense of a material apocalypse, but in the sense of an overturning of all rules', which means that we have to function 'by rules we do not know', and 'nothing is simply contradictory or irrational in this state', but 'everything is paradoxical' (Baudrillard 1999: 18). This can further be associated with the distinction between risk and danger (Luhmann 1993): risk is a threat produced within a system, it is related to the fact that a system has to select; it might not select the best option, but it will still make a selection, and perpetuate itself. Contingency contained in the very process of selecting means risk (Luhmann 1984: 25). Crisis and risk do not bring the very existence of the system in question: the system, one might say, paradoxically, remains possible both because and in spite of them. Ambivalent complexity, which brings the system into the state of catastrophe, opens, again, perhaps paradoxically, the possibility of the impossibility of the system by discovering that the continuity of the system is possible only as a discontinuity

¹³ Although the legal system was used to judge this act, paradoxicality remains, because the nature of items belonging to the system of art cannot be decided legally in this way, despite the punishment of vandalism.

¹⁴ Kuhn's paradigm (1996) can be interpreted in this vein from the systems theoretical position: science as a system accumulates crises that it internalises into ordered, comprehensible, systemic notions, which it then resolves in a way and ensures its continuation as a system. Crises are thus something that the system needs, because it can autopoietically continue itself around the attempts to solve them.

from its formative rules, and this discontinuity is a void in the autopoiesis of the system (Bjerg 2006: 64-65). It seems that complexity is not reduced but produced by the system, or perhaps it is repressed by environment complexity that creates uneasiness in the system. This is the irreducible complexity which brings the existence of the system in danger.¹⁵

This danger is the danger of *Anschlussunfähigkeit* or the inability to find solutions that could be connected to the previous ones, because connectivity rests upon meaningfulness. Although not necessarily logical, autopoiesis involves the creation of a meaningful reality; it is fundamentally the process of the signification of the unsigned or a sense-making process.

If the environment is only imagined (a present absence), its complexity and the very distinction between inside and outside, system and environment, are not unambiguous. Paradoxicality is a constitutive, if not *the* constitutive, feature of all systems. Every system has a blind spot as it is challenged on the level of its constitutive selectivity, and it cannot see the unity of the distinction underlying its operations as a form that produces both sides of the code, i.e. it cannot see that it does not see what it does not see (Knodt 1994). By stressing both the exhaustion of the binary logic of classical ontology and the irreducibility of paradox, as contained in the structure of observation, which gives any system an inherent blind spot, Luhmann seems, once again, to be at one with postmodern thinkers such as Lyotard or Derrida. Paradoxically, however, Luhmann's complexity is such that he cannot easily be categorised as either modernist or postmodernist. The accusation of performative contradiction, namely that critics of modernity from Nietzsche to Lyotard used discursive rationality to state the dilemma, was systemically rethought by Luhmann: he put the relationship between cognition and paradox within the framework of constructivist epistemology. This was one of the most rigorous attempts to challenge the binary structure of classical logic and its prohibition against paradox (Knodt 1994: 79–80).

To introduce the challenges with which systems theoretical interpretation of apocalypse presents us, we need to focus on the systemic functions of projecting the End with the awareness that there needs to be the End in order for the Beginning to appear.

¹⁵ Luhmann (1993) considers the difference between risk and danger not in the sense of Baudrillard's crisis and catastrophe but in terms of how people imagine their relation to nature or others i.e. how they imagine the relationship between responsibility and contingency. Danger comes from the environment and is thus uncontrollable, which means that people are not responsible for the possible threats it may bring.

Or, there must be a criterion to direct the process of selection, i.e. to make actualised observations connect. We need to know both values of the distinction, in order to know the first one. A rationale interior to the system (its purpose or *end*) governs the process of selectivity, crucial for the self-reproduction of the system. To illustrate this, we can take time as an example. A second as an interval of time, a system in its own right, cannot be determined without the primacy of *tock*, i.e. *tick* cannot find its meaning without its relation to *tock*.¹⁶ Even if it appears that *tick* precedes *tock*, it is actually vice versa in terms of their systemic emergence or in terms of the duality of the distinction necessary to establish both/any. *Tick-tock* becomes an ordered construction, a way of comprehending time in the form of reduced complexity. It should not be forgotten that the End is always projected (and consequently that futures are construed) from the vantage point of a system.

The need to make time orderly (the need to grasp time, to signify the present moment as the meaningful progress from the Beginning to the End) is a systemic need *par excellence* and it finds its correlative in narration (fiction). The *tick-tock* construction is a fiction; apocalypse is too. Though aware that their meanings rest upon the essentialist void, i.e. that there is no unambiguous meaning to be recovered, our interests do not find their rest once it has been shown that there is only the mechanism of differentiating or making distinctions at the heart of meaning-production but find new stimuli in research on the modes of possible enchantment springing from the knowledge that the world, including science, is run on fictions (Knorr Cetina 1994: 5).

3. Apocalypse as a systemic mechanism or on the fictional projection of an end

The discussion of the general conceptual apparatus of systems theory reveals that the notions of complexity, fictionality and autopoiesis enable a researcher to treat apocalypse, in this case specifically meaning a fictional representation of the end of the world as we signify it, as a system-internal and autopoietic mechanism aimed at system-maintenance. The perspective of systems theory enables us to avoid the problems that much research on apocalypse faced, the problems arising from an attempt to provide a monolithic explanation of a complex literary, religious and social phenomenon. Crises and paradoxes provide the system with the material to continue its autopoiesis, and it is the system itself that creates them. Apocalypse is here treated as a synecdoche of that mechanism, as it

¹⁶ A similar argument was made by Kermode (2000: 45).

brings crisis and catastrophe into the system; it absorbs them, makes them system-internal and thus orientates much of the system-reproduction. It is a *pars pro toto* representation of the mechanism every system needs to ensure in order to continue itself.

Apocalypse illustrates the operational unity of the system, i.e. operational closure as the condition of structural openness. A self-referential system in its own right, apocalypse is a totalising system in the sense Luhmann (1990b) referred to it, as the inclusion of all exclusions. Apocalypse introduces into the system a possible observation of the end of time and the end of the system. In other words, it introduces the image of the environment (which is always ultimately unrepresentable) into the system. As such, it represents an 'actualized inactuality' (Luhmann 1992: 106), whereby paradoxes reappear and indicate systemic blockages that need to be resolved in new, creative, not necessarily logical ways (Knodt 1994: 87). To remove these blockages the system reintroduces the distinction, unfolds the paradox, by allowing for self-reference. Temporal dialectic is especially important as it enables the distinction between what something is and what it is not to be reformulated as something that it has not yet become but cannot deny it will become without denying itself (Knodt 1994: 87). According to Luhmann (1992: 7), *Wiedereintritt der Leitdistinzenz* or re-entry of the leading distinction is a strategy for undoing the paradox contained in any use of a binary code, a second-order observation is needed for the blind spot to become visible as self-observation. However, the re-emergence is also possible only as a new paradox, as the very structure of observation or the act of drawing distinctions is irreducibly paradoxical and marked by constitutive blindness.

Regardless of whether apocalypse is seen as an expression of the oppressed and marginalised or the established or whether it serves system-changing or system-continuing purposes in different social studies, the interpretation of the genre from the perspective of systems theory does not change. A consequential constructionist position needs to be taken as the one best suited to penetrate the domains that appear unitary and homogenous, to see how factual or at least authoritative meanings are constituted. There is no one true interpretation of the apocalypse, it is a void that can never be found. To claim that one meaning is the true one means forgetting the fictive nature of the world construed on the basis of drawing distinctions, and marks the 'return of myth' in the act of disavowing the mythical (Wellbery 1986: 79). Knorr Cetina (1994: 3-6) outlines a sociological notion of fiction, pointing out that constructionist studies marked the rise of the notion of fiction and suggested the pervasiveness of fictionality as a routine aspect of

social life, whereby modes of fiction can be seen as enchantment mechanisms of cultural imagination or in a wider sense as symbolic technologies embedded in or constitutive of performance. Constructionism has emphasised contingency, negotiation, rupture, discontinuity and heterogeneity in social life, and is thus continuous with deconstructionism, even though its focus is not solely on texts but a wider notion of practice is taken into account. Examples of the mentioned *sociological fictions* are, for instance, that husband and wife are one person or that family relations can be created artificially, which are fictions in law (Knorr Cetina 1994: 8). Fictionality seems to operate as an ideal system-reproducing mechanism, as it introduces order by creating greater inner viscosity, bridges the gaps between different parts of the system (where necessary) or changes focus. In other words, it is instrumental in systemic autopoiesis. Fictions reconfigure relationships between ourselves, others and the (sign of the) world. The ontology of the objects represented is always the ontology of the past and the absent (Knorr Cetina 1994: 16).

The study of apocalypse is an illustration for complexity theory: it is an instance of a situation in which order is intertwined with chaos (Urry 2003: 106). Complex systems are very dynamic, which is crucial for their connectivity and autopoiesis. Apocalypse is an example of temporal complexity (Luhmann 1978); temporally unstable components increase the systemic complexity and consequently the stability of the larger system. Continual disintegration of components seen on the level of content creates the space for successor-elements, which increases the chances of survival of the overall system. The temporalisation of elements constantly changes the ways in which elements relate to each other and connect, which is an important factor in the successful reproduction of the system. Imagining a transcendent time, in other words, the end of the present time, is a component of parallel living, which comes to define one's world by re-differentiating the content of one's past and future (Dreyfus 1993). Both the prospect of the Second Coming and the question when it will come give a possible solution to the problem of how to cope with the situation of waiting (Knorr Cetina 2005: 218). This is living from the future, from the perspective of the promise, which makes the living of time orderly, simplified, pulled back from the endless multiplicity of possibilities (Guignon 2000). The world must not change in its content, everyday activities continue, but the structure of feeling and the living of time have changed due to this futural mode (Knorr Cetina 2005: 218). Lived time appears to transcend ordinary time by shadowing it with a second future that embeds

everyday activities within a new meaning structure (Knorr Cetina 2005: 219). A projection of an ending stirs, stimulates and orients action, and the projection of an ultimate ending represents an attempt to go beyond the system, to find an instrument for seeing the true nature of the system. In other words, apocalypse is a system's observation of its blind spot, a reflexive mechanism of self-observation and projection (past its borders, but all within its borders). Systematically speaking, such futural end projection has world-making effects: it constructs the past as we know it (Goodman 1978).

We can thus refer to apocalypse as a radical instance of this systemic mechanism. It reflects our deep need for intelligible ends which springs from the need to project ourselves past the End so as to see the whole structure (or to be objective, neutral and free from ideology). If time flowed in a meaningless fashion, if there were no intervals into which to divide, we could not say it flows at all. This is a demythologised view of both apocalypse and the apocalypse (as these terms are defined in footnote 2) as a mechanism that helps us to find order in chaos. Historical disconfirmations of apocalypses serve as an additional argument that it is patterns and not facts that we need.

Apocalypse can be defined in the framework of systems theory precisely by its failure to happen; it never confirms an expectation and it is fascinatingly resilient to the fact of historical disconfirmation. Its operation is thus systemically ideal: it can transform itself or defer in the interest of continuing itself (as apocalypse). Hence, apocalypse may be seen as either a tool or a story of how individuals make sense of the world. It is closely related to our need to speak ontologically about our lives, providing clues to the ways in which fictions whose ends are concordant with their origins satisfy, among other things, social systemic needs. The End determines the view of the Beginning; it is inherent, within, necessary for the story of our lives to begin. The mechanism of imagining and projecting the End can never be permanently removed, though it must be readjusted to be functional. Systems seek maximum interior complexity of making sense of the world or of system-making. Paradigms of apocalypse thus continue to lie under our ways of making sense of the world.

4. The problem of ideology or can there be a critical systems perspective?

Taking a position from which, in social sciences, one speaks about an object is bound up with criticism, the purpose of which is to reveal an immanent ideological position. The interpretation of a social and cultural phenomenon like apocalypse from the point of view of systems theory commonly evokes the problem of the lack of critical dimension.

Luhmann's theory of social systems was criticised on many levels, predominantly for methodological antihumanism, descriptivism, reductionism (e.g. of sociology to the logic of instrumental reason) and the lack of a normative perspective that could provide guidelines for action (social problems approach).

Mingers (1995), for instance, addresses the problem of the absence of human agency from Luhmann's theory that sees the social system as consisting of communications and not humans. Although this approach may function analytically, it cannot, claims Minger, show how communications are produced or generated; social systems may be self-referential in the sense that communications are linked to each other and always result in further communications, so this approach cannot explain that the social system is self-productive or autopoietic.

Giddens's critique of functionalism (1984) can be said to hold good for Luhmann, as both perspectives are unable to see human beings as agents at the centre of social reproduction and both claim that there are social needs and functions that have to be satisfied, which results in a subject-free view of historical driving forces independent of human activity (or awareness). A good example to illustrate the rationale for such criticism is Luhmann's perspective on social movements as alternatives without alternatives that protest against the functional differentiation of society, fetishise opposition without any analytical depth and stage provocation as an end in itself (1996: 75–212). Such theoretical conceptualisations by Luhmann were received as totalitarian in that they forestall critique and consider opposition undesirable (Fuchs and Hofkirchner 2009: 114). Also, Luhmann's theory has been seen incapable of answering the challenges of ecological problems because, being based on the duality of system and environment, it only deals with how society communicates ecological problems and even, based on the radical constructivist epistemology, argues that they are problems only as long as society communicates them as such (Fuchs and Hofkirchner 2009: 114).

However, the superficial level of the debate seems to misinterpret many of Luhmann's contributions, which is one of the reasons why Luhmann's theory of social systems can even be said to figure in critical overviews as *the* uncritical perspective. A more properly posed question would be whether the theoretical position which stresses the inability to see one's blind spot is uncritical or actually more critical than the perspectives trying to advocate the need of taking a specific future perspective (of the ghostly promise, absent presence, utopia, *Zukunftsbild* [picture of the future]). Similar to

treating apocalypse as a synecdoche of systemic autopoietic sense-making, Luhmann's theory of social systems can be treated as a synecdoche of the uncritical in contemporary social theory, revealing an unsurpassed centuries-old *Methodenstreit* [debate over methods]. We no longer term the sides of the 'fight' over methods as positivistic versus anti-positivistic, nomothetic versus ideographic, *naturwissenschaftlich* [scientific] versus *geisteswissenschaftlich* [humanistic], but the remnants of the fierce debate that comprises the foundations of modern social sciences, particularly via the neo-Kantian perspective of Max Weber, can still be recognised in the opposition between qualitative versus quantitative methods, functionalist versus reflexive sociology, consensus versus conflict perspectives, or the critical versus the uncritical.

Put in this context (of the critical treatment of Luhmann as uncritical), the critical seems to imply the normative aspect of social sciences and to call for the unity of theory and practice, knowledge and will, ethics and politics, system and life-world. In an attempt to reveal pseudo-critical attempts, Schroyer (1973) stresses that one needs to undertake a painful return 'to the origins of critique' not in the sense of 'the antiquarian exercise in the exegesis of the sacred texts of the critical tradition', but with acute awareness that there is no *telos* of critical theory to be recovered (30).

Pondering on the ideological functions of social theory, Schroyer points to an alliance between technocracy and social theory, especially in conceiving our chances for development in terms of the internal needs of the system, a position which has led to the view of internal dynamics of social change in postmodern societies as a cybernetic process (1973: 33). This approach sees liberation and emancipation as the capacity to adapt to an externally imposed necessity, passivises actors, and sees itself as the historical realisation of the ideal of reason, because the production of knowledge has in technocratic societies become fundamental to socio-cultural change, it has unified knowledge and production (Schroyer 1973: 34). However, the crux of crisis of modern society is the identification of knowledge and/or reason with science because this mystifies the world by replacing social values with technical rules. Schroyer (1973) claims that from Socrates' conception of critical knowledge as the process of arriving to truth through negating and trying to see the invisible in the visible (or the essential in the appearing), which recognises mystifications of conventions that dominate human potentialities, through Hegel's critique of reified consciousness that binds life to habitual social forms to Marx's and (neo)Marxist theories, critical theory has been characterised by the attempts

to reconstruct the constitutive genesis of the existing in order to recognise the actual possibilities that are objectively present in the existing. This is to say that critical theory seems to be incapable of ignoring the utopian anticipation of objectivity.

However, the question of the possibility of a dominant consciousness remains. Aware that mental schemes map our reality (make orderly the relation to each other between theory and reality and theories), we must admit that structures (at least to a high degree) determine how we perceive reality. This awareness calls for the theory of the duality of agency and structure (of downward reductionism or individualism versus downward projectionism or structuralism) (Fuchs and Hofkirchner 2009: 120). In other words, critical theory needs a systematic anticipation of socially emergent alternatives, as there is no universal recipe for emancipation. Among the attempts to theorise the interconnection of agency and structure is the so called critical systems theory, which starts from the complexity theory but with the emancipatory interest of responsible theory to salvage the idea of utopia. It is a negotiation between a critical theory and the systems theory. For the purposes of this article, the main points of discussion between the opposed perspectives of the systems theory and a critical theory can best be exemplified by the Luhmann-Habermas debate.

Based on Marx's *Weltanschauung* and in the spirit of rational debate and mutual understanding, which are the parts of the universalizing tendency of *Diskurs*, Habermas offers a critical theory that, accepting and absorbing the influences from other theoretical traditions, anticipates consensus as its result. Habermas diagnoses modernity as a decoupling of system and life-world, whereby he borrows from systems theory the principle of functional differentiation and its evolutionary framework (Knodt 1994: 97). But what is missing from Luhmann's theory from Habermas's point of view is the idea of a normative centre that would allow modern society to form a critical consciousness of itself as a whole, the construct of a public sphere that could fulfil this function and the ideal of autonomy and human self-determination that he hopes to preserve, not realizing that he thereby tries to ground his theory in the Archimedean point of rationally motivated consensus (Knodt 1994: 98). This is partially why it is so hard, or even impossible, to refute Habermas' position. He refuses to give up the normative ideal implied in the communicative practice of the life-world, as we would otherwise be left with no standards by which to judge, thereby attempting to reunite ethics and

epistemology. In this context, Habermas sees Luhmann's theoretical position as a cynical affirmation of the *status quo*.

However, the question of the possibility to transcend ideology from within discourse is deeply problematic. Luhmann sees the theory of communicative action as a self-referential autopoietic system and discourse as the effect of the operational closure of a system that observes itself from within and thus conceals its contingency (circularity of the orientation towards coherence and consensus and constitutive systemic selectivity springing from this orientation). Concealing the operation underlying one's observation can be seen either as ideological or as the return of myth, because the clear-cut distinction between strategic and communicative action cannot be maintained by the very discourse that postulates this distinction as fundamental. Habermas's ideal speech situation is in this sense comparable to Marx's promise of communism, and they both function as spectres from the future trying to make themselves present in their absence.¹⁷ To see the future or to know the world, to reflect the environment in the system, they are all impossible glimpses into exteriority, as the distinction observation operates by is itself the product of observation. Luhmann thus sees discourse as one of the social system's reproductive mechanisms, i.e. normative integration as only one special case of functional integration. Habermas's political critique of systems theory is, in Knodt's argument (1994: 100), a protest against the vision offered by techno-science of a self-regulating semi-autonomous machinery, in which the aspirations of practical reason are reduced to a functionally necessary deception; this is a protest that must repress the contingency of its selectivity as the conditions of its possibility but without facing the paradox as its necessity, namely the theory characterised by a desire for unity (of theory and practice, reason and idea of reason) that in the end produces differences and thus becomes utopian in the literal sense of the word. The critical view can therefore be said to reside in the reflection on the differences underlying unity, aimed at preventing fiction turn into myth, which makes the distinction made in theoretical overviews between Habermas as critical and Luhmann as uncritical theorist problematic.

A demythologised view of the apocalypse is in line with the need to demythologise our deep need for an intelligible flow of time or of system-making. Making sense of the world is characterised by ever greater complexity, fuelled by immanent paradoxes and systemic ways of deparadoxication. If we cannot break free from the form (or see our

¹⁷ See Derrida's *Specters of Marx* (1994)

blind spot), we must make sense of it. Whatever the sense, the systemic interest of autopoietic reproduction is satisfied. System is a plot, though not more human than its apparent antithesis, reality. The possibility of revolution is questioned from the perspective of order—reproducing instances which stage imagined resistance. But there can be no one without imagination, literally speaking. Imagination, that is, the ability to visualise things which are not, is thus seen as both a function of freedom and a methodological suggestion, because real ideology lies in what is left in the background by some visualisation of an end, for instance, political passivity invoked by fear. One must not forget, however, that no fiction is supreme; all fictions should be regarded as contingent fictions, as otherwise they turn into myths and obscure actual social relations. The objective world of myths is to be replaced by the subjective consciousness of fiction. This means realising that a complex structure is actually reductionist. Fictions only become agents of change if their fictionality is considered as a way of making sense or of system-making. If this is overlooked, fictions turn into myths and become agents of stability.

5. Conclusion and summary

This article has offered a sociological reinterpretation of apocalypse from a particular point of view, namely, that of Niklas Luhmann's systems theory, with the result that the fictional status of apocalyptic texts has been stressed in terms of systemic autopoietic operations. The main conclusion is that fictions about the purpose and the flow of history from the Beginning to the End satisfy, among other things, our systemic social needs with cultural and historic specificity. Sociologists have studied apocalypse primarily as being connected to the *Sitz im Leben* or social settings of apocalyptic communities and millenarian movements, with social, literary and ideological aspects studies separately. The rise of postmodernist theory has raised an awareness of the need to avoid strict dichotomies between social-scientific approaches and close literary readings of the text.

The discussion of the general conceptual apparatus of the systems theory reveals that apocalypse, here meaning fictional representations of the end of the world as we understand it, can be studied as an autopoietic mechanism aimed at system-maintenance. The perspective of the systems theory enables us to avoid the problems that much research on apocalypse faced, namely, the problems arising from an attempt to provide a monolithic explanation of a complex literary, religious and social phenomenon. To deal with the challenges of systems-theoretical reading of apocalypse, we need to stress

functional closure and structural openness as produced by the projection of the End, with the awareness that the End is needed for the Beginning to appear; alternatively, there must be a criterion according to which the process of selection or actualisation of observations can be directed in order to be able to make them connect. A rationale integral to the system (its purpose or *end*) governs the process of selectivity, crucial for the self-reproduction of the system. As a narrative of the End, apocalypse is studied as an instantiation of the human need to make things orderly by producing fictions about beginnings and ends. The constructionist epistemology of Luhmann's systems theory orientates the study towards the notion of fictionality as a routine aspect of everyday life. The world is made of fictions and runs on them, but to forget the fictive nature of the world construed on the basis of drawing distinctions would be to mythologise (and reify) the world. The need to make sense or to create fictions of the End is paradigmatically referred to as apocalyptic in this article, and it is aimed at satisfying (at least among other things) systemic social needs. Thus, apocalypse is here a synecdoche of the mechanism every system needs to ensure in order to continue itself: apocalypse illustrates the operational unity of the system, i.e. operational closure as the condition of structural openness. A self-referential system in its own right, apocalypse is a totalising system: it introduces into the system a possible observation of the end of time and the end of the system. In other words, it introduces the image of the environment into the system. Regardless of whether apocalypse is used by the oppressed or the power holders, whether it serves system-changing or system-continuing purposes in different social studies, the interpretation of the genre from the perspective of systems theory stays the same.

The study of apocalypse is an example of complexity theory. Complex systems manifest an observational and temporal dynamics fundamental to their *Anschlussfähigkeit* and auto-reproductive principles. Apocalypse can be viewed as an instantiation of temporal complexity, where temporally unstable components increase the (inner) complexity and thereby the stability of the larger system. Continual disintegration of components seen on the level of content creates the space for new elements, which increases the chances of survival of the overall system. The temporalisation of elements leads to a continual change of patterns of relatedness, and this is an important factor in the successful reproduction of the system. Imagining a transcendent time, that is, the end of the present time, reorganises the content of one's past and future and thus defines the world. Both the prospect of the Second Coming and the question when it will occur give a

possible solution to the problem of how to cope with the situation of waiting, in which there are many functionally equivalent possibilities. A projection of an ending stirs, stimulates and orients action, and the projection of an ultimate ending represents an attempt to go beyond the system. In other words, apocalypse is a system's observation of its blind spot, a reflexive mechanism of self-observation and projection.

We can thus refer to apocalypse as a synecdoche of this systemic mechanism. This is a demythologised view of apocalypse as a mechanism helping us find order in chaos. Historical disconfirmations of apocalypse serve as an additional argument that it is patterns and not facts that we need. Apocalypse can be defined in the framework of systems theory precisely by its failure to happen; it never confirms an expectation and it is fascinatingly resilient to the fact of historical disconfirmation. Its operation is thus systemically ideal; it can transform itself or defer doing so in the interest of continuing itself. This is why apocalypse is a story of how we make sense of the way in which we make sense of the world. The mechanism of imagining and projecting the End cannot be permanently removed, though it must be readjusted to be functional. Systems seek maximum interior complexity of making sense of the world or of system-making. Paradigms of apocalypse thus continue to lie under our ways of making sense of the world.

Finally, the interpretation of a social and cultural phenomenon like apocalypse from the position of systems theory commonly evokes the problem of the lack of critical dimension. Our question in analysing the (un)critical dimension of systems theory was whether the admitted inability to step out of the system is uncritical or actually more critical than various attempts that advocate the possibility and the urgent need of utopia or revolution. The Habermas-Luhmann debate was problematised as an example. Habermas critiques systems theory as techno-science of self-regulating semi-autonomous machinery in which the aspirations of practical reason are reduced to a functionally necessary deception. However, Habermas's protest must, like any protest, repress the contingency of its selectivity as the conditions of its possibility. But without facing the paradox as its necessity, Habermas's theory, characterised by the desire for unity (of theory and practice, reason and idea of reason), in the end produces differences and thus becomes utopian. Luhmann sees the theory of communicative action as a self-referential autopoietic system and discourse as the effect of operational closure of a system that observes itself from within and thus conceals its contingency (circularity of the

orientation towards coherence and consensus and constitutive systemic selectivity springing from this orientation). Concealing the operation underlying one's observation can be seen as ideological or as the return of myth, because the clear-cut distinction between strategic and communicative action cannot be maintained by the very discourse that postulates this distinction as fundamental. The critical view can therefore be said to reside in the reflection on the differences underlying unity, aimed at preventing fiction from turning into myth, which makes the distinction in theoretical overviews between Habermas as critical and Luhmann as uncritical theorist problematic.

If we must fulfil our need for order, we should not forget that any order is just one of many (functionally equivalent) possibilities. To demythologise both apocalypse and the apocalypse (as these terms are defined in footnote 2) is to demythologise our deep need for an intelligible flow of time or of system-making. The stubborn resilience of the belief that the End is coming despite repeated historical disconfirmations has been maintained by either varying the belief or putting off the End. This fascinating resilience stems from the continual need of the system to adjust. Imagination is seen as a crucial faculty of human existence. The methodological suggestion is to replace the objective world of myths by subjective consciousness of fiction. The way to make fictions become agents of change is to reflect upon their fictionality and to influence the world by changing them.

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