Before or beyond narrative? Towards a complex systems theory of contemporary films

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5. Agents and patterns of causality in traditional and network narratives

In chapter 4 I highlighted the complex workings of causality and agency in *Burn After Reading*. Here I will embed this analysis in a broader discussion of the role of causality in complex films. First, I will briefly present the way that causality has been conceived in narratological models, which have also influenced film narratology. I will then ask to what extent complex films differ from these accounts of narrative causality, requiring a shift in our theoretical approach beyond the prevailing models. As a point of reference I will use the case of “network narratives” (David Bordwell), which, from a broader angle, have also been characterized as “multi-character” or “ensemble” films. The multiplicity of characters/narrative actors that these films usually involve and their “loose” cause and effect chains will be explored as possible factors of their deviation from other films. However, the question of what constitutes loose causality still remains. I will argue that the answer to this question cannot be provided through the traditional Aristotelian or structuralist approaches of narrative causality. An approach of complex films as complex systems suggests that causality in them is an emergent attribute of the interactions among their basic components.

**Narrative and the principle of causality**

Causality, the way that recipients interpret narrative events as relating to each other in sequences of causes and effects (Kafalenos 2006: viii), is the driving force of narrative. As Branigan characteristically declares: “If I were forced to use a single word to characterize a narrative organization of data, that word would be ‘causality’. Creating time and place in a narrative is not as important as constructing a possible logic for the events that occur” (1992: 216). The definition of narrative that he suggests is “a way of organizing spatial and temporal data into a cause-effect chain of events with a beginning, middle, and end that embodies a judgement about the nature of the events as well as demonstrates how it is possible to know, and hence to narrate, the events” (*ibid*: 3).

Causality is not only a matter of interpretation of narrative events; texts themselves prompt recipients to formulate various causal interpretations. The function of narrative causality presupposes diegetic and character-based action, and the changes brought by it. Literary theorist Didier Coste points out the association of narrative with “‘action’ or ‘making’, if not with causality” (1989: 42). Causality in narratives operates through agents—actors or ‘actants’—and the “functions” they perform. According to Mieke Bal, as long as stories are constructions made by humans, involving human characters and addressed to humans, they are based on “the presupposition that human thinking and action is directed
towards an aim” (1985: 26). Causal action is carried by agents and is most of the times oriented towards a goal. The association of causality with meaningful action is so widespread that many narratologists distinguish between narrative and other forms of texts in which causal connections through actions are not prevailing, for example descriptive passages. Narrative is a teleological construction, demanding a subject and its “will to execute his or her program” (Bal 1985: 33). Such ‘will’ provides the story with the necessary energy in order for it to unfold in time. As long as we think of agency in narratives as a goal-directed activity, it is difficult to detach it from cause and effect chains at the micro-diegetic level, that of characters’ actions.

Although characters are always causal agents, the actions that drive a narrative’s causality are not always character-driven. Bal distinguishes between actors and classes of actors (actants) and distinctive characters in narrative texts. The former two might also be inanimate and their role is structural (always related to the overall teleology of the fabula), while the latter correspond to human beings, and from the semiological point of view, they consist in semantic units (Bal 1985: 79). The actantial model was introduced in narrative theory by the Lithuanian-French semiotician Algirdas-Julien Greimas, who in turn borrowed the term ‘actant’ from the linguist Lucien Tesnière. Actants may be defined as “names of roles” (see Coste 1989: 135). The notion of actant, also becoming influential in social theory through “actor-network theory”, suggests a step beyond the micro-diegetic level, by adopting a transindividual perspective. It is also helpful in order to conceive of larger patterns of causality involved in narratives, although even this notion of actant does not escape some degree of anthropomorphism. For instance, among the examples of actants that Bal provides are “The old people”, “The Marxists”, etc. (see Bal 1985: 27).

What I would describe as two different kinds of causal analysis in narratives, namely the approach focusing on the micro-diegetic level of causality (actors) or the macro-diegetic level (actants) correspond to different models of narrative analysis. Particularly in film, these different models are summarized by Elsaesser in *Studying Contemporary American Film*. On the one hand “the Aristotelian model [by comparison to the structuralist model] seems to stress overall unity (of time, place, and action), rather than segmentation. It also centres on characters as initiating agents rather than on interpersonal transactions (functions) as the core elements of narrative” (1992: 30; emphasis mine). On the other hand, the *structuralist and poststructuralist model* of characters and causality is “functionalist and relations-based, essentially a-causal and instead more complexly ‘logical’ and ‘semantic’” (37). In this chapter, my goal is to introduce into the study of causality in narratives the complex systemic approach, which attempts to capture the emergent dynamics of form that stay outside the Aristotelian and the structuralist model of narrative analysis. These dynamics can be pictured
Causality and transformation

One classical narratological model that perhaps could be considered as proto-complex systemic (because of its emphasis upon dynamics, as I will discuss in more detail in chapter 6), is the one of narrative equilibrium, suggested—in 1960s France—by the Franco-Bulgarian philosopher Tzvetan Todorov, who also coined the term “narratology”. Todorov considered narrative causality a dynamic process tending towards equilibrium. For him, equilibrium seems to be a fundamental structuring principle of narrative:

The minimal complete plot consists in the passage from one equilibrium to another. An “ideal” narrative begins with a stable situation which is disturbed by some power or force. There results a state of disequilibrium; by the action of a force directed in the opposite direction, the equilibrium is re-established; the second equilibrium is similar to the first, but the two are never identical. (Todorov 1977: 111)

Thus, according to Todorov’s model, narrative is “a causal ‘transformation’ of a situation through five stages” (Branigan 1992: 4), or five fundamental “actions”: initial equilibrium, disruption of this equilibrium, recognition of disruption, repair of disruption, reinstatement of the initial equilibrium. Todorov here on the one hand follows a logic derived from Aristotelean poetics, and his division of drama in a number of specific acts/stages. On the other hand, Todorov’s contribution focuses on the structure of the form, thus it is more structuralist than Aristotle’s model in this respect. I would add that, due to Todorov’s addition of an element of dynamics in the study of narrative, his model stands closer not only to linguistic but also to physical systems.

The complete five-stage equilibrium model is an ideal case, as Todorov himself stresses, and he recognizes the existence of cases where the narrative does not do full circle but describes “only the passage from an equilibrium to a disequilibrium, and conversely” (1977: 118). Although the first two, or sometimes the last two stages might be omitted, suspending a ‘happy end’ or a satisfactory resolution, all narratives can be thought of as parts of the full five-stage circle (ibid: 39). In this respect, narrative teleological causality can be imagined as a trajectory towards equilibrium, even in cases when the latter is not finally achieved. The phase of equilibrium is considered by Todorov as static (and corresponds, at the grammatical level of predicates, to the role of adjectives), while disequilibrium is the dynamic phase, corresponding to verbs (ibid: 111, 120). However, if the above described “full circle”
constitutes the basis of the narrative model, then narrative dynamics is overarched by a symmetrical construction—defined by the initial and the concluding equilibrium. Indeed, as Branigan notes, both Todorov’s as well as Vladimir Propp’s classical narrative analyses are oriented towards the “large scale symmetries” of narratives (1992: 9), and, in this respect, deviate from the characterological focus of Aristotelian drama. These large-scale symmetries are not causal in the strict sense of the word, which implies a more or less direct relation between an effect and its cause (see Branigan 1992: 27). Moreover, their function is not to drive the action forward. They rather pertain to what Todorov calls transformations, referring to larger patterns of change that do not follow strict cause and effect sequences.

Todorov’s model has been associated with equilibrium, because of its emphasis upon symmetry. However, it seems that what really defines narrative for Todorov is change and disequilibrium. The latter is the necessary (and perhaps sufficient) condition for narrative to exist. I quote a characteristic passage from his article in Diacritics, where he analyzes Boccaccio’s Decameron III:

But what is it that makes this narrative? Let us return to the beginning of the story. Boccaccio first describes Naples, the setting of the action; then he presents the three protagonists; after which he tells us about Ricciardo’s love for Catella. Is this a narrative? Once again I think we can readily agree that it is not. The length of the text is not a deciding factor—only two paragraphs in Boccaccio’s tale—but we sense that, even if it were five times this length, things would not have changed. On the other hand, when Boccaccio says, “this was his state of mind when …” (and at least in French there is a tense change here from the imperfect to the aorist), the narrative is underway. The explanation seems simple: at the beginning we witness the description of a state; yet this is not sufficient for narrative, which requires the development of an action, i.e., change, difference. (Todorov 1971: 38)

What is not permitted to narrative, it seems, is the stasis of non-action. Change defines narrative, either at the micro-level of characterological action, or at the macro-level of “transformation”.

Narrative transformations might be ‘a-causal’ but they still evoke causality, although not in the sense of cause and effect sequence. Because of the emphasis upon change, I would argue that, even at the level of transformations, causality is still in place, but it is a sort of causality acquired through transformation. No matter where the transformative agency lies, in anthropomorphic actors (with their desires, goals and internal motives) or in actants (classes of actors), the overall patterns of change make a narrative causal, as long as they reveal its status as an organization that develops in time. Focusing on the specific case of multiple-character
“network” films, I will show how the multiplicity of actors is an important starting point in order to shift to a different model of causality, which combines but also transgresses the ones mentioned above.

**Causality in complex film narratives**

The group of complex films that I will discuss in more detail in the following part of the chapter are the films that have been characterized as “network narratives”. It is through this group of films, with which *Burn After Reading* shares many characteristics, that the issue of causality in the films of the complex narrative tendency has been raised. At the micro-level, causality in many complex films is distributed across an intricate network of characters. Beyond the level of individual actors though, the role of transcendental factors, such as chance and contingency, takes a central place in many of these films, making the overall causal patterns less anthropomorphic.

The feature that stands out and arguably defines the type of causality in complex network films is the increased—in relation to traditional Hollywood narratives—number of characters. Films with multiple characters and multiple stories have often been labeled “ensemble films”. In his taxonomy of the “Tarantino phenomenon”, as he calls the complex film tendency of the last two decades (since the mid-1990s), Charles-Ramírez Berg classifies recent films with multiple characters in the category of “polyphonic or ensemble plot”. According to him, “the majority of the alternative narrative films fall into this category, a variety of the multiple protagonist film” (2006: 15). From the perspective of my research, ensemble films form a significantly large sub-group of complex narrative films. Berg includes in the ensemble plot category films such as *Pulp Fiction* (Quentin Tarantino, 1994), *Magnolia* (Paul Thomas Anderson, 1999), *Code Inconnu* (Michael Haneke, 2000), *13 Conversations about One Thing* (Jill Sprecher, 2001), *Crash* (Paul Haggis, 2005), and others. Not all multiple-protagonist plots are ensemble plots, as Berg stresses, but only those in which there is no one single goal that unites the characters. Berg considers the polyphonic/ensemble plot as ideal “for portraying social cross-section” (2006: 18). Despite the absence of a “single goal”, in many of these stories the characters’ fates get entangled in “a single location”, which can be a hotel, apartment block, city etc.

Another plot category that Berg distinguishes, apart from that of ensemble plot, is of particular interest here. It is the category of the “hub and spoke” plot, which, although again involving multiple protagonists, Berg classifies under the broader group of “nonlinear plots”, shifting the focus from the number of protagonists to the issue of time and causality. In this category Berg includes, among others, the films by González Iñárritu *Amores Perros* and *21 Grams*, which have been used as examples of the complex narrative tendency by many.
theorists. In “hub and spoke” plots, as Berg notes, “multiple characters’ story lines intersect decisively at one time and space” (2006: 39). Cross-sections of characters in time and space are also key-features of ensemble plots, but what makes “hub and spoke” plots distinctive is their emphasis on chance events and contingency. According to Berg, these plots thematically [...] demonstrate the frailty of agency by presenting a world where happenstance prevails and best-laid plans come to naught. At a formal level, they question whether causality and characters’ choices, the bedrocks of Hollywood's classical narration and narration in general, are valid as narrative mainstreams particularly in contemporary dramas and romances. And because causality is foundational not just for movies but for life, particularly American life, the ideological implications of such challenges are seriously subversive. (2006: 40-41)

“Hub and spoke” plots problematize causality and experiment with non-causal connections between events. Both ensemble and “hub and spoke” plots have many similarities with Bordwell’s category of “network narratives”, which combines the multiplicity of characters with the role of chance that creates connections between them.

The category of network narratives has been suggested by Bordwell in order to describe the contemporary revival of multiple protagonist films. According to him, the format of network films “crystallized in the 1980s [with directors such as Robert Altman, Jean-Luc Godard and Otar Iosseliani being among the first who experimented with it] and was revivified in the 1990s” (Bordwell 2007: 245). Bordwell points out that network films contain an aggregation of characters that makes the plot more “complex” (2006: 96), as the intersections between them are not obvious from the beginning nor easily established through preexisting relations, and thus need to be built gradually, making use of various plot inventions. Because of the intersection of strangers involved in these films, Bordwell considers them expressions of the lay interpretation of network theory (as “six degrees of separation”) and products of the exchanges between network and chaos science and popular imagination. To explain his use of the term “network” in his description of contemporary “criss-crossers”, as the Variety magazine has labeled multi-character films, Bordwell refers to the sociological model of networks that was developed after the 1950s “small world” experiments of the social psychologist Stanley Milgram. According to this model, networks are composed by links between individuals, and, as Bordwell notes, “most network theorists define a link as a personal acquaintance” (2007: 198). Apart from this increasing awareness of social networks, other cultural factors, such as the rising internet literacy, contributed, according to Bordwell (2007: 197), to the wave that revived network narratives in the mid-1990s—with films such as Short Cuts (Robert Altman, 1993), 71 Fragments of a Chronology
of Chance (Michael Haneke, 1994), Chunking Express (Wong Kar-wai, 1994), and Pulp Fiction (Quentin Tarantino, 1994).

The network is composed “when strangers intersect”, and chance is what drives their intersections, no matter how goal-oriented their individual trajectories may be. In network narratives, Bordwell notes, “The plot structure […] must find ways to isolate or combine characters in compelling patterns that will replace the usual arc of goal-oriented activity. The principal source of these patterns […] is chance” (2007: 199). Coincidence that makes people meet (or even, kill each other, as in Burn After Reading), contingent events and encounters, circulating objects, accidents and internet friendships: does causality play any role in network narratives? And if yes, what forms does it take?

Bordwell uses the term “loose causality” in order to account for the lack of tight cause and effect sequences in network narratives, which seems to be, according to him, the distinctive characteristic of these films (he discusses in detail the films Nashville, Magnolia, Favoris de la Lune and Les Passagers). In network films, the characters’ lives, which are rather autonomous, eventually meet and separate not as a result of the characters’ purposeful actions but as an outcome of pure chance. A “car accident” is the typical plot invention used to bring characters together in network films, and Paul Haggis’ Crash (2004) drew this convention to the limit. This loose type of causality in network narratives does not preclude the expression of more traditional characterological causality in them, and Bordwell’s theorization allows for different degrees of causality to be at play in these films. All characters might have their own goals (for example in Crash, to which Bordwell refers, or in Burn After Reading discussed here), however this does not stop contingency from changing their lives in unpredictable ways.

Bordwell’s observation of ‘loose causality’ in contemporary complex films is valid, in the sense that many events in network narratives “just happen” and are not attributable to an “overarching causal project” (2007: 193). However, Bordwell does not elaborate on the characteristics of this loose causality, which is mostly negatively defined. Calling the causality of (a group of) complex films “loose” implies a pre-definition of causality as being tight. This form of ‘tight’ causality has been considered as characteristic of classical narrative cinema:

Events in the story are typically organized in a relationship of cause and effect, so that there is a logic whereby each event of the narrative is linked to the next. The classic narrative proceeds step-by-step in a more-or-less linear fashion, towards an apparently inevitable resolution. (Cook and Bernink 1999: 40)

This cause and effect logic in classical narrative cinema needs to be supported, on the one hand by temporal and spatial coherence (see Burch 1973), and on the other hand, by agents—
most of the times one central hero—presented as “fully rounded individuals” with well-developed personality and corresponding motivation. It is against this backdrop of tight characterological causality that the ‘loose causality’ of network films is defined. Bordwell’s evaluation of causality in network films is made using classical narrative and anthropomorphic standards—the latter in the sense of events caused by human actors and bringing forth other events as consequences of the previous actions. This is a definition of causality based on the Aristotelian model of drama—which is not to be confused, however, with Aristotle’s categories for natural causality.89

Characterizing the causality of network narratives as loose, Bordwell also comments upon the “tension between fate and chance” in them, and the slip of many into a “secular theology” (2007: 213, 214) or a “design that governs coincidences” (ibid: 232), through an apparent ‘worship’ of chance. Here Bordwell hints at a second (macro) level of causality in network films, the causal power of which, however, does not fit into the characterological conceptions of causality. Thus, network films problematize this type of causality with which narrative in classical cinema has been associated. However, the adjective ‘loose’ only applies to the case of characterological causality. Causality still remains tight on a different level, since fate and chance in many ‘network narratives’ become important sources of causality, which might be tighter, in terms of determinism, than the character-driven causality—even though less linear.

A form of causality based on the workings of destiny, even though not as anthropocentric as the tight actor-based causality, is in a sense ‘classical’ as well, as it has always been playing a significant role in the structure of drama. In his discussion of chance in network narratives as “God’s way of seeming anonymous” (2007: 214), Bordwell tends to substitute the determinism of events at the characterological micro-level, for the one at the macro-level of transcendental powers, and ultimately of (extra-diegetic) narration and plot construction. Warren Buckland’s discussion of the two plot lines involved in classic complex plots is instructive in this respect. As long as in network narratives chance tends to dissolve into fate, network films would not really differ from the ‘traditional’ sense of a plot’s complexity that dates back in Aristotelian Poetics. According to Buckland (2009: 2-3), the classical tragedy of Sophocles, Oedipus Rex, is an example of the plots that Aristotle considered as complex (peplegmena). In complex plots two different lines of causality are at play, the (micro-)causality of the characters’ actions, and the plot’s (macro-)causality, which enters through “reversal” (of “good fortunes”) and “recognition”, by the character and the viewer, of this reversal. This second plot line becomes influential both intra-diegetically (determining the character’s fate) and narrationally, making the plot more “complex”. Towards the final catharsis though, as Buckland stresses, the two plot lines tend to converge:
the complication (expressed through reversal and recognition) and its outcome gets finally integrated into the path predestined to the protagonist, diegetically through the power of fate and narrationally through the closure and wholeness that narrative construction demands. Thus, ‘everything happens for a reason’, even though this causal-logical sequence can only retrospectively be observed and established by the viewer/recipient.

Something similar seems to be happening both in the films that Bordwell discusses as forking path narratives (as Buckland points out), and in those he calls network narratives. For instance, in *Happenstance* that Bordwell discusses in his—explicitly Aristotelian—*Poetics of Cinema*, an impressive number of chance events such as a “discarded cookie”, a stolen coffeemaker and “a pebble thrown out of the window”, seem to be happening only to bring together two characters that were either way destined to be together. Here, too, the complexity of the plot ultimately boils down to the classic love-story resolution of traditional Hollywood films.

The discussion of this film in *Poetics of Cinema* is indicative of the way Bordwell appropriates and adopts network theory to (classical) film theory. Although up to a point he emphasizes the divergence of network narratives from classical narratives, especially through “loose causality” and the prevalence of chance, he tends to emphasize the “return to the customary path” of classic narration (2007: 242). In this respect, Bordwell’s discussion of complex films, either as “forking-path” or “network” narratives, stands closer to the Aristotelian definition of plot complexity, where the divergence from the main causal line gets finally integrated back to it, leading to the fulfillment of the hero’s destiny and to closure. Similarly, Bordwell’s application of network forms of complexity in film narrative theory tends to de-emphasize emergent dynamics and stress predestination.

In Bordwell’s theorization of network narratives, chance and contingency, key-notions in complex systems theories, appear succumbed to predestination. The chance events that proliferate in these films are interpreted as ultimately serving the overarching causal line of the plot, which intra-diegetically takes the form of destiny. That is why Bordwell and other commentators see a transcendental element in the prevalence of happenstance in complex films. The interference of chance as a transcendental factor makes the connections between characters appear almost “metaphysical”, tending towards a kind of totality (Silvey 2009).

Chance is a system of causation in its own right, considered as such especially since the end of Enlightenment, and works of contemporary narratology acknowledge its causal power (see Richardson 1997: 15, 20, 62). In literary works as old as Aphra Behn’s *The Lucky Chance* (1686), which literary theorist Brian Richardson refers to, but also in the ‘network narratives’ of contemporary complex films, chance is a *cause*, but at the same time it disrupts *causality* in the sense of one-to-one relationships between events as causes and effects. A
chance event might start a chain of causality but itself cannot be explained as the result of a pre-existing cause. It thus becomes hard to establish any chain of causality when there is, not just one, but a proliferation of chance events within a text. The central role that network films ascribe to contingency can now be highlighted in its tension with the type of causality that defines narrative.

Many complex films develop around the effects of chance events. However, here the effects do not correspond to their causes by logical necessity, neither are they exclusive. The same contingent event may have entirely different outcomes, and this is something that network films stress. The multiplicity of characters in these films is particularly functional in illustrating the complex effects of chance. For instance, in the film Code Inconnu, the same contingent event, a pastry bag discarded by one character, affects the lives of all other characters, but has very dissimilar outcomes depending on which character it affects. Chance has an organizing power that interacts with the pre-existing organization of the world upon which it exerts its influence. But this is different from claiming that coincidence is governed by a design, and that it ultimately succumbs to this design.

But to what extent is causality in complex films non-traditional, one may ask, since traditional narratives have also been sparing a place for loose causality? Seymour Chatman differentiated between causality and its looser form, which he called contingency, borrowing the term from philosopher Jean Pouillon:

In traditional narratives, the internal or story logic entails the additional principle of causality (event $a$ causes $b$, $b$ causes $c$, and so on) or, more weakly, what might be called “contingency” ($a$ does not directly cause $b$, nor does $b$ cause $c$, but they all work together to evoke a certain situation of state of affairs $x$). (Chatman 1990: 9)

Contingency blurs the initial causes of events, thus, even though to some extent contained in traditional narratives, becomes much more pervasive in the non-traditional ones, such as Robbe-Grillet’s—paradigmatically non-linear for literary theory—texts. Thus, as Chatman notes: “The idea of contingency is attractively broad, for it can accommodate new organizing principles” (1990: 47). These new organizing principles become in contemporary complex films, as I argue in this dissertation, much more pervasive than before, questioning the primacy of the traditional organizing principles of narrative.

**From heaps to systems**

Network narratives, as I already pointed out, include a multiplicity of characters, who are given almost equal merit of the narrative time and agency. By focusing only on the number
of characters, however, the adjective “network” does not offer us more information than the older label of “ensemble” or “multi-character” narrative, a common trope in other media products as well, such as TV soap operas. A network is not a sum of individuals; it is a system as long as links connecting the individual nodes organize them into one collective organization. It is the entanglement of the units that makes a network—and a network film—complex.

Bordwell refers to network narratives in cinema as “catalogues” (2007: 212), because the separate stories they contain (through the different characters) stay for the most part of these films discrete, and actually function, in the mind of the viewer, as ‘alternatives’ according to some common criterion. I will address this aspect in the last part of this thesis, but for now I would like to expand on the function of the catalogue. Emphasizing the catalogue-like form of complex films Bordwell seems to bringing them closer, in my view, to the “categorical form” of films, which in his book with Kristin Thompson Film Art (first edition 1979) he described as “nonnarrative”. However, in his theorization of network narratives Bordwell soon demonstrates how even though resembling catalogues, network films easily succumb to the principles of narrative organization. It is a fact that complex films create story worlds, and thus they are not so radically ‘anti-narrative’ like the documentaries that use the categorical form, to which Bordwell and Thompson refer. However, my contention is that complex films use this non-narrative form, which Bordwell and Thompson compare with a catalogue, in order to organize into systems that do not necessarily become narrative.

A catalogue is not a system but a list of elements; a system needs relations between the elements in order to form itself. I would argue that one of the ways through which network films become meaningful—and communicate with the viewer—is the experience of the process through which a catalogue or a heap (a “summative complex”, according to systems philosopher Ervin Laszlo) becomes a system (a “constitutive complex”). The absolute disentanglement of elements that a heap suggests would abolish a film’s communicative potential. As Laszlo points out: “If subsystem communication is reduced to zero, the whole system has zero level of organization; i.e. we are dealing with a limiting case in which the whole system ceases to be a system and becomes a heap of independent components” (Laszlo 1972: 250). Thus, in systems theory, it is the communication between elements, or system components, that makes a system (a constitutive complex) distinct from a heap (a summative complex): “the more two or more components communicate, the more information they pass to one another, and thus the more they determine each other” (ibid). In network films, the flow of information and communication increases gradually, as the separate agents and story components are linked to each other and begin to create a collective organization. In the previous chapter, I stressed the way in which the characters of Burn After Reading function as
informational vessels, passing on the information they receive (the CD being a diegetic metaphor for information), without cognitively processing and understanding it. But through the connections and interactions between characters/agents—who are at the same time basic diegetic components—that such handling of information entails, the diegetic information gradually transforms into systemic information at the extra-diegetic, ‘formal’ level of the film. Thus the film becomes a constitutive complex. The complex systemic framework allows us to see the diegetic interactions as primarily informational and secondarily anthropomorphic/characterological. Moreover, it shows how the structure that these interactions create at the formal level of the film is not closed and symmetrical but open and nonlinear. Thus, instead of concluding that network films ultimately become classical narratives, as Bordwell would have them, I would argue that they lead to organizations that are different from narrative.

The degree of components’ codependency in network films increases because of the greater spatial disparity of information across different agents and plot threads, as none of these individual pieces composing the narrative is omniscient. The relative lack of information makes the connectivity and communication between units necessary, and through the increase of connectivity the units may form a system. At the textual level of complex films, the codependency of both characterological and structural (agents/actions) elements increases through interconnections, and creates the causality of the filmic text in a different way than the one implied by the classical conception of narrative and its particular type of causality. Complex causality may be better conceived as a cumulative, nonlinear and emergent effect, rather than as an event-sequence of causes and effects (or ‘focused causal chains’).

Complex network films display a multi-directional and multi-level causality that can be seen as the product of a feedback circuit that connects in the same network the agencies of different actors/actants across the different diegetic levels. At the intra-diegetic level, a complex film brings together and ‘interlocks’—through parallelism or crosscutting—separate agents/actors, and along with them, separate parts of the film’s text that correspond to each character’s perspective upon the diegetic world and function within it. It is not just the number of characters but the connections between them—and how they are effectuated—that become prevalent. What brings the actors together (intra-diegetically) might be chance, but the result of their interactions cannot be attributed to chance alone; rather, it is the emergent product of their relations. Moreover, chance itself is caused by relations, as contingency seems to be triggering further contingency. The proliferation of chance events in a film is incompatible with narrative causality, because chance cannot be easily attributed to a cause; but it can be attributed to the synergy of many causes and causal agents, which may bring unexpected consequences. Causality is similarly acquired at the structural, extra-diegetic level of
‘ensemble’ complex films, as their multiple actors autonomously participate in the generation of the dynamics that drive the plot forward in a nonlinear way.

Network films derive their dynamics from the connections, on the one hand between a multiplicity of autonomous agents, and on the other hand, between different diegetic levels that these relations produce. Thus, from the micro-level of actors we move to the meso-level of their complex constellations, and the macro-level of system dynamics (the level of transformation in Todorov’s model). An “agent-based” approach to film narrative analysis, following the logic of agent-based methodologies used in simulations of complex systems, would allow for a unidirectional feedback circuit to be established between the different narrational levels. The micro-diegetic level of characters and actions gives way, through complication of relations and nonlinear causality, to aggregates of agency at the meso-level. Mutual causal processes take place across levels. On the one hand, higher-level “medium-agents”, who are the result of (or, in simulations, who are introduced as models of) the aggregates of individual units/micro-agents, feed back upon the micro-agents; this can be seen in network films such as *Burn After Reading*, where, from a point on, all actors are affected by the connections created between them, which influence both their individual trajectories as characters and the plot’s structure. The meso-level of interconnections introduces constraints to the micro-level, but at the same time contributes to the overall transformation, taking place at the extra-diegetic macro-level, of the text into an organization that acquires a causality of its own. Narration, however, may not introduce the medium agents, as simulation does. These agents emerge from the aggregate agency of micro-actors. Narration takes place through the interplay of macro and micro-level, but does not directly address the meso-level of aggregate micro-agency. Causality in complex films takes place across all three levels and is differentiated, by means of its emergent properties, both from the character-based ‘behavioristic’ causality and from the one of totalizing and deterministic structures, either intra or extra-diegetic.

**Towards an emergent conception of causality in network films**

Recent approaches to networks as complex systems are more interested in their dynamic properties (see Barrat, Barthélémy and Vespignani 2008). It is not only the shape and spatial distribution of connectivity, but also the actual workings of it and the way a network self-organizes and develops as a dynamic system that attracts the attention of network scientists. Causality cannot be bracketed out from accounts on how a network system comes to being and evolves out of the separate elements/nodes that compose it. A network is not caused by the individual actions of the elements that compose it neither by a single transcendental and overarching cause; it rather emerges as an organization of a multiplicity of agencies and their
complex relations. This organization acquires a causality that is not anthropomorphic but systemic, and which, through a feedback process, in turn influences the units that now participate in the collective organization. Thus, I would argue that in complex films such as those containing networks of characters, it is not just that “contingency replaces causality” (Bordwell 2007: 204), but rather, a different form of network causality is created, which couples with contingency rather than excludes it. Every complex system evolves in a constant exchange with contingency, and achieves its organization through the interplay between contingency and structure.

Moving towards an understanding of the complex causal workings in network films, an updated conception of networks as complex systems would be required. Everett seems to be pointing at the framework of complex systems theory and particularly chaos and network theory as more adequate in the theoretical approach of films such as *Free Radicals* (Albert, 2003), *Run Lola Run* (Tykwer, 1999), *Code Unknown* (Haneke, 2000), *Amélie* (Jeunet, 2001), and *Intermission* (Crowley, 2003)—films that she prefers to call fractal. As Everett notes:

> What is new about today’s understanding of networks, and what makes it impossible to approach them with simple linear graphs (in mathematics or physics) or with straightforward linear narratives (in films or novels), is the recognition of their essential complexity. Complexity is characterized by variety, heterogeneity, and the fact that the various elements in a compound behave in random and different ways. Networks are complex systems because they exist by interacting; and they are dynamic because they evolve and change in time, driven by the random activities or decisions of their very components […]. (Everett 2005: 162)

In agreement with Everett, I do not find that the complexity of ensemble/network films, based on the interactions and relations between their components, as well as on their evolvement in time, has been addressed, let alone sufficiently explored. Thus the question that I attempt to answer in Part 2, taking into consideration the theorization of network films summarized in this chapter, is how the complexity of these filmic texts and the dynamic flow of information in them generates causality. I think that a shift of theoretical and methodological framework, from narratology to complex systems theory, is necessary in order to gain insight into the issues of causality involved in multi-agent, network films. Causality works differently in complex networks. It does not suggest just a complication of linear cause and effect arrows; rather, it is an emergent procedure. The systems theory of complex networks offers useful tools in order to think of how the organizing principle of causality, the cornerstone of narrative, is succumbed to a ‘new organizing principle’, which in complex systems theory is emergence. Networks are dynamic complex systems that acquire causality as they emerge out
of the links between units. In the following chapter I will focus on the workings of causality through emergence.