Parasites and Self-Organization
Or is Self-Organization Researchable?

Hugo Letiche
University of Humanistics, Utrecht

ABSTRACT
On a theoretical level, complexity theory offers an emergence-based insight into organizing. The unicity of events, the undetermined nature of creative change, and the multifarious nature of circumstances are all honored. But how can (successful or unsuccessful) self-organizing be studied? If organizing really can be self-organizing, how could a researcher perceive it? Either the observer is entirely outside of the change process and is unmoved or unaltered by it --- i.e. only able to see the change from its exterior; or the observer changes with the change process and is part and parcel of it. If one is inside the change, how can one observe it; and if one is outside, how could one experience it? If self-organization really can occur, how could *self-organization organize organization* without betraying emergence and becoming just another form of control? To examine these issues a case is presented and then interpreted with use of a perspective inspired by (some aspects of) Luhmann, and via Luhmann, Serres (Luhmann, 1997, 2003; Serres, 1982).

Key words: self-organization, noise, communication, parasite, Luhmann, Serres.

Introduction

Luhmann was the sociologist of autopoiesis --- that is, of the principle of a self-producing or self-constructing social universe (Mingers, 2002). To translate this assertion to organization: organizations organize organization. What is the product of organizing? --- Organization. What do organizations do? --- they organize. Thus organizing and organization form a closed system. Organization as noun, and organizing as a verb, are a self-referencing pair --- each refers to the other, exists in terms of the other and recursively (endlessly) leads from itself to the other. Traditional metaphysics breaks the tautology by asserting some external first cause --- i.e. organizations exist to produce the 'good life', a 'just society', or welfare and democracy (Luhmann, 1997). A 'first cause' is posited to exist outside of the organizing/organization principle(s) and it determines organizational purpose, identity and logic. But confidence in the external 'first cause' has disappeared. Organizations are not thought to exist for some sort of ethical or teleological purpose --- they seem to have their own momentum, energy and power. Few observers really feel confident, that organizations' will-to-exist is subservient to the human-will. The radical humanism that assumes that social structures follow human needs, desires, and purposes, has lost its grip on most researchers' thinking. Organizations are not mere extensions of our human wills or products of our rationality. Organization appears to exist on its own terms, often irrespective of human desire and even acting destructively on the human sensibility. Herein, the assertion is made that the logic of organization and its technological rationality threatens the very existence of the lifeworld and of human subjectivity.

Hernes and Bakken have proposed a typology of organizational thought contrasting mainstream management studies to the social constructivism of process thinking and to the self-referentiality of self-organization (Hernes & Bakken, 2003). They classify organizational studies into three (epistemological) categories: (i) equilibrium-based, (ii) process-based, and (iii) recursivity-based. Equilibrium-based theory is essentially Newtonian in its

tone: existence is made up of static entities that only move when pushed to do so. Organizations are assumed, thus, to respond --- that is to adapt --- to forces in their (business) environments. The organization's form is, in effect, a response to its commercial or stakeholder surroundings. The organization is understood in terms of its resource dependency, strategic positioning, and as a solution to the dilemmas of transaction costs. Research is called upon to center on regularities or correlations between entities. It is assumed that the crux to organization is something that is fixed and that its form is its essence --- change is subservient to identity. The practical goal of organizational studies is to permit organizations to 'succeed' --- which mostly means to persist and be profitable. The 'goal' of organization is not questioned critically --- the institutional sustainability of organization is defined in stockholder and managerial terms.

The process-based approach stresses the processes of organizing and how mutual interaction via sense-making is necessary to embedded activity. People make organizations --- their assumptions, routines and habits are the basis to organized existence. Processes of organizing create ordered interaction(s), which are called organization. Organizing requires enacted common norms --- it is a process of social agreement, consensus and interrelationship. Equilibrium-based organizational studies prioritizes the closed system --- organization is understood in terms of cause and effect relationships where one can know the cause, the effect and the relationship. Process analysis of organizing assumes a more open systems approach, wherein results are semi-indeterminate and relationships contain an element of unpredictability. Organizing is a social interactive process --- organizations are socially constructed artifacts. Organizing assumes the priority of the subject --- subjects organize; organizations are products of the subject's activity. Because we select what we see; we see what we select. Organizing is a practical form of applied hermeneutics. Via organizing, the individuals

constitute the organization. While the dynamic aspect of organizing is captured in this approach, it does not do justice to the partial closure, often characteristic to organizations. Organizations are not just conversations or social psychological activities --- they possess elements of structure and permanence.

The recursive-based approach, stresses how organizations distinguish themselves from their surroundings. An organization is a boundary --- it is a form of structuration wherein there is an inside and an outside. Organization is a process of defining limits, frontiers and identities. What is inside the boundary is the organization, and what is outside is external to it. Via communication, or all sorts of exchanges of material, thought, ideas and words, the distinction between inside and outside is created. Organizing is the process of co-defining the boundaries; organization is what is defined as within, in relationship to what has been defined as without. Boundaries are defined from the inside --- closure is self-referential. Only from within the organization can the within of the organization be defined. Organizations are boundary maintaining systems --- what is inside the boundary is the organization. Organizations need closure, to be coherent enough to be able to act --- activity in the environment requires closure to be able to marshal resources and to make organized order effective.

The key assumption to Luhmann-ian self-organization is that human consciousness, social order and physical reality, belong to different ontological levels. What exists on the one aggregation level is different from what exists on the other. Human consciousness has a different structuration from that of organization(s). The process logic of sense-making may apply to the shared world of thought, consciousness and perception, but organization is another universe. How organizations operate and what organizations do often follows a different logic from that of sense-making, consciousness or human self-

awareness. Organizations produce organization --- a logic of social order and economic activity, which is self-referential. Organizations follow their own rationality, for which to some degree the mindset of individual consciousness is irrelevant. Organizations produce unplanned, out-of-control, emergence --- products and services, technologies and innovations, follow their own logics that are only (very) partially seen, understood, not to say controlled by human consciousness. Organizations form apart systems, with their own goals, events and scripts.

If organizations develop their own lives and are to a significant degree self-referencing, then one needs to understand what encourages/discourages, fosters/thwarts and facilitates/destroys their activity. How do organizations flourish and/or die? The assertion is that it is not just a matter of being in the right place at the right moment (organizational ecology), or of having the right (creative) convictions (competencies); but that it is a matter of how the system is or is not able to define itself coherently, powerfully and innovative-ly. But if organization is the subject of organization, does that mean that organizations do not answer to human subjectivity, priorities or ethics? And would this mean that consciousness cannot follow organizing or organization? Is knowledge of events of organizing and/or organization possible and of any pragmatic value? To help explore these questions, first a case will be presented and then analysis of it undertaken in terms of (Luhmann's and Serres') complexity concepts.

The Case

CO(M)POSITIONING™ is an avant-garde design bureau in southern France. It is housed in a beautifully restored mediaeval farmhouse just outside of a major French city. CO(M)POSITIONING claims to be able to co-position organizations. CO(M)POSITIONING supposedly differentiates itself by how it communicates with its clients, and how it produces communication with which those clients can communicate successfully with their (business) environments. CO(M)POSITIONING sees itself as a composing organization --- that is, one that produces new sounds or melodies, encompassing and furthering clients' identities and purposes. CO(M)POSITIONING clams to be self-organizing --- creativity cannot be planned or produced on-demand. Communication, which deeply effects the other's feelings, convictions and behavior, 'just comes together'. It cannot be controlled --- controlled communication is always weak, half-hearted and mere repetition. Communication that mobilizes creativity and action has to be spontaneous, to-the-point and uniquely appropriate to a circumstance. CO(M)POSITIONING, is all about events of communication --- moments wherein the communicative emerges. Images, words and ideas can be prepared, as potential communication materials --- but communication is a mutual interactive event, which takes place in the present. CO(M)POSITIONING sets the stage for communication; it can pre-structure a field of interaction and has insight into the pre-requisites for communication; but communication is always a specific and unique event.

CO(M)POSITIONING also has a cynical side --- internally staff members refer to the 'compost-itioning' of their clients --- that is, the reducing of their identity to excrement. And the cynical side has been getting stronger, as communication events seem to be getting more and more predictable. CO(M)POSITIONING has decided to renew itself via a major creative experiment. The decision was taken, to strive to create new (branding) practices via an experimental program called *Opusculum*. The word really means 'a small work' --- but has quickly been identified with 'opus magnum' or a 'great work' And while 'sculum' sounds like 'school' --- it actually etymologically has nothing to do with it. The goal of Opusculum was to create a new culture of creativity for CO(M)POSITIONING whereby innovative

design would reassert itself as self-organizing. It was felt that the creative staff was not generating enough energy, and that the senior designers were acting too much like managers. In Opusculum, design teams with five members each were formed, with the assignment to create something apart and new, with the help of outsiders. The idea was that new networks were needed, to create new activities; and that relationships with outsiders were needed, to generate new groupings, relationships and identities. Each Opusculum-group undertook a different project --- some aimed at producing new service concepts, some focussed on alternative political arrangements, and some were dedicated to experimental image creation. Each group worked together with outside experts. So-called 'Opuspace' was to be created --- that is, space for projects and the pace needed for change. Opuspace was scheduled two days per month, with all the groups both working with external consultants on their projects and taking part in an interim presentation of one project.

The finale of the CO(M)POSITIONING projects was scheduled for a weekend in May. All the groups would come together and create Opusculum --- the activity of making something new, important and valuable. It was agreed that a multimedia reportage of the weekend, including consultant and group results, would result. Process and product, ideology and culture of Opuspace would be documented. Supposedly, Opusculum had prepared all the groups to innovate --- they should have found a voice of their own, an individual style of working, and have renewed their creative energy. But when all eight groups came together on the appointed Friday morning, they just looked rather blankly at one another and seemed unable to create anything. A meeting ensued wherein the weekend's goals were endlessly discussed, but nothing happened. The eight groups then split up into three clusters, along the lines of the cleavages between the groups dedicated to defining new services, championing political engagement, and those focussing on creative visual design. Friday morning

degenerated into an endless meeting; Friday afternoon was characterized by criticism of the one group by the other. Differences did not produce creativity and energy, but suspicion and stagnation. The more paralyzed the Opusculum groups became, the more they cried for leadership from the outside consultants, who were present. But when the consultants said anything, they were told they did not understand, that they were not helpful, and that they should keep silent.

Opusculum failed. It did not create a new creativity-culture wherein CO(M)POSITIONING reaffirmed its event driven identity. Instead of affirming the creative power of communication, Opusculum left CO(M)POSITIONING full of recriminations, insecurities and with a feeling of failure.

A (Luhmannian) Analysis

Hernes and Bakken (see above) understand Luhmann in epistemological terms, in the tradition of Gareth Morgan's *Images of Organization* (Morgan, 1986). Hereby, I believe, the radicalism of Luhmann's contribution is lost. Luhmann is not proposing just another way of looking at organization(s); he is making a statement about organizational ontology (Poli, 2001; Letiche, 2004). Complexity theory asserts that change and innovation occur via the not to be anticipated emergence of new aspects, characteristics and identities, as change moves across aggregation levels. For instance, when one goes beyond biochemistry and arrives at life, or transcends simple stimulus/response reactions to achieve consciousness, fundamental shifts in the aggregation level of complexity are realized. The biological or physical aggregation levels continue to exist, but a new distinct aggregation level of life or consciousness emerges. Luhmann makes use in his reflections of three fundamental aggregation levels: the physical, social and psychological. Each has its own ontology or way of being. His primary emphasis is on the social --- wherein events, decisions and communication, are the key concepts. The social is not determined by the physical ---

that is, the logic of physics; nor by consciousness --- that is, the logic of personal phenomenal awareness and of introspective reflection. According to Luhmann, consciousness produces the 'noise' --- that is, the non-routine, deep questions and innovations that trigger the emergence of new (changing) social order. Physical qualities or material existence are (almost) always employed in social activity. But the social is characterized by its own logic and form of existence.

In CO(M)POSITIONING the leadership felt that their communicative system(s) were no longer innovative, which led them to instigate the project Opusculum. Much as in Luhmann's 1988 (trans. 2003) article, I identify the logic of organization with the logic of the social. And thus, I need to identify what in that logic forms conceptually the key characteristics of organization, and how do organizations (re-)create themselves. Luhmann posits that organizations are self-producing or self-constructing --- there is no 'first principle' of rationality, determining organizational existence. Traditional business studies assumes either that rational actors create organizations to achieve predefined goals, or that organizations inherently strive for rational ends. The discourses of optimization, of aims and means, of relative yield superiority, and of formal hierarchies, are all derived from the premise of rationality (Luhmann, 2003, p. 31-32). But organizations do not really operate as extensions of rationality or any other form of consciousness. They are constituted as social events --- that is, they are made up of actions, activities or decisions that are self-generating. There is no ideological or philosophical supersystem, nor material subsystem, that determines organizational behavior (Luhmann, 1997, p 73).

Organizations are the pattern or order, at once that they produce and that produces them. Organization is, in this sense, radically recursive --- organizational behavior is at once based on routines, patterns and decisions that have already taken place, and

it is a constant process of establishing and strengthening shared habits, actions and choices. Organization is based on what it creates. Organizations create patterns and order, and are created via patterning and ordering. The cause is the effect, and the effect is the cause. Organization does "not transform inputs into outputs, instead it transforms *itself* into *itself* … the outputs of the system, that which it produces, are its own internal components, and the inputs it uses are again its own components. … It is thus in a continual dynamic state of self-production" (Mingers, 2002, p 280). Thus, organization produces the prerequisites to its own continued existence --- organization produces and sustains organization. If organization fails to produce the prerequisites to its continued existence, it breaks down and (at least in part) disintegrates. While organization produces organization --- the actual components of the system can, and do change. The organization is what persists --- not the persons, materials, routines or objects. Thus, the organization is identified with its functional differentiation.

In the past, organizations were segmentally differentiated --- that is, they existed in terms of the time and space they occupied. Stratification was long seen to be the crucial characteristic of organization --- that is, how organizations differentiated persons and groups hierarchically, in terms of a center and periphery, or labor and management. Injustice, exploitation and suppression, formed the rhetoric of stratification. But Luhmann asserts that organizations have increasingly become incommensurable --- that is, they exist in different functional subsystems, with little or no contact with one another. In such a segmented society, one sector can flourish as another languishes; one activity enthralls some and disgusts others; and one business paradigm succeeds for one organization and fails for others (Andersen, 2003). With increased globalization, functional differentiation includes so many places and times, so many organizations and events, that no overview is possible. Organizations exist

side-by-side without any contact with one another. No one and nothing is in control of all the differentiation. There is no center that judicates. Increasing commercialization and market orientation produces organizations that do not answer to a greater collectivity or to a sense of moral obligation. Diversity and functional differentiation prevail. Demands are made for decent average standards of living for all --- but there is little or no sign of their realization. Luhmann asserts that the social or ethical problem is not that organizations are exploitive or a guilty of repression, but that organizations operate on the basis of inclusion and exclusion.

If we look at the huge masses of starving people, deprived of all necessities for a decent human life. Without access to any of the function systems, or if we consider all the human bodies, struggling to survive the next day, neither 'exploitation' nor 'suppression' - terms that refer again to stratification --- are adequate descriptions. It is only by habit and by ideological distortion that we use these terms. But there is nothing to exploit in the favelas; nor are there, at the higher levels of society, actors dominant groups that use their power to suppress these people. (There are of course individuals, families or groups, which, like everyone else, use their networks to their own advantage.) 'Exploitation' and 'suppression' are outdated mythologies, negative utopias suggesting an easy way out of this situation, e.g. by 'revolution'. The predominant relation is no longer a hierarchical one, but one of inclusion and exclusion; and this relates not to stratification but to functional differentiation. (Luhmann, 1997, p 70)

Organization is characterized by operational closure --- organizations do what they purportedly are supposed to do. They draw in whomever they need, and exclude whoever is irrelevant. They are defined in terms of their functional operations. Organizational internal differentiation favors some and excludes others. No one is in a position to determine if organizational distinctions and complexity do or do not produce better life-conditions for human beings. In a polycentric polycontextual society, no totalization is capable of summing up 'what it all means.' Organizational subsets all go their own way, defending their own closure (operations) as best they can. Organization is a process of risk, contingency and turbulent evolution, without a predictable outcome.

Organization, according to Luhmann, is made up of events, decisions and communication; and all of these are quite close to being the same thing. Organizations define their functionality via their own activity --- tasks are delineated, competencies developed and ways of working demarcated. This all amounts to boundary setting --- organizations operate within self-set boundaries. And contemporary organizations are complicated --- Shell, for instance, includes everything from chemical research to public relations, and financial expertise to process engineering (Andersen, 2003). Each organization demarcates its boundaries --- that is, the polyphonic dimensions of action that fall within the organization and the numerous activities that do not. Companies not only produce employment and wealth; they also produce exclusion and poverty. From within the organization, the other side or the outside of the boundary cannot be reached --- the organization is the context of its own activities and actions. Everything that happens inside is within the organization --- organizations are communications systems that operate within their own boundaries. Organizations are inherently operationally closed --- the organization is made up of the activity it organizes, understands, produces and acknowledges. Organizations exist just as long as they retain their boundaries --- though these boundaries can shift and evolve, include networks and ad hocracy, be fluid and emergent. Everything that happens within organizational boundaries Luhmann calls 'communication'.

Communication is not conceived of here in a sender/receiver/information model,

but as a recursive process that generates, sustains and furthers the creation of order. Organizations are recursive in the sense that they exist only in so far as they position activity within their boundaries --- thus organizations exist insofar as they have already set their organizational boundaries. If the boundaries are not 'already-there', there is no organization. Organizations are networks, through time, of communications --- that is, boundaries defined in terms of tasks and goals, processes and products, obligations and responsibilities. Communications are events --- specific moments of interaction, organizing and structuration. Organizational events can exist because past communication has made them discernable, given them legitimacy and continues to facilitate their action. Communication conveys distinctions and pre-structures, which can be selected amongst the possibilities --- when communication is enacted or realized it creates events (Mingers, 2002). Thus, organization produces events --- that is, communication that can be acknowledged and is actionable. Organizations exist in terms of their communication --- that is, the systems or boundaries that they define, sustain and depend upon. There are almost always physical processes --- everything from buildings, to factory production --- related to organizations; but 'organization-ness' is defined in terms of communication and events. The one company's buildings can look just like another's, the chemical factory of the one concern can be exactly the same as that of the other ---- what characterizes the organization as organization, is its communication. Communication entails what is decided and conveyed, reported and examined, interpreted and planned. Luhmann's communication resembles Weick's double interact --- that is, it includes information, utterance, understanding and the acknowledgement (acceptance or rejection) of meaning (Weick, 1979, 2000). Luhmann dubs the acceptance and/or rejection of meaning, 'decision'. In this sense, organization exists in so far as decisions occur. Organization thus is socially agreed to, collectively embedded, and functionally structured, meaning. Communication is a bounded hermeneutic --- a circle of statements and responses, of languaging and meaning, of the One and the Other. Communication is not the same thing as individual consciousness; it is social or a structure of social meaning. The interaction of communication involves, at a minimum, two persons. Communication involves constructed and shared meaning --- it is not ontologically on the same level as is physical existence. Thus, communication exists on a different aggregation level both to consciousness and to physical reality, though it in no way excludes these other levels. There is consciousness and physical reality, in organizations; but the organization exists and is defined in terms of communication. What is particular about organization, does not exist on the level of individual consciousness or physical reality.

In terms of these ideas, what happened in CO(M)POSITIONING's project Opusculum? Luhmann asserts that if organizational meaning creation becomes too tightly bounded, that the level of redundancy becomes nonfunctional (Luhmann, 2003). Organizations need to contain the possibility of becoming different --- that is, to be able to change and shift their boundaries. If there is too much redundancy, everything then means the same thing and there is only one omnipresent 'meaning'. In such an organization, there is no innovation or conflict, change or creativity. The organizational boundaries are so tight, that they let in no new, or different, consciousness. The organization is functionally closed and rigid. CO(M)POSITIONING's top staff felt that their organization was too self-enclosed. There was not enough contingency --- there were no 'differences that made a difference'. Opusclum was initiated to try to shake up the organization. CO(M)POSITIONING had come to be characterized by recursively enclosing modes of operation --- it could only produce more of the same. Opusclum was supposed to be an irritation, a disturbance, or a noise. When organization is closed in on itself, it lets

no (new) consciousness in. No variety, creativity or difference can become operational. From a consulting perspective, can one and is it ethical to force an organization to take alternative ideas into account? And from a research perspective, how can one deal with the difference in kind between the organizational closure of the to be researched, and the necessary research commitment to questioning, doubting and even falsifying? Are researcher and the researched compatible? And if self-organizing closure is self-destructive --- and the lack of innovative communication is the death of the organization --- does the researcher have a responsibility to intercede strengthening living consciousness and interaction? In part, this is a confrontation on the organizational aggregation level, with the likes of the Heisenberg paradox --- is the object the same when researched or does the research process actually change it? (Heisenberg, 1977) But in this context, the ethics of the situation call for the object of research to be changed, if it is to survive. In the Luhmannian perspective, organizations like CO(M)POSITIONING have to expand in variety, by encouraging dissimilar response, to be sustainable. The problem is that organization tends to develop towards increased redundancy --- that is, to more tight, institutionalized, rationalized, and formal order. Organization tends to reject noise and to embrace control, efficiency and order. But if one wants the structural complexity of the system to increase, one needs irritants, difference and change. Opusclum was supposed to achieve all this. Opusclum was not meant to change the organization's structure --- it was meant to shake-up its operations and functions. The goal was to achieve altered communication --- change was intended to occur in what people expected of one another, how they went about doing their work, and the criteria used for judging task success and completion. Functionality is what counts, not organizational structure. The boundaries set around tasks and responsibilities, expectations and results, define the organization, not its formal structure.

Organizational change is about functionality. But as described in the case, none of this occurred. When the penultimate Opusclum event was organized, CO(M)POSITIONING's past redundancy prevailed. Staff communicated in terms of set patterns, avoided noise and difference; event was normalized in terms of past rationality. A culture of innovation did not exist --- prior redundancy had successfully encapsulated the change initiative.

Could anything else have happened? Accepting the Luhmannian analysis, entails acknowledging the enormous power of organization. Organization has functionally separated itself from physical reality and consciousness, gaining very powerful boundaries, protecting it from its environment. Physical or technological change can take place without forcing the organization to redefine it self; changes in ideas, cultures and beliefs can occur, without making a big difference to the organization. The ontological independence of organization has made it more powerful. Organization has become a social order unto itself, capable of defending its functionality, no matter what people feel and think. Thus for consultants or change agents, organizational change is no mean task. In Opusclum, the consultants entrusted their project to a strategy of noise, irritation and differentiation. If the various work groups all developed communication of their own, there would supposedly have been enough differentiation to destabilize current redundancy. But organization always includes functional differentiation --- the project groups were interpreted as if they were just another dimension of an already existing functional differentiation. Hereby, they produced no noise, but just more complication. Work processes can be very complicated, without being complex. Within the preset organizational order, there can be very extensive functional differentiation, without the differences disturbing one another, or ever becoming a 'difference that makes a difference'. Complication does not necessarily complexify anything. In complexification, there is emergence --- new

and unexpected communication leading to organizational change. But in Opusclum, there was no complexification. How the subgroups interpreted their task, never challenged their communication. They never searched for meaning, got lost in the unknown, or took-on unexpected challenges. In the subgroups --- on the level of communication --- nothing really happened. The change agents were very fashionable and hip --- they professed to postmodernism and/or to Deleuzian generativity. But they did not shift CO(M)POSITIONING out of its mode of communication. Their own universe of consciousness never connected generatively with CO(M)POSITIONING's. The change agents were hermetically enclosed in their own assumptions. They set the tasks and facilitated the subgroups, supposedly leaving them to self-organize. Change agents either must attempt the paradox of creating anti-organization, to bring consciousness and renewal to the target organization; and/or they need to create new patterns of communication to change the recursive self-identity of their object of activity. Either way --- from the outside-in or the inside-out --- the goal is changed communication. But many consultants do not really try to change the organization at all. Luhmann makes it clear that the self-organizing function of organization is not dynamic, creative and change directed; but rather encloses organization in bounded structures of communication and operation. If one's purpose is to study organizational renewal, creativity and innovation --- as in the CO(M)POSITIONING case --- the goal is in Luhmannian terms counterintuitive; organization works to a functionally closed, stable and recursive agenda.

Luhmann / Serres - Parasite, Knowledge and Change

If organization is characterized by self-enclosing boundaries, operationalized in communication, how can we critically know, observe or change organization? Critical knowing is an act of consciousness and Luhmann asserts that organization belongs to another ontological universe. Communication in Luhmann is defined in terms of the 'communicator' and the 'communicated to' --- that is, in terms of a dyad. How the 'communicated to' reacts to what the communicator conveys, is important. It defines judgement or meaning. But there are only two actants in the model --- an initiator of communication and a receiver of communication. This is a logic without a third. The 'communicator' initiates the communication, which defines the 'communicated to' in her/his role. There is no outside to communication --- communication pins the actants to their roles. Communication bifurcates in communicator / communicated to; meaning accepted / meaning rejected; and defines the boundary of what is inside and outside of the system. Thus organizations create organizing, which creates organization --- there are only two poles to the logic, that of organization and that of organizing. As long as there is no third, there is no observer, no outsider and no judgement. And there is no researcher or change agent. Researchers and change agents are a 'third' --- or even 'fourth' or 'fifth' --- to the system(s) they interact with. To be a change agent or researcher, one has to be able to be an active outsider, or (in effect) an outside insider. Luhmann observes that this is a paradoxical position. Can one react in theory and/or in practice, to the dilemma of CO(M)POSITIONING and its change agent(s) --- can anything be done to reduce redundancy and to increase difference? Or does an all engulfing logic of organizational redundancy, or of the *duplicata,* suck everything into its maelstrom? Luhmann tries to escape self-organization's self-destructive systemic drive to lower levels of vitality and doxa via Michel Serres's concept of the parasite (Luhmann, 2003; Serres, 1982). I propose to follow the same path.

Luhmann introduces the parasite or irritation as the principle of difference. Without parasites or irritants, there is only repetition --- that is, more of the same, produced via the recursivity of closed systems. Parasites produce difference --- they are a principle of

change, innovation and creativity. Serres focuses on relationships between the various meanings (in French) of the word 'parasite'; that is, (i) an organism which lives on or in another organism, (ii) the frequenting of the tables of the rich, earning one's welcome by being well spoken, and (iii) noise or interference in a channel --- i.e. static in a system. Serres explores relationships and interactions of the parasitical on the biological, social and informational levels. He does so with use of parables from La Fontaine, especially "Le Rat de ville et le rat de champs" and "La Tortue et les deux canards." The fables function as Serres' 'images of organization' (Morgan, 1986). In Serres' handling of both fables, all three dimensions of parasitism are explored in relationship to one another. In "The Town Rat and the Country Rat," the town rat invites his country guest to dine on all sorts of delicacies (found on the kitchen floor) and not found in the farmhouse. The meal is interrupted by a loud clamoring on the door, temporarily frightening the rats away. The country rat decides that a fearless but perhaps modest existence is to be preferred to the dangers and fright of the city and determines to return home. Parasitism is displayed on the biological level by how the rats feed themselves, on the social level in the terms of their relationship(s), and on the informational level as the conflict between noise and order.

Biological parasitism is universal --- the one organism is the host, food, environment and/or support of the other. Organisms live in, on, and around, other organisms. For mammals, the principle of one organism being the host for the other begins with the mother's milk. Existence entails making use of what is --- life draws energy in from the nature about it --- it parasites its surroundings. Life eats from the table of the other --- everything from scavenging to agriculture, entail one order taking from another. It may be accepted that the rat cleans up what falls on the floor from the table, but not that it raids the refrigerator. And the farmer (according to Serres) can better accept a hare in his vegetable garden, than

practice the terror needed to achieve absolute exclusion. There is an ethics of tolerance --- that is, a limited acceptance of the give and take of independence/dependence, use/being used, producing/consuming. Amongst people, narrative plays a key role in parasitism. Parasites may be flatterers, but they are good storytellers. Parasites do not 'produce' anything; they earn their keep as communicator(s). In exchange traders, shopkeepers and bankers, are the parasites. They produce nothing, but pocket part of the proceedings. But without the translation, of the one's goods into the other's purchase --- the one's spiel into the other's acceptance --- there is no transaction. The social, depends on an intermediary bringing the parties together and leading them to an accord. Neither pure production nor consumption can exist without an intermediary who permits them to define themselves in relationship to one another. But in terms of production, these intermediaries are parasites. But without the social function --- the stories, narratives and negotiations, there would be no transaction. Trust and agreement, rules and reason, order and security are all talked into existence. The one and the other --- the first and the second --- can produce and consume, and buy and sell, only as long as the third talks the necessary relationship into existence. The third is responsible for the needed overview and insight, history and identity, ownership and rules --- the parasite arranges, orders and structures. The first and second are atomic --- monads of productive existence. The third represents and creates relationship(s). The parasite, or third factor, establishes the process of connection between the dyadic poles of firstness and secondness.

Serres' analysis of communication is grounded in his analysis of noise. In his reading of the fables, noise plays a key role. It divides the rats --- the one rat accepts an exchange of noise or aggression, alarm and dissonance to achieve richness; and the other rat does not. Noise is the "heterogeneous" --- it communicates pain,

chaos, sinisterness, fear and excess. Noise is not the normal and rational, the optimal and functional. In ordered existence, there is music --- that is, sound where the impure is excluded and the melodic and harmonic prevail. Such order is created via exclusion. First there is white noise and then there is exclusion, which makes communication possible. The originatory white noise contains all frequencies; it is the sound produced by combining all sounds together. The term 'white' is a metaphor referring to white light, which is made up of all the different colors (frequencies) of light combined together. White noise:

> … refers to states of aggression, alarm and tension and to powerful sound phenomena in nature such as storm, thunder and the roaring sea. It is worth noting in particular that the word 'noise' comes from the Greek nausea referring not only to the roaring sea, but also to seasickness, and that the German *Geräusch* is derived from rauschen (the sough of the wind), related to Rausch (ecstasy, intoxication), thus pointing towards some of the aesthetic, bodily effects of noise…. (Sangild, 2002, p 4)

The noise of the sea or of a jet airplane approximates white noise --- it drowns out every particular sound. It can be compared to twenty thousand tones, all played at the same time. In such a din, one cannot pick out any single sound --- for instance, the voice of an individual person. In ordered communication, there is very little noise ---- noise is excluded. But if there is no noise, static or interference, there will be no change. On the one hand, there is noise and chaos; but on the other, there is the 'always already' or the (endless) repetition of recursivity. Without noise there is fixed identity and the unchanging repetition of death.

We are surrounded by noise. And this noise is inextinguishable. It is outside - it is the world itself --- and it is inside, produced by our living body. We are in the noises of the world, we cannot close our door to their reception, and we evolve, rolling in this incalculable swell. We are hot, burning, with life; and the hearths of this temporary ecstasy send out a truceless tumult from their innumerable functions. If these sources are stilled, death is there in the form of flat waves. Flat for recording, flat for closed ears. In the beginning is the noise; the noise never stops. It is our appreciation of chaos, our apprehension of disorder, our only link to the scattered distribution of things. Hearing is our heroic opening to trouble and diffusion; other receptors assure us of order or, if they no longer give or receive, close immediately. None assure us that we are surrounded by fluctuation and that we are full of fluctuation. And it chases us from chaos; by the horror it inspires in us, it brings us back and calls us to order. (Serres, 1982, p126)

Noise destroys and horrifies; but regulated sound and harmony verge on a death principle. Organization, life, and intelligent thought, are phenomena existing in the space between order and noise --- that is, between disorder and too much structure. In closed systems of stimulus/response or cause and effect, there is (next to) no in-between. Only the included middle or the third factor lives with difference, incompleteness and indeterminacy. The third represents choice --- if there is stability or disarray, emptiness or pandemonium --- neither the one nor the other has anything to choose. Only from the perspective of the third, outside the either / or's, or the dyadic polarities, is there choice.

The difference between commun-ication and noise is one of focus --- systems overvalue structure, control and order. They focus on the message and do not hear the static. Systems are characterized by principles of exclusion --- difference, disharmony and chaos, are eliminated. From within the system, there is only sense-making, purpose and meaning; from outside the system, there is disarray, turmoil and indeterminacy. The inside is defined by the absence of noise --- from the inside, one only hears orderly, cared-for and suitable messages. The principles that divide the

inside from the outside, split organizational existence into the meaning(ful) versus noise. Organizations exist by excluding alternatives; they push the noise outside of their boundaries. But only if noise can re-enter the system or organization from the outside, can doxa, repetition and entropy be avoided. Noise is a parasite that eats away at order, but if order is not to rigidify and/or reify and become non-adaptive, the parasite is necessary. Communication prompts ever more communication; but the messages will only be capable of conveying something new, or of having something to irreplaceable say, i.e. be different from what has already been said --- if communication has remained in contact with noise.

In Serres' reading of 'The Tortoise and the Two Ducks', the ducks define the first and second factors --- each communicates, works and plays, its role in its habitat. The tortoise is the third --- it is the joker --- that is, the change agent, the source of surprise, and the element of transformation. The tortoise wants to escape, its safe but monotonous home. The two ducks tell the tortoise to hold onto a stick and that they will fly it to a new habitat. But the tortoise makes the mistake while in flight, to answer the people's comments from the ground, letting loose of the stick and falling to its death. The first and second factors are what they are --- they have no ambition, do not attempt change and are locked into their recursive identities. The third communicates --- it is the source of the unexpected, of change and of renewal. But when the third answers the crowd --- when it tries to state its own identity and to come up for itself, it destroys itself. In a smoothly operating system, there is no outside; no exterior position interferes with the operating of the system. Perfectly operating systems produce no knowledge. There is no noise challenging them to reflection, innovation and change. Their knowledge ideal is de facto entropic --- the perfect equilibrium of optimal operations, with no unpredictable de-pendencies, no out-of-control energy sources, and no unsteerable dynamism. Knowledge --- as in, to be acquainted, familiar

or conversant with the Other --- requires proximity and distance. Distinguishing between the Other and the rest requires immediacy; doing justice to the Other's otherness demands enough separation. Luhmannian communication (dis-)organizes everything in sight with little respect for individuality or identity. Unicity depends on the noise in the in-between maintaining the distance between the one and the other, the 'I' and the 'me', the self and the other, the now and the then. In communication, all these differentiations collapse into an on going, self-organizing systematic. Noise insures that the organization can be seen from an outsider's position. Noise creates distance, difference and indeterminacy --- it is what holds consciousness and the objects of consciousness, apart. In communication, the one collapses into the other --- communication produces synergy, operational closure and optimal performance. Consciousness depends to exist on the play of foreground and background, the comparison of similarities and differences, and experimentation with change. Consciousness introduces noise or the external perspective to whatever it engages with.

Systems have no need of knowledge to operate optimally. Knowledge destabilizes systems --- it creates an 'excess'. In pure relationship --- i.e. the system in optimal operation --- there is no static, no exterior, no interference. When the tortoise opens its mouth, it tries to define its situation to the observers, and it tries to create knowledge. This interferes with the operation of the system. Pure operations occur in nonknowlegde --- knowledge examines events from an external position. Knowledge is always 'third' - it is never inside the (operational) system. If there is an intermediary, there is an external position looking in on the system, and parasitism's possibilities for speech, knowing and voice. But the success of parasitism can depend on not making the negotiation, or the processes of interrelationship or the mediation, visible. Facilitating the relationship without disappearing into it requires distance --- the

catalyst differs from the catalyzed. In perfect communication the relationship or dyad is absorbed in (total) identification. Noise, between the one and the other, allows differentiation to be maintained and sustains the dyad as dyad. And only the joker or third factor can see or know that noise. Systems that absorb their elements in pure communication become self-enclosed 'monads'. Elements with processes and relationships or noise in-between, remain triads.

There is an obvious conservative reading to the duck and tortoise fable --- do not try to change one's status, be satisfied with one's lot. But there is a communication reading as well. Change requires relationship, which entails difference. In change, relationship and process are prioritized above identity and self-assertion. Change requires that the joker or the third factor remains parasitic. Consciousness is a process of relationship(s), operating from the noise side of the identity - nonidentity, inside - outside, and self - other boundaries. If knowledge identifies itself with the operational system - that is, in effect tries to take on the first or second role(s) --- it destroys itself. The two ducks represent nature as a closed-identity and as systemic stasis --- the tortoise tries to make nature do something new. As long as the tortoise is willing to parasitize nature, it can fly. As soon as it asserts its own identity --- that is, abandons the role of the parasite - it fails. Parasitism is both radically dependent, and has far-reaching possibilities. Parasitism's creativity functions in relationship to pre-existing structures of communication --- that is, it requires speakers and listeners, messages and meanings, speech and response. The parasite nestles itself in the in-between and operates via its relations to activity and communication.

Can Organization Be Studied?

In Serres' ontology, first there is chaos and disorder, and then there is order and organization. Order eliminates noise in communication, just as agriculture excludes weeds and culture eliminates outsiders. History and knowledge are thought of as processes of exclusion --- history is the ability to forget almost everything, and knowledge defines nearly everything irrelevant. Luhmann's ontology centers on increasing evolutionary complexification, wherein organization, via ever more radical systemic differentiation, comes more and more to stand on its own. Organizational systems self-organize via recursive patterns of communication that order and structure production and consumption, science and technology, labor and welfare. For both Luhmann and Serres, all organizational research is de facto action research because when research comes into contact with organization, it taints, irritates, changes or influences organization. But this inevitability of action-research is very different from the traditional (Lewin) concept. Action research is not chosen by the researcher, it is an epistemological result of research's ontological difference from its objects of research. A-R (action research) is not born of the assertion that one can best learn to know an organization by trying to change it, but by research's inability to not change or upset what it researches. Research consciousness is on the side of noise; organizations, to be researched, are on the side of communication. Traffic across the boarder, creates disequilibrium, tension and irritants.

The CO(M)POSITIONING case raises many issues concerning parasitism. The change agents were parasites --- their role defined in terms of the designers. If the consultants did nothing, or did not play their role successfully, there was no Opusclum. The parasites are intermediaries. If they tell the designers what to do, they stop being jokers or process intermediaries, and become bosses. If they choose for knowledge, and claim to know what is to be done, they become entirely exterior or alienated from the system. If they identify with the system, they have no role --- they then disappear into the self-organizing process(es). Parasites cannot become insiders or outsiders, without loosing

their identities. Parasites remain a source of noise for the communication process(es), with which any system self-creates. By keeping the self-organizing generative process (a bit) out of balance, parasites insure that communication continues and does not settle into entropy. But can the parasites fulfill this function, while observing themselves and the system all at the same time? In Serres' terms --- can one be a successful guest in regards to one's host, and fruitfully observe the process all at once? If not, living organizations cannot be studied. If organization is so imprisoned in its recursivity that its self-organization leads to entropy and self-destruction, then its repetition, doxa and death, are all that can be observed. But if self-organization can incorporate the joker and remain attune to the creative force of noise, then communication as organizing, and organization as complexifying, and consciousness as a source of creativity, can be studied. It would be a very ironic conclusion that only non-adaptive and dying organizations can be studied.

Parasites insert difference --- they introduce noise or irritants into self-organization. Serres argues that parasitism is inherent to all communication --- only if there is noise in the message can doxa, repetition and entropy be escaped. Otherwise, communication looses its energy and the self-organization is slowed down to a crawl. Noise is at the heart of complexity --- it provides the energy insuring that communication continues. But Luhmann's self-organization does not have as strong a base in complexity theory as does Serre's. In Serre's terms, Luhmann describes self-organizing systems of communication leading to entropy. That is precisely what the project Opusculum did. From the Luhmannian perspective, CO(M)POSITIONING was a self-organizing system wherein contemporary functional differentiation had brought the organization to be ontologically distinct from nature or consciousness. For Serres, noise is a first principle of nature as well as of communication --- despite the differences

between the aggregation levels. Where Serres sees relationships - however complex --- Luhmann sees disparateness. For Serres, organizations can be studied, albeit from a parasitical position. Researchers introduce noise into the system by assuming the outsider's position. Researchers have to ingratiate themselves on the system in order to do their work. Though the system probably will not and cannot acknowledge it, good researchers provide just enough noise, that the systems studied become more alive thanks to the relationship. For Luhmann, parasitism creates difference and difference destabilizes communication, but to little or no positive avail. Parasites add options and exploit the decision space, multiplying metalevel or process alternatives. In the CO(M)POSITIONING's case, the consultants were parasites --- they multiplied the discussion without aiding the communication. The competencies CO(M)POSITIONING requires were not added or strengthened. CO(M)POSITIONING's ability to create and innovate --- the core of its self-organizing activity, was not helped. For Luhmann, parasitism leads faster to an irrelevant multiplication of complexity, than to the strengthening of the communication events at the core of the self-organizing.

I am in relationship to the CO(M)POSITIONING's case a parasite. The case is based on organizational change projects that were related to me by the change agents. I was the host for the stories. I tried to introduce enough noise into the narratives that the change agents / researchers would doubt the ability of the organization to self-organize without noise. Most of the change agents did not want to acknowledge Serres' multi-leveled analysis. In Serres, natural, social and information analysis, are in a complex and complementary relationship to one another. The relationships between the ontological levels sustain activity, change and knowing. In Luhmann, organization is ontologically disengaged from all the other levels and seems to operate separately. Parasitism between and across aggregation levels, does not take effect in

Luhmann. The lack of complexity makes the researcher's and change agent's consciousness irrelevant to the organizational process. In Luhmann, individual consciousness is outside the organizing process; in Serres consciousness is outside organizing but inside the noise that influences (perhaps indirectly) organizing. In Serres, the link is not assured, but it is at issue. It is hard to say that qua Serres one can or cannot study organizations --- one can study complex relationships of noise and structure, interdependence and rupture. Luhmann believed in the independence of social organization, and of how organizations organize organization. Serres' natural philosophy is far more dynamic than Luhmann's. Serres links noise and consciousness in a generative way, which grants insight into social or organizational complexification. Luhmann describes a nearly hermetically closed process of self-organization that dis-empowers the change agent and/or researcher. In the CO(M)POSITIONING's case, the change agents needed to bring enough noise to the communication or structuration process, that the designers would become more energized. A living process of organizing, worth studying, might have resulted. Then, consciousness --- or research --- could have been welcomed instead of shunned. The recursivity of CO(M)POSITIONING retained its initial closure; voices from outside its boundaries remained taboo. The system could not acknowledge researchers without betraying its closed self-organizing principles. Thus, the change agents as researchers were excluded. While this process can be understood via Luhmann, it is in Serres' perspective self-destructive. In parasitism, interaction with organization, consciousness in relationship to organization, and change in relationship to research, gain a self-organizing potential. Organizations require such parasitical researchers.

References

Andersen, N Å (2003) "Polyphonic Organizations" in T Bakken & T Hernes eds *Autopoietic Organization Theory* Copenhagen: Copenhagen Business School Press pp 151-182.

Brown, S D (2000) "Michel Serres: Myth, Mediation and the Logic of the Parasite" (manuscript)

--- (2001) "Parasite Logic" paper for *Cultures of Information 2* Keele University UK, November 25.

--- (2002) 'Michel Serres: Science, translation and the logic of the parasite' *Theory, Culture & Society* pp 1- 27.

Heisenberg, W (1977) "Remarks on the origin of the relations of uncertainty" in *The Uncertainty Principle and the Foundation of Quantum Mechanics* ed W C Price & S C Chissick London: J Wiley 1977 p. 8.

Hernes, T & T Bakken (2003) "Implications of Self-Reference: Niklas Luhmann's Autopoiesis and organizational theory" *Organization Studies* vol 24 no 9 pp 1511-1535.

Letiche, H (2004) "Trust: Particularity & Individuality" paper presented to Management Faculty Seminar Essex University, 26 February.

Mingers, J (2002) "Can social systems be autopoietic? Assessing Luhmann's social theory" *The Sociological Review.*

Morgan, G (1986) Images of organization London: Sage.

Poli, R (2001) The Basic Problem of the Theory of Levels of Reality" *Axiomathes* vol 12 pp 261-283.

Luhmann, N (1997) "Globalization or World Society: How to conceive of modern society?" *International Review of Sociology* vol 7, no 1, March, pp 67-80.

--- (2003) "Organization" in T Bakken & T Hernes eds *Autopoietic Organization Theory* Copenhagen: Copenhagen Business School Press pp 31-52

(trans. 1988 "Organisation" in W K_pper & G_nther Ortmann eds. *Mikropolitik: Macht und Spiele in Organisation* Westdeutscher Verlag pp 165-185).

Sangild, T (2002) *The Aesthetics of Noise* Copenhagen: Datanom.

Serres, M (1982) *The Parasite* Baltimore: John Hopkins Press (trans. from *Le parasite* Paris: Grasset, 1980).

Weick, K (1979) *The Social Psychology of Organizing* (2nd ed.) New York: McGraw-Hill

--- (2000) *Making Sense of Organization* New York: Blackwell.