Murmurations: Journal of Transformative Systemic Practice

Becoming a posthuman systemic nomad. Part II: Systemic Nomads. An Ecosophy

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Volume 3
Issue 2
Spring 2021

Keywords:
posthuman, systemic, transformation, cartography, nomads, ecosophy, family therapy, new materialism

Citation Link

Abstract

In the second part of the text "Becoming a posthuman systemic nomad", I suggest ways in which systemic practitioners may become systemic nomads, reintegrating cybernetics and social constructionism and taking a new-materialist perspective on life. Systemic therapists may become "post human systemic nomads", navigating and systemically learning in complex adaptive systems, in which we are relational responsible to all human and non-human actors in the networks that we produce and that we are produced by. Inspired by the philosophy of Deleuze and Guattari I made three cartographies for us, systemic nomads, navigating complexity in multi-actor systems. Systemic practitioners (from a new-materialist perspective) can co-create better ecological worlds if we are conscious of the effects of our actions in interdependent relationships with all actors in life, when – as nomads – we display systemic sensibility or intelligence (Senge, 2006) within systems of multi-actors.

Abstract (Dutch)

In dit tweede deel van de tekst "Becoming a posthuman systemic nomad" beschrijf ik hoe systeemtherapeuten en consulenten "systemische nomaden" kunnen worden door in hun denken en doen inspiraties uit de cybernetica, het sociaal constructionisme en het nieuw-materialisme te integreren. Systeemtherapeuten en 'systemisch' consulenten, die "systemische nomaden" worden, navigeren en leren navigeren in complex adaptieve multi-actor systemen. Zij ervaren een 'relationele verantwoordelijkheid' naar zowel humane als niet-humane (dingen, dieren, planten) actoren in de netwerken waartoe zij betekenisvol bijdragen, waarvan zij om betekenisvol voort te bestaan afhankelijk zijn. "Systemische nomaden", bewust van de inter-afhankelijkheid tussen alle humane en niet-humane deelnemers in het multi-actor netwerk, kunnen mogelijk bijdragen in de co-creatie van betere ecologisch afgestemde leefwerelden. Geïnspireerd door de filosofie van Deleuze en Guattari maakte ik drie cartografieën die ons in dit proces van navigeren en leren navigeren kunnen helpen.

Introduction

To know has become to live, to live has become to know

(Maturana, 1982, p. 18)

We live in a complex, globalized word and many of us experience feelings of deep uncertainty, and a crisis of trustworthiness. I witness a "conservative revolution" with the focus on separateness, sameness and control: through practices of exclusion, protection, creating borders and building walls. I wonder how a "systemic evolution" would look like, with a focus on connection, difference and flow: through practices of inclusion, intra-action, trust and relational responsibility. Can we imagine an ecological response on globalisation and complexity? What difference can systemic practitioners make, a difference that makes a difference, that matters (Bateson, 1979)? In this article I intend to describe and develop systemic, ecological responses towards complexity in a globalised world. The article is divided in two parts. Part 1 "Truth and Trust" was published in Murmurations, vol. 2, 2019. This text "Systemic Nomads" is the second part of the article.

The first part *"Truth and Trust"* (van Hennik, 2019) was about building trust rather than truth. I reflected on the question how to produce accountable trustworthiness in a process of systemic learning in complex systems. Systemic learning, a transformation of living together, starts when the actual consequences of an action strategy do not correspond to the expected consequences (Visser, 2007). Systemic practitioners and participants in the network produce "validity from within", creating coherent explanations that are compatible with culture and community, sometimes comfortable, other times uncomfortable, in such a manner as to open up new ways of living together differently?

This second part of this Systemic Nomads text is about how to navigate complexity in multi-actor networks. I suggest ways in which systemic practitioners may become systemic nomads, reintegrating cybernetics and social constructionism and taking a new-materialist perspective on life. Systemic therapists may become systemic nomads, navigating and systemically learning in complex adaptive systems, in which we are relational responsible to all human and non-human actors in the networks that we produce and that we are produced by. In this article I will link systemic nomadism to my daily practice as systemic therapist, consultant and researcher.

Living together, differently

We sleepwalk into a global ecological crisis and therefore we need to develop new ways of living together differently. Everything is connected, within interactions in our complex, globalised world. Still many of us experience detachment, disconnection. Neighbours can't tell each other's name. Consumers don't know where their supermarket food really comes from, or where electronic waste ends up. They feel disconnected from the people that make their clothes, from the animals we share our living space with, from the earth that provides home to all actors present.

We navigate complexity in a world determined by technology, biology, and ethics. Many companies try to patent food, **like broccoli,** and seeds. With the development of high-tech implants humans become cyborgs. We are able to modify genetic codes and ask ourselves if we want to design "perfect" babies. Transformation in a complex system is the emergent result of interactions between its components and its environment. We can't predict and control inter-action between al multi-actors

in a complex system. We can anticipate, improvise and learn how to learn. Because of the ecological crisis we are in, it is important to learn how we learn to navigate complexity. So, let's become *systemic nomads*, re-integrating cybernetics and social construction, adopting a new-materialist account in life, navigating complexity in the multi-actor networks we participate in.

Case example (1): collaborative learning communities.

As a systemic practitioner I give consultancy in complex child mental healthcare cases that got stuck. Together with professionals, clients, family members and other parties concerned we form a collaborative learning community (Van Hennik & Hillewaere, 2017). We include (for example) neighbours, best friends, teachers, artists, gardeners, pets and stuffed animals in the community. Participants share responsibilities achieving their goals. They learn, through feedback, how to become an effective team, to collaborate in ways that will benefit all members as well as the community as a whole.

Systemic learning

> Problems are solved, not by giving new information, but by arranging what we have always known.
>
> (Wittgenstein, 1953, aphorism 109)

What is a system?

A system is a "unity of differences" (Guattari, 1995). A living system unifies unrelated parts, without totalizing them. Guattari (1995) speaks of the *chaosmos*. A living system needs both sufficient order and sufficient disorder in order to remain an identifiable and flexible entity, interconnected and open to change. A system is a "fixed (enough) arrangement of components, or factors, with stable (enough) capacities that in the right sort of stable (enough) environment (medium) will, with repeated operation, give rise to the kind of regular behaviour that we represent in our scientific laws" (Cartwright, 1999, p. 50). "Fixed enough" is important here. Not all components are equally coupled, nor do all serve the system's repeated operations within the specific environment.

Cybernetics, responding to criticism of its mechanical metaphors, developed instead a socio-cybernetic approach (Luhmann, 1984) to describe events in complex adaptive social systems. In the physical world, systems are governed by the laws of nature. In the social domain, behaviour is governed by rules generated by the social system itself. These internal rules generate the relationships and cultural boundaries in the network, the response space.

"Each social system, a political party, a business organisation, a city, or a school – is characterized by the need to sustain itself in a stable but dynamic mode, permitting new members, materials, or ideas to enter the structure and become part of the system. These newly entered elements will generally be transformed by the internal organization (i.e. the rules) of the system" (Capra & Luisi, 2014, p. 137).

A system co-evolves within the niche of its medium (that is, the range of environmental conditions). System and niche change together congruently and spontaneously. Together they conserve and

develop patterned ways of relational becoming. The system, organism interacts with the medium in a "cognitive" way (Maturana & Varela, 1980). The organism "knows" how to respond and co-create an environment within the medium that permits its actualisation (Capra & Luisi, 2014). A spider creates a web, depending on its environment, between branches and in the wind – a web that permits its existence. Social systems develop patterned ways of becoming in relation to other systems and within a self-referential context of meaning that permits their actualization and existence.

Autopoiesis, structural determinism and coupling

Living systems are self-organising, autopoietic, and yet strictly dependent on their environment (Maturana & Varela, 1987). Systems co-evolve within the niche of their medium and co-adapt in an unpredictable spontaneous interaction. To survive, the system maintains balance (equilibrium) and transforms (creating disequilibrium) in response to unpredictable environmental conditions. The chances of evolution are increased where a system develops a wider variety of adaptive responses – response-abilities.

The system's structure (its reservoir of response-abilities) determines how it will behave. Take the game of billiards, for instance. It is the structure of the ball, rather than a cause and effect relationship, that determines what may happen in the game (Dell, 1985). Bateson (1972) illustrates structural determinism by using the example of the different chain of events that occurs when we kick a dog, compared to when we kick a stone. The difference in response depends on their structures, and structures together define the interaction between them. Cats greet each other by making nose-to-nose contact. Dogs greet each other by sniffing each other's behinds. When cats meet dogs, they often run in circles. A spontaneous, playful new interaction emerges.

Structure is not static. Reservoirs of response-abilities undergo transformation through intra-action (Barad, 2007) in a process of coupling and decoupling (Maturana & Varela, 1978) between systems. A "coupling" is the fit between co-adapting systems in changing conditions. It is a match that has consequences for both the system and its medium. The various matches that may exist between a human body, oxygen, food, and poison are all very different and are dependent on the structures involved. Falling in love is a process with consequences that are entirely different from the process of getting an infection (Kleinherenbrink, 2017).

Structurally determined systems change in the process of co-adapting, coupling and decoupling, in the co-creation of new configurations, newly-composed unities of different components. Neither nature nor culture generates life. Life emerges when systems collide, decouple, couple and generate new systems, configurations, multi-actor networks, cultures. Every meeting, collision, crash between systems in multi-actor networks provides a construction moment (Kleinherenbrink, 2017) for their structures, reservoir of response-abilities and productive opportunities.

1. Collisions happen one moment at a time in the "here and now".
2. Response-abilities are the results of couplings and de-couplings that have taken place in the past.
3. With the production of a new configuration or system we shape a future.

Knowing how to respond

To know has become to live, to live has become to know

(Maturana, 1982, p. 18)

Maturana posits that living systems are cognitive systems. They know how to respond in the world. A stone knows how to respond to its environment. My cat knows how to respond when she needs my attention because she is hungry. A wild animal knows how to respond in more different ways than a stone or a domestic animal. Systemic learning occurs in the process of responding to unforeseen conditions or events.

> A cognitive system is a system whose organization defines a domain of interactions in which it can act with relevance to the maintenance of itself, and the process of cognition is the actual (inductive) acting or behaving in this domain. Living systems are cognitive systems, and living as a process is a process of cognition. This statement is valid for all organisms, with and without a nervous system..
>
> (Maturana and Varela, 1980, p. 13)

According to Pearce (2008), the difference in systemic know-how between non-living, living, and human systems is a difference in the way they coordinate their actions and manage their meaning. Pearce illustrates the difference by comparing grains of sand, a pack of wolves, and interacting human beings.

1. Grains of sand respond to gravity and other grains if you drop them on top of each other. They form a pile in an orderly shape. There is no autopoiesis, no self-repair. When the pile is out of balance it will fall.
2. A pack of wolves will coordinate its interactions. There is autopoiesis and self-repair in the pack. Any wolf that challenges the existing power relations will be killed or disciplined – or alternatively it will emerge the winner, receive support, and thus change the structure of the pack.
3. Human beings coordinate their interactions and manage meaning. There is autopoiesis, self-repair and the construction of meaning. Like wolves, human beings challenge their place in the social order, but unlike wolves, they belong to more than one social order and (also unlike wolves) they redefine meaning. If children fight, each may tell their mother “he started it”.

Systemic know-how or intelligence depends on the richness of the variety of response-abilities and productive opportunities within a response space. Learning is the result of adaptation to unpredictable conditions or events in the spontaneous interaction between and within systems in the medium.

Systemic learning

> Personal change evolves spontaneously from inside and one can never know what it will be or how it will be or when it will happen
>
> (Andersen, 1991, p. 66)

Systemic learning (developing and conserving ways of living) happens in a spontaneous interaction (Maturana & Verden-Zoller, 2008) between response-able systems within a response space (a space that permits, limits, and validates ways of living). We expand our reservoir of response-abilities and response spaces when we open up a zone of unforeseen connections (Deleuze, 1990), respond to and reflect on what surprises us.

Improvisation

Systemic learning, a transformation of living together, starts when the actual consequences of an action strategy do not correspond to the expected consequences (Visser, 2007). At these unique moments of discrepancy, we learn – provided we are able to creatively respond and reorganise ourselves in a "fitting" manner to what spontaneously occurs.

Improvisation has been defined or described as "the art of adjusting, flexibly adapting, learning through trial-and-error initiatives, inventing ad hoc responses, discovering as you go" (Barrett, 2012, p. 12), an embodied performance of self-readiness (Goldmann, 2010), and a risk-taking activity. Shotter (2007) discusses readiness and risk-taking in therapy in his article "Tom Andersen's way of being Tom Andersen".

> He had a composure that manifested a readiness – after a pause, after a moment of "inner dialogue" – to respond in a "fitting" manner to whatever might happen. But to live like that, to live in that moment of risk and uncertainty, to live with the fear of having to act, yet not knowing whether your action will be "fitting" or not, being able to trust that if it wasn't, then others will help out, requires, I now think, a special kind of way … that I think we need constantly to remind ourselves of.
>
> (Shotter, 2007, p. 19)

A systemic therapist improvises, and invites family members to improvise, at moments at which they have previously tended to get stuck in repetitive patterns and fixations. We escape from these patterns and fixations if we co-create a "zone for unforeseen connections" and allow for some randomness and disorder in our interactions.

Opening up zones of unforeseen connections

Systems learn in the spontaneous interaction between and within systems in the medium. Maturana argues, for example, that our ancestors did not develop language intentionally. Language was not necessary to survival, but rather resulted from a spontaneous, structurally-determined "natural evolutionary drift" (Maturana & Varela, 1990).

> Moreover, we maintain that living in languaging arose not because it was necessary for the survival of our ancestors, or in any way advantageous, but merely as a result of their manner of living together
>
> (Maturana & Verden-Zoller, 2008, p. 62)

We do not follow a necessary design when we learn. What systems learn becomes necessary in the course of the making process. Learning happens in coherent transformations between systems and unforeseen conditions or events through coupling, decoupling, and conservation over time. According to Maturana and Varela (1990), the natural evolutionary drift resembles a “vagabond sculptor” that randomly links accidental findings that fit together.

> Evolution resembles rather a vagabond sculptor that walks through the world and takes this thread here, this piece of metal there, this piece of wood here, and puts them together in a way that their structure and circumstances allow, without any other reason than just putting them together.
>
> (Maturana & Varela, 1990, p. 76)

Active in the margins

When systems are only determined by their structure they are fully captured by their own rules and response-abilities.

> Structure-determined systems are perfect in the sense that they never make mistakes. It is behaving in the only way that it can behave in those circumstances according to the structure.
>
> (Dell, 1985, p. 11)

A living system is a unity of differences that does not totalize its elements. Fully attuned symmetrical or harmonious relationships do not exist (Kleinherenbrink, 2017). Any world that was to emerge from fully attuned symmetrical or harmonious relationships would be stable and static. Our world is not stable and static. It takes energy to keep things in their place. All the connections that are made are characterised by hesitation, deficient anticipation, and erosion, wearing and tearing and faltering.

Systems are not determined solely by their coupled components. Not all components are coupled equally and in the service of the repeated operations of the system in the medium. There are loosely-coupled components (Ashby, 1959), free components (Maturana, 1980), or untamed elements (Deleuze, 2007). In a school, for example, we can easily identify elements that do not serve the dominant operation of being a school: there is a hot summer sun shining through the window, distracting the students, there are spiders in the corners, there is a lost toy in the corridor, the headmaster is having an affair with the secretary, and the staff are gossiping about it. No narrative can embrace the totality of what has happened; there are always details that have gone unnoticed, and secondary stories that are implicit but untold (White, 2007).

Loosely coupled, free or untamed components are primarily active in the margins of the system; the centre serves the system’s dominant operations. The elements at work in the margins are open to change, to finding a niche for new couplings or configurations that may come as a surprise. These new configurations may become necessary in the making process; they may expand the reservoir of response-abilities and the response space and be capable of systemic conservation in and between systems within an embedding matrix.

Systemic learning involves the expansion of both the reservoir of response-abilities (structural changes through intra-actions in a multi-actor network) and the response space (reflexivity through

exchanges, interaction within communities of care). It is not possible for us to control change or to give instructions to cause change from the position of an outsider. Observers, teachers, consultants, and therapists play an active role in the system that they are observing, teaching, supervising or treating. They can open up zones of unforeseen connections (Deleuze, 2007) and reflect on what emerges, on "differences that make a difference".

Case example (2): Unforeseen connections

During a family therapy session, a girl (7) is screaming very loud, the whole time.

Mother: We have to stop the conversation; she gets traumatised by it.

Father: This is what you always do, you give in to her negative behaviour.

Parents look expectantly at me.

The sister (9) makes a constellation with dolls about family life. She places a wooden block, symbolising all the worries, in the centre, her sister on top of it, her parents next to it and herself on a big distance.

I ask myself (in my inner dialogue) how to make a difference without losing the connection.

I take the wooden block and I give it to the younger girl.

I tell her: I think you have a very important story to tell, but we don't understand it yet. This block is your story. Take it home, take good care of it and give it, next visit, back to me. Maybe… you want to tell us something about the block. Maybe, you can make a drawing of it, so we can understand you better.

She stops screaming, looks to me, surprised, takes the block and puts it in the pocket of her jacket. I took a risk and I didn't know what the effect would be.

One week later she brought the block back to me and she showed her drawing. We saw a little boy with big tears in a prison and an explosion of colours outside.

Father was struck by it. He told about a vigilant silence in his family of origin, a violent father who never had talked about his traumatic experiences as a war prisoner.

Father: Do you think there is a connection?

I really don't know, I said. Do you want to find out? I asked.

Navigating complexity through feedback

> Systemic life oscillates between fractal self-similarity and negative feedback loops on the one hand and a dynamics of positive feedback loops on the other, in which random developmental noise or more violent environmental disturbances can push equilibrium over into another path, resulting in a very different final product
>
> (Beressem, 2009, p. 84)

Living systems are autopoietic, self-organising or self-learning, systems. We have seen that systems conserve and develop manners of living, make and break patterned habits, through generations and within bio-cultural contexts that permit their existence. They do so through feedback mechanisms. Feedback is classified as positive or negative on the basis of its effect on the system, not on its content. The effect of negative feedback is to maintain structural constancy (morphostatic), while positive feedback produces a deviation in the variability of response-abilities, structural change, through intra-action (morphogenic).

Navigating in complex non-linear systems means anticipating and learning how to anticipate when something unexpected takes place. Small changes generate a great deal of complex behaviour and may have dramatic effects, because they may be amplified repeatedly by self-reinforcing feedback (Capra & Luisi, 2014). A micro-organism in an animal market in China can lead, in a cascade of consequences, to a drastic reorganisation of familiar ways of living together, a stock market crash, less pollution and a cleaner air.

Small changes can become “tipping points” (Scheffer, et al, 2009) shifting a system abruptly from one state to another. Biologist Scheffer (2009) researches transitions through “tipping points” in terrestrial eco-systems, such as in lakes, oceans and range- lands. He tries to find indicators of whether a system is getting close to a critical threshold. Tipping points in unstable systems are difficult to predict. Scheffer points at the dynamic-systemic phenomenon of “critical slowing down”. In systems approaching a bifurcation, the recovery from perturbations through the effects of feedback is slowing down. A system is “eco-resilient” (Scheffer, 2009) dependent on its capacity to respond on disturbance. A system develops a wider variety of response-abilities through the effects of (systemic) learning on the basis of its use of feedback.

Learning systems

Control and causation (in the sense of interaction that provides instructions) do not exist. Only difference can trigger a response (Bateson, 1979). The world is not causally determined, as Newton argued, but structurally determined within response spaces that permit ways of living together differently. A mother seeking to find effective ways of behaving with her second child will need to discover and use only those methods that fit that particular child (Dell, 1985). Mother and child will find unique ways that are suited to them if they systemically trust their abilities to connect. Maturana identifies systemic trust as a condition for learning. A butterfly systemically trusts the world to satisfy its needs when it struggles free of its cocoon and flies into that world. Mistrust leads to systemic blindness (Maturana & Verden-Zoller, 2008) and the urge to control and manipulate the world. There is a difference between trying to control the world and trying to influence it. Seeking to control means trying to manipulate what happens in ways that correspond to our expectations. We exert influence and learn how to anticipate when something unexpected takes place.

How do systems learn how they learn? This process may be understood from diverse perspectives: positivist, constructivist, constructionist, and the perspective based on complex-systems theory.

(1) From the viewpoint of positivist epistemology, knowledge exists independently of the learner. First-order learning is functional and informative education. Learners adapt their behaviour to external norms and expert knowledge.

(2) From the viewpoint of constructivist/cybernetic epistemology, learners construct knowledge. Second-order learning, as the result of reflexive dialogues, occurs when assumptions and aspirations become the subject of our learning.

(3) From the viewpoint of constructionist epistemology, learners construct knowledge not as a reflection but as an artefact of communal interchange (Gergen, 1985). In the process of social constructionism, we co-create collective frames of reference, a cultural environment that makes our existence possible.

(4) From the viewpoint of third-order cybernetic, complex-systems theory, learners learn how to learn (Bateson, 1972) in unpredictable circumstances, as a result of first and second order learning and the social construction of frames of reference. This implies learning about the contexts in which experiences of repetitive interactions are formed, maintained, and altered (Visser, 2003).

Fig. 1. Perspectives on learning

Epistemological approach	**Systems**	**Learning**	**Learning by**
Positivism	Closed systems	First order: Single loop learning	Adaptation to external norms or expert knowledge.
Constructivism	Open systems	Second order: Double loop learning	Reflexivity. Triggering structural changes within the system that open up new possibilities for connection.
Constructionism	Belief systems	Collective construction of meaning	Co-construct a collective frame of reference that fits.
Complexity Theory	Complex systems	Third order: Deutero-learning	Learning how to learn. (1) Deutero-learning (2) Meta-learning

Elements such as cells, organs, bodies, couples, families, subcultures, populations, humans, species, “humanimals”, cyborgs, and so on – are systems within systems within systems. A system is “eco-resilient” (Scheffer, 2009) depended on its capacity to respond on disturbance. A learning-system develops a wider variety of response-abilities through the effects of (systemic) learning on the basis of its use of feedback. Systems and their medium conserve and develop manners of living. In so doing, they form a configuration, a new system of components, a productive multi-actor network. An entity is self-organising (autopoietic), productive in relationships, and part of an ecology of human and non-human actors.

1. Self-organising (autopoietic)
2. Relationally productive
3. Part of an ecology (of human and non-human actors)

Ecosophy, a new materialist turn

Post humanism

Postmodernist philosophers (Heidegger, Foucault, Deleuze) proposed theories that are classified as anti-humanism. Anti-humanism is by no means "anti-human". It challenges the way in which the term "Man" (or humankind) is construed in the modern humanist era of Western thought. Humanism and positivism are the cornerstones of the Enlightenment. Postmodernists criticise the anthropocentric account of life in which the autonomous human being, guided by a universal law of reason, is "the measure of all things" (Protagoras). Instead, they argue that human nature is a historical and social construct. The human subject is a historical entity (Deleuze, 1995).

The anthropocentric view attracted a growing wave of criticism in the 1960s and 1970s, fuelled by the historical and political movements of the age. Critics pointed out that great ideologies had failed to produce progress. On the contrary, the belief in the superiority of human beings had led to fascism and the Holocaust, communism and the Gulag, the application of scientific knowledge to develop and use nuclear weapons, postcolonial wars, a capitalist meritocracy, and ecological disasters. The human subject, according to Foucault (1970), is the result of a process of subjectification, under the influence of political, social, cultural, disciplinary, and normative forces.

In his work *The Order of Things* (1970), Foucault predicted the "death of the human subject". The account of the human subject as an autonomous, rational agent is a historical arrangement of thought. This "Man", this arrangement of thought, could disappear as it had appeared, could be erased like a face drawn in sand at the edge of the sea (Foucault, 1970). Heeding Foucault's prediction, social constructionists developed a different model of self that can accommodate different ways of being together. An anti-humanist approach could serve to justify a passive, relativistic, consumerist stance in this pluralist world. Braidotti (2013) argues that there is a crisis in political thinking that we need to overcome. Life must not be taken for granted. It should be approached as an ethical, political, and juridical praxis, something to be worked on. So, let us shift our focus to considering what other "models of self" would be more suited to the present-day world.

The posthuman nomad

> We need new frameworks for the identification of common points of reference and values in order to come in terms with the staggering transformations we are witnessing.
>
> (Braidotti, 2013, p. 196)

Braidotti introduces the post-human nomadic subject. She argues that we need to pass beyond an anti-humanistic pessimism (Foucault) without relapsing into a more universalistic orientation, in the manner of neo-humanists (Habermas, Nussbaum). "Neo-humanists attach the question of subjectivity to a universalistic belief in individualism, fixed identities, steady locations and moral ties that bind"

(Braidotti, 2013, p. 39). She argues that we need to start from a "politics of locations" and everyday life, thus becoming post-human nomadic subjects (Braidotti, 2011, 2013). Nomadic thought overcomes relativism and makes thinking an affirmative activity.

Nomadic thought "makes all thinking into an affirmative activity that aims at the production of concepts, precepts, and affects in the relational motion of approaching multiple others" (Braidotti, 2011, p. 2).

Let us examine four different characteristics or components of the "post-human nomad": (1) posthuman, (2) non-binary, (3) destabilising, and (4) active in the margins.

(1) Post-human. Living a post-human existence (that is, living beyond being human) decentres the human being, not as a passive outsider but as an active participant in a pluralist world, along with natural, human, animal, technological co-actors, interacting in an ecological "multi-actor network" (Latour, 1979). In other words, "post-humans" are embodied, embedded, and interconnected with multiple human and non-human actors in the world.

(2) Non-binary. Becoming a nomad means rejecting binary oppositions (self versus other, majority versus minority, culture versus nature, man versus woman, humans versus animals) and instead kindling "an affirmative passion for the transformative flows that destabilise all identities" (Braidotti, 2013, p. 41). Nomadism promotes pluralism rather than dualism. Every binary opposition is false because nothing can be reduced to something else (Kleinherenbrink, 2017). Once differences are artificially defined as opposites, it is inevitable that one side of the opposition is conceived as active and dominant while the other is seen as passive and dependent: a "woman" is a "non-man" rather than something in her own right. The non-dualistic approach means seeing every entity as active, productive, and vulnerable in relation to numerous other active and productive entities (Kleinherenbrink, 2017).

(3) Destabilising. In the work of Gilles Deleuze, the nomad has nothing in common with the romanticised vision of a Bedouin. Rather, he posits a dissonant nomad, who operates in between primitive life and civilised society. The world cannot be described in terms of a single organisational principle. The nomad destabilises fixed identities and unravels dominant representations. Nomadic thinking is about "tracing lines of flight and zigzagging patterns that undo the dominant representations" (Braidotti, 2011, p. 2). It is about "differing from myself as much and as often as possible" (Braidotti, 2011, p. 31).

(4) Active in the margins. Decentring the human in nomadic thinking means "becoming minor" ("minotorian") – becoming the marginalized other; woman, animal, machine (Deleuze, Guattari, 1987). The centre is void; all the action is in the margins (Braidotti, 2011, p. 42). The centre is rigid; all potential for change lies in the margins. "The main objective, through nomadic interventions, is to deterritorialize dogmatic and hegemonic centres of the contemporary global world." (Braidotti, 2011, p. 19).

A new materialist turn

Braidotti (2011, 2013), Haraway (1984), Barad (2007), and Bennett (2010) all emphasise the urgency of a "new materialist turn" in postmodern thinking as opposed to transcendental and dualistic

traditions (Dolphijn & Van der Tuin, 2012). This “new materialist turn” is “a cultural theory that does not privilege the side of culture, as in social constructionism, but focuses on what Donna Haraway calls “nature-cultures” (Dolphijn, Van der Tuin, 2012). “The social construction of *what?*” Braidotti pointedly asks. She identifies active matter, material, and nature as “agentic” participants in life. Matter is not an obedient puppet on a string (Kleinherenbrink, 2017), a result of an external organisational principle (positivism), or a result of our own conversations (constructionism). Rather, matter, materialisation, is active and influential in its own right. This view can be traced back to Spinoza, “The mind is an idea of the body, making the body necessarily the object of mind” (Spinoza, *Ethics*, 1677).

Multi-actor Networks

All situations are the result of multi-actor networks, which are called “collectives” by Bruno Latour (1979) and “agentic assemblages” by Jane Bennet (2010). In the autumn of 2014, the art student Emma Sulkowicz carried a 50-pound dormitory mattress around with her everywhere she went on the campus of Columbia University in New York. The thing, “the mattress”, was the focal point of a piece of performance art – “Carry that weight” – and was conceived as a protest against Columbia University’s mishandling of her charge of rape against a fellow student and part of her art thesis (Jackson & Mazzei, 2016). The performance activated many others. Other students and friends helped Sulkowicz to carry the mattress. The protest became a media event and was broadcast on television.

Sulkowicz stated in the New York Times (2014*),* “I was raped in my own dorm bed, and since then that space has become fraught for me. And I feel like I’ve carried the weight of what happened to me everywhere since then”. The performance/protest was the result of a multi-actor network, in which the mattress produced agency (Jackson & Mazzei, 2016). Material is vital, has a force of its own, “thing power” (Bennett, 2010). The mattress, Sulokowicz, the alleged rapist, students, the media, public spaces on campus, and the administrative authorities of the institution all combined to produce “another body”, an agentic assemblage (Jackson &Mazzei, 2016).

Agency, according to new-materialists, is not localised in the human subject but is generated by multi-actor-networks, agentic assemblages. Karen Barad (2007) has coined the term “intra-action” to transcend the common definition of interaction and to fuse or “entangle” meaning and matter. Interaction is about what happens *between* bodies/systems, which each retain a measure of independence amid that interaction. “Intra-action”, on the other hand, is about what happens from within. Bodies/systems are engaged in a living process of coordination, through transformational intra-actions. Each body or system has an interior, a reservoir of “response abilities” (abilities to act). When they “intra-act”, these abilities shape and limit their own capacity to act: agency emerges from, and is transformed by, relationships in intra-actions.

This new materialistic account of life has a lot in common with Maturana’s constructivist theory about a bio-cultural matrix, structural determinism, the co-evolution between system and its medium as a result of coupling and decoupling in the spontaneous interplay between bodies/systems. Intra-action refers to the intra, an interior, an inner reality or even an essence (Kleinherenbrink, 2017). The term “essence” tends to be disparaged in postmodernism. But perhaps we are adopting too modernist a view of essential realities, as if they were static and knowable. From a nomadic and new materialist perspective, an essential reality can be thought of as unknown and dynamic.

1. From a modernist perspective: There is an external reality that is objectively knowable.
2. From a postmodern perspective: There is no external reality. Everything is fluid. We notice the “in between”.
3. From a new materialist perspective: There is an external reality, but we can neither fully comprehend it nor ignore it. It is an active part of multi-actor networks influencing our lives. We notice life from within. Meaning and matter are entwined.

Ecosophy

> Without modifications to the social and material environment, there can be no change in mentalities. Here, we are in the presence of a circle that leads me to postulate the necessity of founding an "ecosophy" that would link environmental ecology to social ecology and to mental ecology.
>
> (Guattari 1996, p. 264)

In his work *The Three Ecologies* (1989), Felix Guattari, which draws heavily on Bateson’s *Steps to an Ecology of Mind*, advocates an interdisciplinary unification of studies of the mind, society and environment. Guattari emphasises the urgency of the need to develop an ecosophic perspective as a response to the escalating ecological crisis in the world.

> For Guattari then, as with Bateson, ecology is far more than a concern for the environment, it is an epistemological system, based on an understanding of nonlinear systems governed by feedback loops and non-linear causality. An understanding of connectivity, of balanced systems, network topography and complexity theory [is] fundamental to the way in which this ecosophic model operates.
>
> (Taffel, 2008)

Guattari’s ecosophy is a territory, a multiverse, “chaosmos”, a unity composed of differences, a temporary result in the process of a territorialisation of space. Animals territorialise space. Deleuze and Guattari cite birdsong as an example of territorialisation. A bird sets the stage and then sings a song. The performance is the result of intra-acting multi-actors in mutual relationships within the territory.

> The bird sings its territory, or rather, the territory as relational rhythmic act sings itself through the bird, as the refrain actualises musical points of order, circles of control and lines of flight.
>
> (Khalfa, 1999, p. 128)

In this article, I re-integrate cybernetics and social constructionism in systemic theory. Both epistemologies aren’t contrary, but complementary. New materialism (Barad, 2007, Braidotti, 2011, 2013) could be the bridge in between. Systems intra-act (Barad, 2007) within systems, determined both by structure and meaning. Every becoming of an event happens moment by moment, spontaneously, in a multi actor network, as a result of intra-acting structural determined, response-able systems (composed unities of components) within a response-space, a culture (closed network

of conversations) that permits, limits and validates the conservation, expanding and development of relational ways of living together otherwise, within a bio-cultural matrix that embeds.

Systemic nomads

> Responsibility, then, is a matter of the ability to respond. Listening for the response of the other and an obligation to be responsive to the other, who is not entirely separate from what we call the self. This way of thinking ontology, epistemology, and ethics together makes for a world that is always already an ethical matter.
>
> (Barad, 2012, p. 55)

Why should we become systemic nomads? Guattari (1996) emphasises that an escalating ecological crisis in the world demands an ecosophic perspective. We – humans and non-humans – are all in this together. Every situation takes place within the territory of a multi-actor network. The systemic nomad de-territorialises and reterritorializes temporary territories, planes of composition, "agentic assemblages". The systemic nomad takes a relational responsible stance towards all entities that participate in the multi-actor factory of life.

Systemic intelligence

> From a very early age, we are taught to break apart problems, to fragment the world. This … makes complex tasks manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole.
>
> (Senge, 2006, p. 3)

A relational responsible stance to all participants in the multi-actor networks demands a systemic sensitivity or intelligence. Peter Senge (2006) draws a distinction between systemic intelligence and systemic ignorance. The interdependence throughout the world has greatly increased, and we do not know how to handle it. No one actually desires the systemic outcomes that we are consistently producing. Neither abuse nor pollution is anyone's objective. They are among the effects of systemic ignorance. Systemic intelligence is experiencing oneself as one element of an interdependent environment, aware of the influence of the whole on the individual and vice versa. This systemic awareness is a degree of intensity that opens up possibilities for relational responsible transformation.

Transformation in complex non-linear systems cannot be predicted or controlled. The systemic nomad introduces "the roar of the earth" into the process of becoming; opening up space for something unforeseeable that takes us by surprise and shatters our horizon of expectation. Truth as an unpredictable future event is fraught with risks. If we try too hard to minimise the risks, we will prevent the event (Caputo, 2013).

> Truth is uncomfortable, [it] is the shock of the unknown that breaks into our lives
>
> (Caputo, 2013, p. 100)

Systems, as unities of difference or chaosmos (Guattari, 1996) that do not totalise their elements remain open for transformation. Elements at the heart of the system are strictly attached in the service of the system's primary functions. Marginalised and loosely coupled elements (Ashby, 1959) are capable of – and open to – engaging in new couplings. The systemic nomad tries to find niches for alternative couplings. This intra-activity is fraught with risks. A certain systemic parrhesia (van Hennik, 2019) is required to open up response space and challenge transformation without being silenced or excluded (or being compelled to drink a fatal cup of hemlock).

Navigating complexity

The question is how to navigate complexity as a systemic nomad, within multi-actor-networks, to open up space for change and produce reliable information about the process.

"Not getting it"

> What (possibly) exists out there is complex and ambiguous and can never simply be captured… Any claim of truth claim then says as much or more about the researcher's convictions and language use than about the object of study.
>
> (Alvesson & Karreman, 2011, p. 7.

> Something is happening and you don't know what it is, do you, Mr Jones?
>
> (Bob Dylan, 1965)

In 2011 John Shotter published his book *Getting It*, about "thinking in the moment" when encountering unique, "first-time-events". In spite of its title, the book opens up space for what we *can't get* – the ineffable. Shotter refers to "a third realm" of mysterious events that subsist in between those that we are completely unable to describe in words – the ineffable – and those we believe can be addressed through rational thought. More precisely, he distinguishes: (1) the Ineffable; (2) problems that can be solved through the application of reason; and (3) relational difficulties in between, difficulties of orientation, struggles relating to how best to "go on". Shotter's book focuses on this third, in-between realm, the process of "getting it" – even without ever being able to fully comprehend it.

> With the help of Wittgenstein's (1953) methods, we can begin to find our 'way around' within the realm of the mysterious, to 'find our feet' within it, so to speak, even though it may never be wholly comprehensible to us.
>
> (Shotter, 2011, p. 3)

Although Shotter's focus in *Getting It* is on "the third realm", I want to look a little more closely here at the ineffable, or the imperceptible. The ineffable, or imperceptible occurs when we experience bewilderment and feel perplexed and confused. Although this sensation influences our everyday lives, science has nothing to say about it (Barad, 2007). Opening up to the imperceptible requires us to

descend into primeval chaos and feel at home there (Wittgenstein, 1953). It requires "negative capability" (Keats, 1899), the capacity to sustain uncertainty and instability, to live with "the unforeseeable and unpredictable" (Caputo, 2013, p. 92) and to "trust in spite of not knowing" (Han, 2014).

We need to learn how to open up space for the ineffable, the imperceptible, without trying to "get it", because the effort to "get it" means losing it. Water provides a good metaphor: it can buoy up a ship but slips through our fingers if we try to grasp and hold it. In research in the social sciences, we are obliged to accept that "social reality is not fully understood" (Alvesson & Karreman, 2011, p. 115). What does awareness of the ineffable look like?

The book *The Feeling of What Happens* (1999) by the neuroscientist Antonio Damasio introduces a three-layered scale of consciousness (1) the proto-self; (2) core consciousness; and (3) extended consciousness. Damasio's "proto-self" is a coherent collection of neural patterns, which map the state of an organism's physical structure from one moment to the next (Damasio 1999). Core consciousness is born when the organism becomes aware of its bodily state (proto-self) as affected by its (emotional) experiences and responses to those experiences. The brain continues to present a non-verbal narrative sequence of images in the mind of the organism, based on its relationship to objects, such as a person, a melody, or a neural image. Core consciousness is concerned only with the present moment, the here and now. It has no need of language or memory, nor can it reflect on past experiences or project itself into the future (Damasio, 1999).

The psychologist William James (1842–1910) discussed ways of experiencing our lives through a stream of consciousness, embedded within a flow of living. Opening up space for the ineffable, the imperceptible, and the core consciousness implies getting a sense of life within the stream of consciousness, within the flow of life.

> Yet, as James emphasizes, vague and unnameable though they may be, such tendencies are central in 'shaping' our everyday activities. "It is, in short", he says, "the re-instatement of the vague to its proper place in our mental life which I am so anxious to press on the attention" (p. 254)
>
> (Shotter, 2011, p. 26)

> Indeed, as James shows, within our experience of the stream of our subjective lives, as he calls it, there is a tendency for every moment to be "infected", so to speak, with aspects of not only previous moments but also with anticipations of what next might occur.
>
> (Shotter, 2011, p. 25)

"Getting it"

"Getting it", in Shotter's book (2011) is about dealing with what he calls "its" (living moments in unique circumstances), sensing and doing detailed justice to those "its", without "stripping them down" to fit them into already well-known categories or frameworks (Shotter, 2011). Instead of thinking about difficulties as if they were objects "over there" in the world outside us, Shotter argues that we can

"relate to" and "enter into" our difficulties in an exploratory fashion. Shotter calls this exploratory fashion "withness thinking". "Withness thinking" means "to know what we are doing while we are doing it, but which we didn't plan in detail before we embarked on it" (Shotter, 2011, p. 2).

> I have called this alternative approach to imaginative, exploratory thought, withness-thinking, to contrast it with our much more usual style of exploratory thought in which we think about things in terms of some kind of representation, that is, picture, of them. It involves imaginatively thinking from within a moment of acting, with the voice of another or with a detailed concrete circumstance in mind. For, as we shall find, such events can provide us with action-guiding anticipations as to how we might act next in relation to the particular difficulties we might face, in each unfolding-moment by unfolding-moment, in such a circumstance.
>
> (Shotter, 2011, p. 2)

Shotter describes an "in-between space" between sensing and expressing. "We know that there is 'something there' to be said, 'something' that our words must somehow express" (Shotter, 2011, p. 36). Shotter describes the tension inherent to finding a way to go on inside this "in-between space". He illustrates it with an example from a therapy session described by Tom Andersen. Andersen, talking with a man that has beaten his wife and son, feels an invitation to say: "Stop doing what you are doing". He realises that corrective instructions often don't work. Andersen then asks the man whether his hand is open or closed when he hits. He asks: "if your hand, on its way to hit, stopped and talked, what might the words be?" (Shotter, 2011, p. 14) The client has difficulty understanding the question, and, noticing this, Andersen thinks about to himself that this is not surprising: for some people (maybe mostly men), in some situations, hitting out may be easier than finding words. Andersen asks: "Do you have another side that wants something differently"? "Sure" the man replies and together they explore this other voice. Andersen asks: "where in your body will that voice be". "In my heart" the man said. Shotter comments:

> Here, clearly, Tom's task was not an intellectual one. He did not face a problem that could be solved by the use of reason. The difficulty he faced with the man was a difficulty of orientation, a relational difficulty, a struggle to do with how best to "go on" with such a troubled man.
>
> (Shotter, 2011, p. 15)

Cartographies for a systemic nomad

How does a Systemic Nomad navigate complexity within multi-actor-networks? Inspired by the philosophy of Deleuze I developed three cartographies conceptualising structure- and meaning-determined responsiveness:

1. Cartography 1: Navigating complexity from within
2. Cartography 2: Earth, territory, map
3. Cartography 3: Aion & Responsiveness

Cartography 1: Navigating complexity from within

> Thus, as I see it … a "therapeutic moment" occurs when a uniquely new "something" – created in the dialogically-structured exchanges occurring in the dynamics of the unfolding relations between us – enters us, and as a result, opens up previously unnoticed new ways forward into the future, by creating new expectations within us as to what will happen next in our current situation.
>
> (Shotter, 2011, p. 771)

"Not getting" it, "knowing from within" and "getting it" are ways of navigating complexity. Navigating complexity means anticipating, learning how to respond to disturbance based on feedback in order to maintain balance or transform in preferable ways. I (as therapist) navigate when I respond to complexity by trying to get control or by moving within a flux, with or without reflection on what is happening.

Fig 2. Navigating complexity

Navigating	Not reflected	Reflected	Fit	Opening space
In control	**Reactive**	**Directive**	Yes/no	Yes/no
In a flux	**Spontaneous responsive**	**Reflexive**	Yes/no	Yes/no

I distinguish:

1. Spontaneous responsive. An unreflected spontaneous embodied response.
2. Reactive: An unreflected response in order to try to control a situation.
3. Directive: A reflected strategic response in order to try to control a situation.
4. Reflexive: Reflection in action, anticipating and observing to whatever happens within a flow.

A response is effective when there is a fit within the system and an opening space to new connections or meaning. We can be accountable navigating complexity. We can be resonse-ible learning through feedback loops, asking participants if/how we are making a fit and if/how we are opening up response-space for new (unforeseen) connections. Systemic learners learn how to anticipate in unpredictable circumstances, as a result of first-order learning (adaptation) second-order learning (improvisation), the social construction of frames of reference (deconstruction & re-framing) and third-order learning how to learn (practice based, collaborative, systemic inquiry).

Case example (3): Feedback-informed systemic therapy as Practice Based Evidence Based Practice

> *In feedback-informed systemic therapy as a Practice Based Evidence Based Practice (Van Hennik & Hillewaere, 2017) practice and research effectively intertwine. The therapist is both practitioner and researcher and involves clients as co-researchers. The output of research is input for therapy in the "collaborative learning community" constituted together. Together*

they learn how to learn, trying to grasp what spontaneously occurs in living moments. Analysing therapy transcript helps us to understand how change occurs in unplanned organic processes. The therapist ads the inner dialogue to the transcript, inquires how triadic patterns between the therapist and family members are reactive or reflexive, close down or open up space for new (unforeseen) connections.

Joni (17) was suffering from the effects of anorexia, depression, and an obsessive-compulsive disorder. Inpatient treatment had thus far proved ineffectual and Joni had no confidence that it could make a difference. Team-members of the therapeutic unit felt powerless and suggested force-feeding in the hospital. Parents, afraid Joni would commit suicide, made a complaint and suggested a different kind of treatment. Team-members defended their policy. I saw Joni, in that moment of conflict, paralysed with fear. We all got stuck in a reactive pattern, closing down space for new (unforeseen) connections.

I felt a bit paralysed too, trying to make a difference changing the setting. I started to interview Joni about her knowledge of the disorders that interrupted her and her family's life. I asked some team-members to listen as-if they were Joni, as-if the parents and as-if the disorders that interrupted their lives. I asked parents and other team-members to listen to our conversation and write down the words that had moved them. Then I asked Joni to express the impact of the disorders on her life in terms of percentages. She replied that the disorders influenced 99.9% of her life. We all fell silent for a few minutes. "Could you tell me something about the 0.1%?", I asked. Joni shrugged her shoulders, and tears sprang into her eyes. "Are those tears protesting against the influence of the disorders on your life?" I asked. She nodded. "What would the tears tell us, if they could speak?" She said that they would express their concern about the pain her parents were experiencing, and then she wept. "Do you love and care about your parents?" I asked? She said yes, she did. "Is that love and care in the 0.1%?" I asked. Her reply was: "Those disorders can damage almost everything, but they can't take away the love and concern I feel for my parents." Parents told in their re-telling about Joni her response-ability to love and take care in many situations in her live. This opened space for co-creating an alternative narrative about Joni her identity and dreams for her live.

We recorded this conversation for collaborative inquiry, and we read the transcripts learning how we have learned. Joni reflected on the assumption: "it's bad to put others before yourself". She challenged a therapy culture in which intrinsic motivation is much more appreciated than extrinsic motivation. Parents, therapists and team-members decided to collaborate better as team supporting Joni to live in harmony with her values and dreams. We were able to continue the in-patient treatment.

Cartography 2: Earth, territory, map

> The often rationally ignored nature of the singular and often fleeting expressive-responsive events occurring in the meetings between us as living beings, and the others and othernesses in our surroundings.
>
> (Shotter, 2002, p. 1)

Earth, territory, map

Reuniting cybernetics and constructionism in systemic thinking, I link the ideas of Bateson and Deleuze regarding earth, territory, maps, and the differences between them. Korzybski (1879–1950) emphasised the distinction between territory and the map of that territory. According to Bateson, our focus should not be on either the map or the territory, but on the difference between the two. Deleuze distinguishes "earth" from territory. Thinking, according to Deleuze and Guattari (1994), takes place between territory and earth.

Deleuze and Guattari assert that the earth is the potential of all life possible. As our potential, the earth is a materialised reality, dynamic, and not to be known. We cannot fathom it, yet it determines the opportunities that exist in life. Territorialisation constitutes an affirmative framing of the earth, a creation or cocreation of concepts. A territory is a space that has ceased to be functional. The map is not the territory, but an abstraction and representation derived from it. The map helps us to orient ourselves, as we inhabit territorialised spaces on earth. We make our way around the *earth* by traversing *territory*, and we find our way back, seek points of orientation, by drawing a *map* of the various paths we have followed.

We can compare the earth-territory-map to a starry sky, with an arrangement of material, a perceived experience, and a constellation.

Fig. 3. Earth-territory-map

Earth	**Difference in between**	**The Territory**	**Difference in between**	**The Map**
Reality, dynamic and unknowable		Life and stories lived (How we perceive and shape life)		Stories told (Discourses, constructs, narratives, storylines)
Aion, natural drift	"Not getting it"	Navigating	"Getting it"	Orientation
Response-ability	**Spontaneous responsive**	**"Withness" thinking**	**Reflexivity**	**Response space**

The earth is our potential, a materialized reality, dynamic and unknowable. We can't "get it", parts of it are beyond our powers of perception, but nonetheless exert influence over our lives. In between the earth and the territory we can sense what unfolds without actually knowing what it is. Our body responds spontaneously (Shotter, 2011) within "the feeling of what happens" (Damasio, 1999). From within we navigate life through "withness thinking". The territory refers to the experience we have perceived and the stories we have lived. In between the territory and the map we are trying to express what we have perceived in language. The map refers to frames of reference, stories told, discourses, constructs, narratives, and storylines that shape, permit and limit our response space. Life happens *in between* the genesis of earth, the creation of a territory, and the making of a map. In between the

coming into being of earth and the creation of a territory, Aion (Deleuze, 1990) is active. Deleuze uses the ancient Greek concept "Aion" to describe "life force" that runs through everything.

Aion

Aion is an ancient Greek concept of infinite time, "infinitum into past and future, in both directions at one" (Deleuze, 1990, p. 164). Deleuze describes Aion as "the explosive internal force that life carries within itself" (Deleuze, 2000, p. 51). Aion, a continuing tense of becoming, runs through everything. It occurs in our "spontaneous bodily responsiveness" (Shotter, 2002) to the world. By centring "Aion" I carry out an "affirmative account of life".

Case example (4): Stories as temporary results in the process of the territorialisation of space

Megan (15 years) responded confused, finding out her diagnosis MCDD (Multi Complex Development Disorder) didn't exist (isn't used) anymore. Her parents were, 6 years ago, in a high-conflict-divorce. They battled determining who was the better parent, and were, because of that, not always emotionally available for her. Megan was very worried about her mother who got hospitalized because of psychosis. She responded with panic attacks, was seen by a psychiatrist, got the diagnoses MCCD and learned to accept seeing herself as having a brain-disorder. Megan, bullied by peers, made up stories about her extra-ordinary life in order to impress, but nobody believed her. She felt "crazy" and socially isolated for years. In therapy we did collaborative research looking for a sense of belonging and re-creating a richer description of self. We deconstructed taken-for-granted assumptions about psychiatric diagnoses, opening up space for the acknowledgement of more fluid identity-stories, in which biology and intra-action is embedded and understood within a culturally based system of meaning.

Sermijn & van Hennik (2019) used Megan's story and reflections in a project Voi(c)es. Voi(c)es was first performed at the European+ Conference of Narrative Therapy and Community Work in Antwerp. We invited Megan and others (with resonating experiences) as outsider witnesses (White, 2007) to watch the video "Closer to You" (Goemaere & Sermijn, 2016). In this video a woman tells her son how the diagnosis of Bipolar Disorder affected her life and sense of self. The responses of Megan and the other witnesses were recorded, transcribed and performed on stage. We combined voice, image (film) and music during the performance. "The combination between image, voice and music creates an intense visual and auditory game that carries away the spectator into the sensation of how it feels, as a Deleuzian 'dividu', to get stuck into the rigid unity of a centralised story and how difficult it is to create 'lines of flight' to other territories of living'" (Sermijn & van Hennik, 2019). Megan her story was performed on stage to an audience of mainly therapists. The audience responded by writing short letters to the witnesses whose voices had been heard and seen.

Megan's voice:

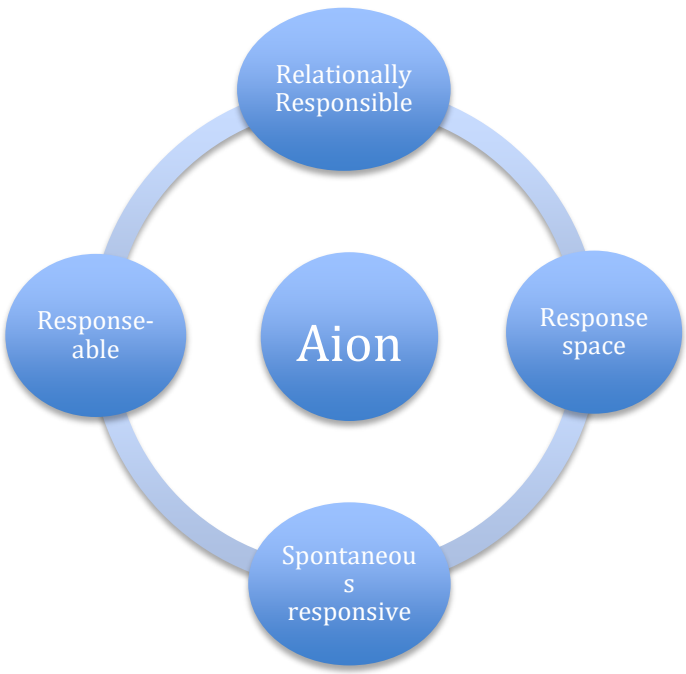
I didn't know how to stand up for myself. All those repetitive conversations with therapists didn't help much. The psychiatrist didn't ask questions about my situation, was not aware how my parents were in trouble, not able to take care of me. I got the diagnosis MCDD. Can I suffer from a disease that doesn't exist anymore? What do you think? I started to make sense by myself, making up stories about

a different me, in a different situation. My mother said it was unsafe with my father and secretly ran away with me. Back home she was forced to go to the hospital. Everybody at school asked: Where were you, where have you been? I said I was at the funeral of Michael Jackson. I didn't even like his music. I just had to say something on the spot. I wanted them to see a picture, I wanted to see. I wanted them to think, what I wanted to think about myself. It is ridiculous but I understand now why I did it. A kid at school suddenly said, "you have autism". I thought "where the hell did you get this information"? His mom, who worked on my previous school, had told him. That's so unfair. Kids started to see me differently. She took the choice out of my hands to tell everybody my own stories. Like in the film, I want to have some agency and my privacy respected. I was trying to have a voice, to have a say in it all. It's not me when I am not in control of it. It is me, when I try.

Cartography 3: Aion and responsiveness

Everything is related and spontaneously responsive in relation to other entities. Responses are structure-determined by systems and their response-abilities. Responses in intra-actions have many unintended side effects. We become (relationally) response-ible when we are systemically aware of those side effects and when we ask ourselves how we contribute making better ecological worlds. The response-space (system of meaning) defines why and how we intra-act and what the expectation is of our doings. Response-space is a result of negotiating space to become multiple and taking a relational responsibility within a community of care/ concern, and/or within a system of multi-actors.

Fig. 4. Aion and responsiveness



Response-ability

The ability to act is different from the act itself. The capacity to walk is not the same as walking (Kleinherenbrink, 2017). Response-ability is a dynamic reservoir of possible responses. In collisions with other entities, the reservoir of responses changes: the variety of responses may increase or decrease.

Bodies, things, and systems intra-act (Barad. 2007). There is a structured interior that determines both the nature of reality and how it can be perceived. Maturana (1988) says: “You hear what you hear, not what I say”. A tree, for example, is not structurally determined in such a way as to understand my language. I cannot fly like a bird, and a bird cannot write a thesis. But structure is not static. Structures are transformed through intra-actions with other structures. In intra-actions, bodies, things, systems collide and adapt their structure in a process of coupling and decoupling (Kleinherenbrink, 2017, Maturana & Varela, 1987).

Everything is connected, but not in harmony. If everything were in perfect harmony, the world would be static (Kleinherenbrink, 2017). Because of their different interiors, the structures of bodies, things, and systems never completely fit into their “niche”. All matter manifests wear and tear, cracks, discoloration, and erosion. The world of the living is dynamic because of “misfits” – that is, elements that are marginalised and only loosely coupled (Ashby, 1959).

Response space

Imagine a tennis match. The match is defined both by the response-abilities of the actors involved and by a response space (Hyden, 2016), a socially constructed space of descriptions. The tennis players, the rackets, the ball, the court, the surface, all have response-abilities. The tennis player has the ability to hold a racket, and to hit the ball in a particular direction. The racket is strong enough to stop and return the ball. A ball responds differently to the racket than a stone or a feather. The game is different on grass than on gravel. Without the force of gravity on earth the game would not be possible. The responses of each actor are defined by its structure. The capacity to play tennis is not the same as playing the game. To play the game, we need more than abilities alone. We need a history, a conservation of patterned intra-actions, reasons to do it, rules, regulations, appointments, expectations, and storylines that shape the experience of playing the game. This system of meaning is a response-space. The response space defines why and how we play the game and the expectations invested in our actions.

The 'Response space” is “a cultural, emotional and interactional defined space of opportunities for how to respond in a morally acceptable way according to culturally defined norms, as well as according to the responses of the other members of the social network” (Hyden, 2016, p. 84).

Response space results from negotiating space to play and accepting relational responsibility in a community. Wittgenstein suggests that we should not look for answers; instead, we should look for possibilities and more space in which to play. How do we create more space to play? We can imagine possible futures and think about “how to be together otherwise”.

> Hope is a way of dreaming up possible futures: an anticipatory virtue that permeates our lives and activates them.
>
> (Braidotti, 2013, p. 192)

Response-ible

We are response-ible when we ask ourselves how we can contribute in repetitive patterns, escape, and make better social worlds (Pearce, 2007). Barnett Pearce came up with four helpful questions to explore and expand our response space ethically:

(1) What are we making? (2) How are we making it? (3) Who do we become by making this? (4) How can we make a better social world (Pearce, 2007)?

We (from a new-materialist perspective) can co-create better ecological worlds if we are conscious of the effects of our actions in interdependent relationships with all actors in life, when – as nomads – we display systemic sensibility or intelligence (Senge, 2006) within systems of multi-actors.

Case example (5): multi-actor-networks

In the "collaborative learning communities" we try to consider systems as unities of different intra-acting human and non-human actors. Every phenomenon, or event is the emergent result of spontaneous re-organisations of all response-able actors in the network within a certain response-space. Recent research (Bratman, Anderson, et al. 2019) reveals the value of nature experience for mental health. Children in green neighbourhoods show less symptoms of ADHD, stress and depression. There is a decrease of bullying when the schoolyard becomes greener. Living nature contributes to people's quality of life. We can, working with families and children in trouble, invite children, friends, parents, neighbours, landscape architects, gardeners, beekeepers, journalists and policy makers in our collaborative learning communities and consider the eco-system, we live in, as a unity of different actors with; plants, trees, flowers, insects, computer games, children, buildings, bee-keepers, healthcare-professionals, parents, neighbours, teachers, playgrounds, internet-access, press, politics, etcetera. Challenge is to build eco-resilience within the multi-actor network, taking a relational-response-ibility towards all response-able actors in the network and to open up response space for more diversity and the development of all life-forms involved.

Conclusion

In this article I have followed a line of flight as a route, a trace in a multiplicity (Deleuze & Guattari, 1972). Where has this line of flight led?

In this second part of Systemic Nomads I suggest to systemic practitioners to become system nomads, to re-integrate cybernetics and social construction and adopt a new-materialist account as the bridge in-between. The systemic nomad can take a relational responsible stance towards all entities that participate in the multi-actor factory of life.

Systemic practitioners, let's become systemic nomads, embrace complexity and develop an ecosophy that promotes connectedness and inclusion! We are the world that shapes us. Every situation is the result of an intra-acting multi-actor network of human and non-human generators (Kleinherenbrink, 2017). Actors (entities, organisms, things) collide, couple and decouple (Maturana) in meetings, transform their reservoir of response-abilities (structure) within a response space (meaning system). Systemic nomads can make a better ecological world if we are conscious of the effects of our actions

in interdependent relationships with both human and non-human actors. We – as nomads – display systemic sensibility or intelligence (Senge, 2006), when we learn how we learn Systemic nomads learn how to learn to anticipate in complex systems, through adaptation, improvisation, the deconstruction and reconstruction of frames of reference, through practice based, collaborative and systemic research (Van Hennik, & Hillewaere, 2017).

Inspired by the philosophy of Deleuze and Guattari I made three cartographies for systemic nomads navigating complexity in multi-actor systems. I adopt a new materialist perspective as a bridge between cybernetics and social construction. There is no discourse that remains divorced from a material context. Materialism without action is not transformative, is nothing (Kuntz, 2015). I hope these cartographies inspire systemic practitioners to develop response-ible discursive-material-practices as ecological responses in a biological, technological and cultural determined world.

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Citation

Van Hennik, Robert (2021). Becoming a posthuman systemic nomad. Part II: Systemic Nomads. An Ecosophy. *Murmurations: Journal of Transformative Systemic Practice*, 3(2), 1-29. https://doi.org/10.28963/3.2.2