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WHAT DO LEADERS NEED TO HARNESS CHAOS INTO ORDER?

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About the Authors

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WHAT DO LEADERS NEED AS TO HARNESS CHAOS INTO ORDER?

Ryszard Praszkier

Abstract

Since Frederic Laloux' book Reinventing Organization (Laloux, 2014) the concept of leaving a free space for employees to interact and take co-responsibility has become more common. Those organizations which promoted bottom-up processes and initiatives has been referred to as teal organizations and presented as a model worth following. This trend was the key to understanding complexity.

In social sciences complexity is being referred to as freely interacting objects, and the possible feedback loops which result in unpredictable emergent phenomena. There are several related theoretical studies which support this idea. This article addresses a serious gap, concerning the knowledge on those preconditions which are needed to facilitate the transfer of free, chaotic interactions into a chaos-to-order (C2O) process, whilst preventing chaos-into-destruction consequences.

Based on a diverse case analysis we put forward the type of management qualities which should be the prerequisites for C2O leadership, and reflect on possible assessment methods.

Moreover, the article opens the way to developing educational and training programs which would help future leaders to draw from the open and free horizontal communication so as to result in a higher-level order.

Leaders' complex environment

Complexity has become a popular word, although the term "complex" is commonly considered synonymous with "complicated," "plentitude" or "compound"; the word "complexity" is being falsely perceived as synonymous with "multiplicity." However, this term has a completely different meaning in theoretical terms.

Complexity as a premise for analyzing the chaos-to-order processes

According to The American Heritage Science Dictionary, complexity is 1. the study of complex and chaotic systems and how order, pattern, and structure can arise from them, and 2. the theory that processes having a large number of seemingly independent agents can spontaneously order themselves into a coherent system.¹ A narrower definition fitting the business and social arena is that complexity science is the study of the phenomena that emerge from a collection of interacting objects or agents (Johnson N., 2009). We will adopt this definition in this article, highlighting the open way of those interactions: complexity science is the study of the phenomena that emerge from a collection of freely interacting objects (FIO) or agents.²

¹ See: http://dictionary.reference.com/browse/complexity+theory

² It is worth mentioning that first insights into complexity leadership started as early as the 1990s, when Waddock & Post (1991) noted that social entrepreneurs recognize the complexity of social problems and use their understanding to become catalysts in the change process.

Figures 1 and 2 illustrate the difference:

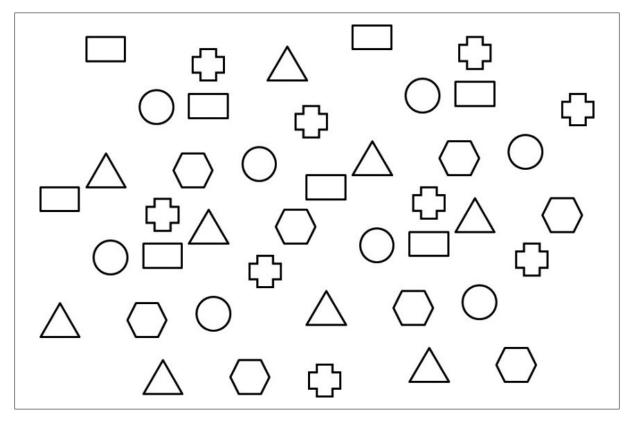


Figure 1: Multitude (many diverse objects)

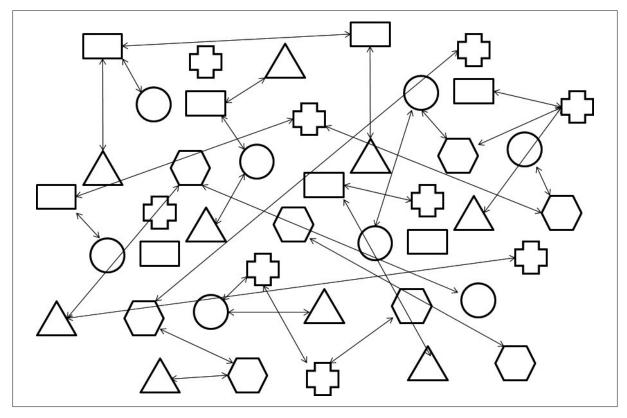


Figure 2. Freely interacting objects (FIO)

Free interactions between subjects may result in the formation of multiple feedback loops. This again differentiates the regular A to B, B to C communication, introducing instead multiple feedback loops in which there isn't one easily identifiable thread of causation, such as A leads to B, B causes C, C influences D, etc. On the contrary, there are multiple feedback loops between A, B and C, which together lead to complex results (Johnson S., 2002; Praszkier, 2018).

These free interactions and feedback loops (on a lower-level) may lead to the appearance of new phenomena (on a higher level). This process, when these interactions reach a turning point, beyond which they transform into completely new, higher-level, irreversible phenomena, is called the *emergence* (Gladwell, 2002; Johnson, 2002; Nowak, 2004). In other words, initially chaotic interactions may lead to a new order.

Praszkier (2018, pp. 47-48) is introducing the following example: in an American underdeveloped and underserved urban area, a group of young scouts starts cleaning the streets. Independently, someone designates a clean space for a kindergarten, and other young adults plan a baseball square. Elsewhere, a group of women form a choir, and others open a gym. All those initiatives are bottom-up, initially isolated and chaotic. At some point the scout leaders might meet with the kindergarten principal and the baseball coach, and also invite the choir director and the fitness advocates. Deliberating on how to increase the safety and quality of their neighborhood, they launch a proud-of-our-community club which, in turn, attracts many dwellers to join various community efforts and also promotes this new approach to community enhancement. People organize themselves, setting new safety, health and prosperity rules. At some point the community becomes a neat, desirable location with unexpectedly skyrocketing housing prices. Through a feedback loop, this compels the dwellers to maintain higher standards, affecting their mindsets, as they begin to identify with their new "wealthy community" status. After a period of interaction, suddenly a discontinuous jump arises, related to the quality of the location, its prices, and mindsets of the dwellers.

Harnessing Chaos into Order

This case demonstrates the potentials embedded in FIO: the many chaotic interactions at the beginning lead to several initiatives which, due to multiple feedback loops amongst key players, yield a discontinuous "jump" from the initial state of total underdevelopment to a well-organized and highly valued community. Chaos, previously understood as a threat, becomes a "primordial soup" of emerging bubbles of a new order.

However, not all underdeveloped communities reach the tipping point. In many cases the initiatives appear, albeit isolated, not to be connected with each other, and not developing a network of mutual support and feedback loops. In some cases chaos may even become destructive (gangs, drugs, low-rank schools, etc.) – see the last case study below.

At this point the key question is: how to channel the dynamics of FIO as to reach the level of new order to emerge?

It seems that it may be challenging for leaders to accept and harness FIO and channel them into a self-organizing chaos-to-order process (see: Axelrod & Cohen, 2000; Eoyang & Holladay, 2013).

Going even further: chaos-to-order dynamics may become a deliberate, welcomed by many contemporary leaders way of development. One of the precursors was Dee Hock, the founding CEO of VISA International who coined the term "Chaordic Age" (Chaos + Order=Chaordic) in 1999.³ The author holds that the remarkable success obtained by VISA was

³ Hock (1999).

mostly achieved due to the acknowledging "chaotic" interactions "at the bottom," and subsequent advantage of the bottom-up emergents – while constructing and pursuing the idea.

Complexity in organizations

Considering complexity premise as part of the structure of organizations (business, social or political), one may identify three categories of communication: vertical (top-down), horizontal (between subjects from various departments on the same level) and; see Figure 3:

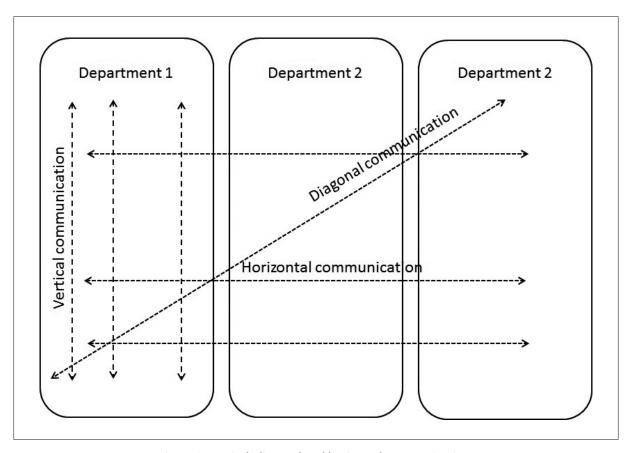


Figure 3. Vertical, diagonal and horizontal communication.

Vertical communication has several disadvantages: Information is often filtered as it moves up and down the chain of command, and managers receiving a request directed to upper management may decide that the request isn't valid and slow, change or halt its progress.⁴

Horizontal or diagonal communication is the flow of information across departmental boundaries (Bovee & Thill, 2011) or across functional areas at a given level of an organization. People at the same level communicate freely without going through multiple organizational levels (Papa *et al.*, 2007).

Given horizontal elasticity, members communicating this way within an organization have an easier time with "problem solving and information sharing across different work groups and task coordination between departments or project teams." The use of horizontal (diagonal) communication in the workplace "can also enhance morale and provide a means for resolving

⁴ See Linda Ray's article in Chron: http://smallbusiness.chron.com/vertical-communication-organization-20985.html Retrieved 13 October 2018.

conflicts" (Papa *et al., idem*, p. 56). Moreover, horizontal communication is very important as to promote the understanding and coordination among various people and departments, besides – being quicker to communicate within the organization.⁵ Following the complexity definition, the organization could be considered as a complex system if it would enable free interactions between subjects both horizontally as well as diagonally.

It is worth mentioning that Nassim Taleb's "black swan theory" – a metaphor that describes events that come up as a surprise – has a considerable impact on the broad public's understanding of the phenomena pertaining to discontinuous jumps which are the result of complex processes. Black Swan events are another form of transforming chaos into the emergence of higher-level order. They are unpredictable by definition, especially in a lineal, A to B, B to C logical way (though often inappropriately rationalized after the fact with the overuse of hindsight).

Examples of negative Black Swans include consequences of economic "bubbles" like the dot-com crash (2000-2002) and the fall of Lehman Brothers (2008), which triggered a worldwide recession.

But Black Swans can also move us forward. Ground-breaking scientific advancements such as Einstein's relativity theory (1905) or quantum theory (late 19^{th} - early 20^{th} centuries), would certainly fall into this category, as would major social innovations. Mohammad Yunus' introduction of the microcredit banking system for the poor is a good example⁷.

Examples of chaos-to-order (C2O) style of management

One cannot comprehend the potential of groups, communities or societies by analyzing individuals separately. Even if all the possible tests and interviews were applied to each individual, one wouldn't be able to predict the possible dynamics of a group consisting of those individuals.

During the Tahir Square Protests in Egypt (February 2011), the Christians organized themselves to protect Muslim prayers, and the Muslims protected a Christian mass.⁸ Could anyone predict such *ad hoc*, well-organized bottom-up initiatives?

It is worth mentioning that this unpredictability is also visible in nature, in the phenomenon of soundwaves travelling through air, for example. Even with a meticulous analysis of every single air particle, one would never conclude that when such particles are brought together they would propagate waves. Similarly, could an ornithologist tell from studying birds one by one that, together, they can instantly stop chaotic moves and form an elegant V-shaped flock, lasting for flights across continents? Indeed, mysterious potential is embedded in the free interaction of molecules, animals and people.

Below are four diverse examples showing how, through FIO, chaos was turned into higher-level order, and one depicting the opposite results.

Case study 1. Instigating bottom-up initiatives in an underdeveloped region

In Zegocina County, an economically and socially disadvantaged region of southern Poland, several top-down attempts at addressing the society's underdevelopment had failed, evoking

⁵ Retrieved 13 October 2018 from Business Communication: http://bizcommunicationcoach.com/what-is-horizontal-communication-in-business-importance/.

⁶ Taleb (2010).

⁷ Yunus (2007).

⁸ See: MailOnline report of February 2011 at: http://www.dailymail.co.uk/news/article-1353330/Egypt-protests-Christians-join-hands-protect-Muslims-pray-Cairo-protests.html; retrieved 13 October 2018.

frustration and resistance to outside experts who had little knowledge of the population. As a result of growing frustration the dwellers developed a lack-of-power-attitude combined with distrust, and lowered self-esteem.

Dagmara Bieńkowska, a young graduate, started her intervention by learning about the community from within: she lived there for a month, shared stories and lifestyle, spent time with youth groups, etc. She soon learned that in the community there is a strong identification with the region and dreams for its development. She noticed, however, that two groups were excluded from this shared sentiment: senior citizens and aggressive, bullying young people. On the other hand, she understood that both groups played significant roles in the community: the first through the ability to exert their influence, albeit from behind the scenes; the latter by occupying a prominent place on the list of negative bullying stories.

Dagmara Bieńkowska understood that it was necessary to circumvent the core issues through a positive undertaking, which would in return release some new energy. While having a beer with young people, she suggested they visit the senior citizens and gather some recipes of regional dishes. This worked out perfectly, as the senior citizens were more than eager to share their traditional recipes, and the young people felt that they were doing something new and important. The image of local bullies and senior citizens working on a project together, although inconceivable, was intriguing. The local authorities saw this as an opportunity and proceeded to print an unedited edition of the Cookbook of Zegocina County, distributing it at conferences as a first local product that they could be proud of. The second edition was published professionally and sold out, and the income was channeled into community educational projects. This was the only intervention: Dagmara Bieńkowska backed away, leaving the further dynamics in community's hands.

The success of the cook-book project transformed the youth group into a major entrepreneurial force, as they saw that cooperation yielded an immense payback. They impromptu launched several new ventures (restaurants, souvenir shops, small rafting enterprise, etc.), triggering an entrepreneurial movement among other community members. For instance, during a time of national disaster, when the region was heavily affected by floods, it turned out that the Zegocina community was the best organized and coped the best with the disaster. Capitalizing on this development, a Zegocina Book of Water Element was published and sold as a manual for other communities to cope with natural disasters. The income again was channeled into the community's social projects. Eventually, through their bottom-up approach and the auto-catalytic change-dynamics, Zegocina County experienced unforeseen economic development, surpassing all the neighboring communities.

Dagmara circumvented the typical levels of frustration, addressing the two most marginalized groups – the semi-bullying youth and the senior citizens – by creating a new field for their cooperation. She intuited that the two groups could have a strong impact on the community by dimply joining forces. Dagmara prompted them to cooperate over a neutral topic (cooking recipes,) far away from the conflicting arena. Through this process, a new positive trend appeared – the tendency toward cooperation and entrepreneurial behavior. The success of the consecutive undertakings turned into a positive feedback loop, reinforcing the new positive tendencies of trust and cooperation (social capital).

The important method was releasing community's latent potentials through triggering an endogenous process. After the cook-book's success, through further natural and spontaneous interactions between dwellers (FIO), the change dynamics turned into a highly organized community, which was proud to notice that their economic growth is created through endogenous processes.

Case study 2. Peacemaking through endogenous economic growth

The Middle East is a part of the world where distrust and disinclination are prevailing in the cross-ethnic relationships. Many expensive top-down attempts such as mixed Arab-Israeli schools, or consulting with conflict resolution experts failed.

Social entrepreneur Dr. Yehudah Paz⁹ is building islands of peace in this insurmountable and protracted conflict area. His core conviction is that mere conflict resolution is not enough, as peace leaves a void, which is very often difficult to bear for people used to war, especially if they see no other prospects. Following this path, he looks for partners amongst the clashing groups and gets them involved in profitable joint ventures; through cooperating in these ventures, Jews and Arabs experience the great benefits that ensue from joining forces. Dr. Paz's ideas for joint ventures result in a peace imbued with new prospects based on trust and success.

Not only are there new enterprises blossoming, but also a secondary effect is the empowerment of Arab women, who find themselves at the forefront of building a new economic development of their families and community. The joint Israeli-Arab approach is reflected in the structure of his organization, which is jointly led, with the most active vice president being an Arab woman, who not only seeds the new concepts, but also serves as a model for change. The participants and their families benefit from this peaceful collaboration are determined to be peace Ambassadors.

By building bubbles of trust and cooperation Dr. Paz is also preventing the potential outbreak of dormant conflicts between the two communities. He calls his approach an "integrated development," combining trust, cooperation and economic growth with education and orientation toward peace, yielding a direct effect (economic growth, motivation for preserving peace) as well as indirect effects, such as changing mindsets on the role of women, who prove to be successful entrepreneurs.

Dr. Yehudah created a milieu which fosters multiple horizontal relationships and opens the avenue for turning hate into friendships. His interventions limits to initial training and incubating the ventures, leaving space for free interactions and the emergence of new model of both communities' coexistence and cooperation.

Case study 3. Eating culture in the hands of people

Carlo Petrini¹⁰ couldn't agree with the fast-food and fast-life philosophy beginning to prevail globally. He dreams of a world in which all people can access and enjoy food that is good for them, good for those who grow it, and good for the planet. He started to realize this dream in the early 1980s, beginning with Arcigola, an association whose aim was to promote the culture of conviviality of good food and wine.

In 1986, when he and his friends opposed opening of the first fast-food establishment – McDonald's on Piazza di Spagna in Rome, they demonstrated against fast-food at the famous Spanish Steps. He then realized that opposing something was not his style. He decided that instead of confronting he would create resistance by building awareness of the goodness of the traditional food that was at risk. And this is how his ideas and the Arcigola experience developed into the Slow Food movement. In 1989, at the Opéra Comique in Paris, the Slow Food Manifesto was signed by more than 20 delegations from around the world, and Petrini was elected president, holding this position till today. The Manifesto mentions:

- Good quality, flavorsome and healthy food
- Clean production, that does not harm the environment
- Fair affordable, prices for consumers and fair conditions and wage for producers
- Good, Clean and Fair quality is an act of civilization and a pledge for a better future.

⁹ See: www.ashoka.org/en/fellow/yehudah-paz#intro

¹⁰ See: www.ashoka.org/en/fellow/carlo-petrini#intro and www.slowfood.com

The Slow Food idea spread throughout the world, engaging millions of people in 2,000 food communities in more than 160 countries. It addresses not only the culture of eating, but also small-scale and sustainable production of quality food and the way it's distributed and sold.

One of the ways Carlo Petrini gave initiative to people and to bottom-up ideas to thrive was through initiating a global and indigenous network called Terra Madre, which connects with a diverse range of networks, communities and organizations around the world. The Terra Madre communities are embedded in local culture and context and initiate own ways of realizing the core idea.

Another way of "giving to people" is the youth global network Slow Food Youth Network (SFYN), where young people initiate diverse ideas around the Manifesto.

Carlo Petrini also coined the term eco-gastronomy and was very engaged in developing a University of Gastronomic Sciences (UNISG, launched in 2004), a school bridging the gap between agriculture and eco-gastronomy.

He was *Time Magazine*'s Hero of the Year 2004, was named one of the "50 people who could save the planet" by the British newspaper *The Guardian* in 2008, he received the highest UN Environmental Award of the Champion of the Earth (2013), and was named Special Ambassador Zero Hunger for Europe by the Food and Agriculture Organization of the United Nations (2016). He was also nominated as Communicator of the Year at the International Wine and Spirit Competition in London, he received the Sicco Mansholt Prize in the Netherlands, an honorary degree in cultural anthropology from the University of New Hampshire, and the Eckart Witzigmann Science and Media Prize from Germany.

Carlo Petrini's Slow Food movement has not only received a visible recognition in the media as well as various prestigious awards, but it influenced human culture in general. Its mission offers the chance for many to re-connect with the food chain and a platform for interacting, brainstorming and reaching out and by doing that – doing good.¹¹

Case study 4. Tomato Game at Morning Star

The Morning Star Company¹² is the largest tomato processor worldwide, handling nearly 40 percent of the tomatoes processed each year in the United States, with more than 400 year-round employees producing more than \$700 million in annual revenue.

The self-managing company operates collaboratively, and all employees, regardless from their role and position, called each other "colleagues". There is no top-down management, and people are being held responsible by their peers. As they set their performance goals, they make commitments to peers, the same peers who would ultimately be reviewing the company results.¹³

There are only two rules, which were initially introduced by the founding CEO Chris Rufer in 1970, and that are still valid today: people shouldn't use force or coercion against others, and they should honor the commitments they make to others.

These two rules proved to be enough for the company's rapid development. Interestingly, the company has no human bosses; the boss is the Mission of the enterprise and peers-to-peers responsibility. There are no titles and no promotions. Moreover, anyone can purchase what he or she believes may be necessary for acquiring the resources needed to do his or her own work. Compensation decisions are peer-based as well.

¹¹ See Jack Cheng's, the Slow Web's initiator's article at https://jackcheng.com/the-slow-web/

¹² www.morningstarco.com; retrieved 24.02.17

¹³ Hamel (2011); Kirkpatrick (2011)

The employees commonly say that they can't wait for the weekend to be over so that they can get back to the game of work (called the Tomato Game) as a self-managers. Morning Star wants colleagues to find joy and excitement in drawing from their potential, and above all, to take personal responsibility and hold themselves accountable for achieving the company's "Big Mission" as well as their own personal missions.¹⁴

Because of its determination of the self-management philosophy Morning Star launched a Self-Management Institute.¹⁵ Doug Kirkpatrick from this Institute says that the company's leadership style took shape with the implementation of the two, above-mentioned simple rules. And it's worth highlighting that simple rules generating big results are one of the pivotal keys to complex systems (as opposed to many complicated rules which may stifle the development). And it's worth highlighting that simple rules generating big results are one of the pivots of complex systems (as opposed to many complicated rules which may stifle the development).

Here are some Morning Star practices which proved efficient:

Every Morning Star colleague is responsible for defining a <u>personal commercial mission statement</u> that outlines how she or he will contribute to the company's goals. In other words, individuals not only plan their performance agreement, they also set a personal overarching mission. This means that role of employees isn't limited to a simple list of goals and checkboxes, but rather, it is re-defined as one that serves the company's mission but also has meaning for them as individuals.

Colleagues become responsible for the accomplishment of their mission and for acquiring everything they need, e.g., training, resources, cooperation and to get the job done. Hence, they're driven by their mission and their commitments, not by controlling managers.

To operationalize the Personal Mission Statement, employees negotiate a <u>Colleague Letter of Understanding (CLOU)</u>. This isn't done vertically, with managers or superiors (who don't exist). It's done in partnership with those associates who are the most affected ones by the employee's work.

Each year the CLOU is modified and adjusted to accommodate growing competencies, new interests or the changing environment. However, once set, CLOU becomes nearly sacred. Instead of controlling managers, every employee in the company receives feedback from their CLOU colleagues. The ways to accomplish the CLOU commitments are all in employees' hands, and so is the choice and purchase of the equipment.

Within this model, colleagues also trust one another to know when they are overloaded or if a new role needs to be filled. Self-management guides staffing decisions, and <u>colleagues</u> <u>are responsible for initiating the hiring process</u>.

Roles are open and flexible. There are no centrally defined boxes, layers of management or positions. Instead, colleagues develop their skills and gain experience naturally. They simply take on greater responsibility to the degree they are willing to and able to deal with. This, in turn, makes people feel more responsible and engaged, willing to explore and innovate.

To advance the knowledge of self-management, Morning Star launched a Self-Management Institute. The Institute analyzes the nuts and bolts of self-management on its website, recommends several resources and shares case studies. Its focus is solely internal, driving the development of organizational self-management within Morning Star.

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¹⁴ Each colleague sets his personal mission as part of the commitment, see later in this chapter

¹⁵ www.self-managementinstitute.org

Case study 5. Chaos to destruction

These four cases are positive examples of chaos-to-order processes. It is important to be aware that their opposite dynamics are also possible, leading the project from FIO to destruction. One of these examples refers to the Paris *banlieue* (suburbs).

These areas are predominantly and densely developed into apartment houses built in the 70s and planned in a top-down way as to accommodate all social classes, particularly the working class. This totalitarian architectural design was successfully launched, however, over time the term *banlieues* has often been used to describe troubled suburban communities: in 2005 the unemployment rate in *banlieue* was 20.7% compared to 8.6% French average; the poverty rate was 26.5% (6% in France) and single-parent families were 15% of *banlieue* population (8% in France).

Finally, this intentionally idealistic model, became increasingly contested as "inhumane," for example evoking a number of demolitions of housing facilities.

Case studies - conclusions

Freely Interacting Objects with multiple feedback-loops

In the first four cases the premise was designed to set a space for free interactions:

Dagmara Bieńkowska initiated the Cook Book idea, and the rest was in the hands of the dwellers: editing the culinary recipes, publishing, etc. The success of the Cookbook of Zegocina County triggered more subjects' interactions around new ideas on startups. The flood empowered the community and encouraged it to organize itself, subsequently becoming a role model for other groups affected by similar environmental problems. These interactions led to new feedback loops between dwellers, especially between the unconnected before segments: the senior citizens and the ex-bullies..

Yehudah Paz' peacemaking project was based on launching multiple joint ventures, where women communicate horizontally, building together a new peace-sustaining environment. The economic success triggered several feedback loops, e.g., between women entrepreneurs and men (husbands, fathers), benefiting from the generated income. Moreover, the new partnerships and - in many cases - friendships amongst groups which had been hostile with each other, created feedback loops with the civil society, urging for sustainable peace.

Carlo Petrini launched several global movements initiating bottom-up ideas related to the culture of eating. He innovated the Slow Food Manifesto, but the way it was realized was by empowering people, communicating and discussing both locally as well as cross-regionally. These connections, especially within global platforms, instigated several feedback loops and led to many new value-added initiatives.

The philosophy and praxis of self-management at the Morning Star company is based on free interaction and horizontal communication amongst colleagues, who inspired each other and maintained high standards of co-responsibility. These connections created new feedback loops between individuals and groups, leading to the emergence of new concepts and projects.

Endogenous, as opposed to exogenous dynamics

In all cases (except the last one) the initiatives were in the hands of the people and, in that vein, were *endogenous*, i.e., growing from inside the system. The impulse which triggered the process was minute, with leaders leaving the further *autocatalytic* development to others.

Dagmara Bieńkowska didn't start working on her project before she was able to experience hands-on, how the community was thinking. Basing on that, she suggested a launch idea, i.e., put together the Cookbook of Zegocina County. This process sparked the interest and promoted

trust and engagement (in other words – social capital), switching the mindsets from helplessness to empowerment and, as a second-order result – kindling multiple business initiatives which subsequently benefited the entire region. After activating the Cookbook process everything was carried out by the locals, and based on their endogenous initiatives.

Similarly, Yehudah Paz activated the connections and business initiatives which became a dynamic social system without further leadership, as an insider, by creating own communication and a new culture of cooperation between groups which had been hostile to each other. Peace wasn't brought in from the outside (e.g., by external conflict resolution specialists) nor was it imposed top-down by governmental projects – it simply emerged as a desired milieu for further development.

The Slow Food concept was inspiring both globally as well as locally, opening its own ways of celebrating and cultivating the benefits and joy stemming from Carlo Petrini's philosophy. The paths which Slow Food has undertaken, carried on and developed is all in the hands of various local and global (e.g. youth) communities.

The colleagues at Morning Star are the ones who directly enjoy and "play" the Tomato Game: they are all co-responsible and co-creators. The whole philosophy is based on endogenous dynamics, deserting the traditional top-down management.

Small impulses & simple rules generate big results

In the first four cases the prompting impulses were relatively small and cost-effective: cookbook, joint ventures, healthy eating and co-management. These small launchers activated processes which led to big results, changing the underdeveloped community into a prosperous one, building preconditions for sustainable peace, alternating unhealthy food processing and consumption into a healthy and enjoyable social process, resulting in the setup of prosperous and competitive corporation on the global market.

Only a few simple rules facilitated the dynamics, e.g. the two Morning Star two rules: don't coerce and be responsible before your peers.

Chaos to order

In the first four cases freely and chaotically interacting subjects were the leading force for the emerging order: chaotic encounters between the elderly and youth group at Zegocina County, free interactions between key players of the women-led ventures in Middle-East, participants of 2000 food communities in 160 countries interacting locally and globally, and the colleagues of Morning Starts interacting and – through those interactions – innovating new concepts. The leadership style could be here called C2O leadership:

Chaos to destruction

The last example demonstrates an idealistic housing model which was imposed top-down on people by architects and politicians. There was nothing done beyond just giving people affordable housing opportunities in densely populated blocks. Displaced from elsewhere, dwellers found themselves in a new environment, no social network nor roots or bonds. Young people in need of identity ¹⁶, were tending to join and identify with negative groups.

What was missing, was societal positive glue, mentioned by Alexis de Tocqueville as an observation of American neighborhood and social mutual help and connectivity; he wrote that personal interaction in voluntary associations provided the *social glue* that helped to bond individual Americans together¹⁷. This "social glue" was probably on Emile Durkheim's mind

17 See: de Tocqueville (2003); Field (2008).

¹⁶ See: Erikson (1993).

when he coined the term *organic solidarity*¹⁸ and also may be related to Francis Fukuyama's concept of *spontaneous sociability*. ¹⁹

The leaders' challenge

As we observe the benefits from facilitating FIO to transform the dynamics into a higher-level order, and at the same time keep in mind the dangers of failure and destruction, an essential question arises with regard to the qualities of the leader, i.e. the person who is trying to harness chaos into order (let's call this kind of leaders "C2O Leaders").

Clearly, one could draw the answer from modern knowledge on leadership: transformational (inspiring others) – as opposed to transactional (i.e. maintaining control) – kind of leader,²⁰ also uses the Versatile Leadership approach (adjusting personal style to the context and needs; being able to choose freely between styles instead of "freezing" one of them).²¹

Moreover, apart from the afore mentioned case studies and many more occurrence of complexity, we can assume that the following abilities are expected to support the facilitation of chaos-to-order dynamics:

Prerequisite 1. Building Social Capital

The above mentioned social glue, currently called *social capital*²², is presumably one of the prequisites of turning chaos into order. Social capital is predominantly perceived as an important value, both for individuals²³ and for groups or societies²⁴. Moreover, many authors highlight the significance of social capital as a catalyst for economic growth²⁵.

Social capital refers to connections amongst individuals – social networks and the norms of reciprocity and trustworthiness that arise from them²⁶ It is also seen as aggregation of the actual or potential resources that are linked to the possession of a durable network, which consists of more or less institutionalized relationships of mutual acquaintance and recognition.²⁷

Prerequisite 2. Empathy

Empathy is seen as essential for successful leadership both in business as well as in the social sector. Empathy is a business skill that's absolutely critical to the bottom line: it provides the ability to connect with and relate to others; in that sense, the power of empathy is to break down barriers and open doors.²⁸ All the aspects of empathy (e.g. emotional, cognitive, social) provide avenues for better understanding and being able to tune into the others' needs and emotions.²⁹

¹⁸ Durkheim (1984).

¹⁹ Fukuyama (1996).

²⁰ Bono & Judge (2003); Judge & Piccolo (2004); Bass & Riggio (2006).

²¹ Kaplan & Kaiser (2006).

²² Coleman (1990); Putnam (1993; 2000); Bourdieu (2003).

²³ eg. Adler & Kwon (2002); Brehm & Rahn (1997); Burt (1997; 2001); Coleman (1988).

²⁴ Fine (2001); Praszkier et al. (2009); Woolcock & Narayan (2000).

²⁵ Claridge (2004); Fukuyama (2001); Maskell (2000); Neace (1999); Putnam (1993).

²⁶ Putnam (2000, p. 19).

²⁷ Bourdieu (2003); Coleman (2000).

²⁸ Booth (2015, p.1); Boyers (2013); Pomerenke (2014)

²⁹ Praszkier (2014).

Prerequisite 3. Ambiguity Tolerance

The complex environment with unpredictable jumps and unpredictable emergent phenomena (e.g. Black Swans) creates an ambiguous, hard to control situation. The leader has to develop some personal and social space for accepting the unknown and uncertain. The related psychological category is called Ambiguity Tolerance. Along these lines intolerance of ambiguity may be defined as the tendency to perceive (i.e. interpret) ambiguous situations as sources of threat; tolerance of ambiguity as 'the tendency to perceive ambiguous situations as desirable.³⁰

Prerequisite 4. Complexity thinking

What seems critical is "complexity as a way of thinking."³¹ Authors suggest that there is a specific thinking style, a way of perceiving upcoming events, drawing conclusions and planning – while keeping in mind the power of FIO, the possible feedback loops between them, unpredictable sudden jumps and emergence of new phenomena or a higher-level order.

How to appraise the chaos-to-order leader's qualities?

Assessing the propensity for building social capital

Zablocka et al. (2016) hold that the social-capital-building leader should have a high level of trust³², willingness to cooperate³³, and own strong social support networks³⁴ (as opposed to "Lone Ranger syndrome).

Drawing from these theoretical presuppositions a questionnaire measuring leaders' propensity for building social capital was developed (Zablocka et al., *idem*).

Measuring the level of empathy

There are several relatively simple and easy to use empathy tests, one of which is Empathy Quotient questionnaire³⁵, recommended by the University of Cambridge³⁶.

Evaluating ambiguity tolerance

Stanley Budner developed a scale with 16 items designed to measure how subjects would respond to an ambiguous situation.³⁷

Scaling complexity thinking

This item remains still open, as there doesn't seem to exist any validated questionnaire in that direction. This challenge may be part of the next level of research.

Conclusions

Complexity and chaos gradually become better known in leadership studies. However, so far it either focuses on theoretical analysis of the phenomenon of complexity or on reviews of practical examples, e.g. the Black Swan theory. The question posed in this article: what are the

³⁰ Budner (1962).

³¹ Quoting the title of one of the Axelrode & Cohen's book chapters (2000, p. 28):

³² Bourdieu (2003); Coleman (2000); Cook et al. (2005); Fukuyama (1996); Putnam (1993); Tyler, 2003

³³ Adler & Kwon (2002); Bouma et al. (2008); Knack & Keefer (1997); Putnam (1993); da Silva, 2006

³⁴ Knoll & Schwarzer (2004); Sęk (2001); Sheridan & Radmacher (1998); Tardy (1985).

³⁵ https://psychology-tools.com/empathy-quotient

³⁶ Baron-Cohen & Wheelwright (2004).

³⁷ ibid

necessary conditions to facilitate the chaos-to-order process, is the first step into studies on the preconditions of harnessing chaos into order.

The conjectured personality characteristics of C2O leaders open the way to developing training methods for young leaders as well as some new educational program for school students, as to introduce the C2O phenomenon, and its consequences, as presumably this will be the milieu of their future work.

As for appraising the C2O qualities, the future challenge is to construe one comprehensive questionnaire, encompassing all the four scales: propensity for building social capital, empathy, ambiguity tolerance and complexity thinking. The questionnaire should preferably be short, as the future target population will consist of leaders operating under high time-pressure. The new questionnaire should target, if possible, diverse groups focusing on its *validity* (cohesion), *reliability* (does it really measure what we want to be measured) and *factor analysis* (do the replies group around the desired dimensions).

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