

Satis-action

an intuitive inquiry research

Peter Corvers

Department of Industrial Design
Eindhoven University of Technology
Eindhoven, The Netherlands
c.p.corvers@student.tue.nl

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Introduction

Our society faces many issues like malnutrition, aging, climate change, energy consumption, water scarcity and air pollution. These social, economic and environmental issues are growing in magnitude on a global scale. Our way of life has to change in order to tackle these major challenges to the global society (Brand & Rocchi, 2011). Our way of life requires a fundamental shift in mindset, vocabulary and behaviour (Gardien, Djajadiningrat, Hummels, & Brombacher, 2014). This kind of fundamental shifts is described by Kuhn (1970) as a shift of paradigms.

According to Brand and Rocchi (2011) it is essential in the new paradigm to provide a meaningful context, to practice longlasting, ethical business, and to share value and collaborate with multiple stakeholders. This new paradigm is called the Transformation Paradigm. An economic paradigm which is unfolding in our society along the Industrial, Experience and Knowledge Paradigms.

Governmental, profit and citizen-sector¹ organisations have to adapt to this continuous change (Drayton & Budinich, 2010). An example is the transforming role of citizens and civil servants in the Netherlands, more space for the civil society, self-direction citizens and budget reductions. (Klinkers, Bosboom, Königs, & Robertus, 2014). This transformation takes a lot from the concerned professionals, because it initiate a complex process of change inside governmental organisations while these organisations are no longer the central actor in the society (Gerritsen, 2011; Klinkers, et al. 2014). Resulting in initiatives with the aim to close the gap between government and citizens, or the gap between the systemic and the living world (Gerritsen, 2011).

There are a lot of experiments going on to change the way of interaction between the living world and the systemic world (Eindhoven University of Technology, Industrial Design, 2017). An example is the social resilient program of the province Noord-Brabant. In a M1.1 design project the satis-action method and tools were designed and tested during workshops of this program. These workshops were focussed on some large issues in the society, on national and regional scale. The workshops served policy makers and civil servants in awareness and understanding. To gain more insight in the practice of the satis-action method this M1.2 research project did research on the satis-action method by governmental organisations dealing with wicked problems in complex environments.

Research question

How does Satis-action improve the collaboration between organisations working in a specific case on wicked problems?

¹ with the term citizen-sector, Drayton and Budinich (2010)"define the millions of groups established and run by mission-minded individuals across the globe who are attempting to address critical social needs".(p.56)

Satis-action

Introduction

Satis-action is an interaction method which endeavours the environment and dynamics of people, communities and organisations around a specific case, preferably a human being. The satis-action method is designed on wicked problems of specific cases in complex environments. It tries to achieve a more balanced and sustainable environment.

Central figures represent the problems or needs of the specific case at hand. The central figures are set in the middle of the attention. The persons, groups, communities or organisations in the environment of the central figures are called characters. The characters are represented by professionals. The last representation is the satisfier. Satisfiers are contributions by characters to solve the issues of the central figure. Satisfiers come in all kind of forms like products, services, capital, information or social engagements (Ekins & Max-Neef, 1992).

With the satis-action method professionals are looking for fulfillment of needs of the central figure within its environment (Max-Neef, Antonio & Martin, 1992).



Figure 1 Big chess game in the park as inspiration for the Satis-action tool

retrieved from: <http://onebagger.squarespace.com/display/ShowJournal?moduleId=1217747&categoryId=104170¤tPage=2>

System Constellation Play XL

The *System Constellation Play XL* is a communication tool to make the central figures and characters tangible and sensible. The tool uses large artefacts like pawns of a board game (figure 1) to visualise the central figures, characters and satisfiers. Central figures are visualised by a person-artefact. Characters are designed in six predefined forms distinguished by color (see figure 2). Satisfiers are visualised by coins and are visually linked to a character by color (see figure 3).



Figure 2 Central figure (centre) and characters (surrounding) of the System Constellation Play XL

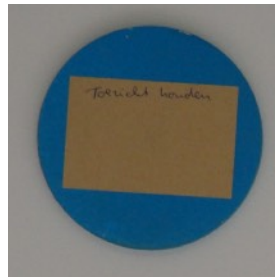


Figure 3 Satisfier by the bleu character of the System Constellation Play XL

The Play

Satis-action uses a story-theater discours to create an understandable language for the participants. The participants structure the system constellation with the use of the System Constellation Play XL and start a dialogue on the dynamics in the system constellation. These activities are referred to as the Play.

First act: introduction central figure

As a first act the central figures are placed in the middle of the room. The moderator state the facts as known by all participants thereby introducing the central figure.

Second act: setup the constellation

The second act is the introduction of the characters. Participants take a character, named it with the organisation they represent and put it into position in a room (see figure 2). Thereby reconstructing the environment into a system constellation.

Characters can contribute to the solution for the problems of the central figure with satisfiers. The satisfiers are visualised by large coins. On the question "What is the contribution of the character to the central case?" the nature or attribute of the satisfier is described on the coin by the participant with a marker. The satisfier will be laid down within the system constellation. This creates an overview on the different satisfiers and their origin.

Third act: dialogue

The environment is reconstructed with the characters and satisfiers by the participants. At this time during the play, central figures are in the middle of the room, surrounded by characters, satisfier coins and the participants standing next to their character.

The moderator goes into more depth on questions below thereby giving each participant the stage to express the considerations about the view on the case, the chosen position and the contributed satisfiers. This puts every character in the spotlight.

The questions are:

- (1) Why does a character want to satisfy the central figure?
- (2) How can the character share the satisfier with the central figure?
- (3) What kind of action will the character undertake to produce the satisfier?
- (4) Are the satisfiers together contributing to the improvement of needs for the central figure?

Underlying questions are:

- (5) What are the problems according to the character?
- (6) Which character or satisfier is missing?
- (7) Are there conflicting problems, satisfiers or interest?

The participants can put in extra characters and satisfiers. To capture the learning moments during the play, findings are written down on a flipboard and a picture is taken of the constellation. At this point the dialogue about understanding is ended. It is up to the participants to decide how to proceed in the closing act.

Closing act

During the third act the characters created an understanding about the construction and dynamics of the system constellation by a guided dialogue. The last act is the development of action to improve the situation for the central figure. Participants can undertake new activities, new characters can be invited or new satisfiers can be introduced. It is up to the participants to develop a plan how, when and in which order the satisfiers are put into action, who invite other organisations and what the next step will be.

Research method

The intuitive inquiry is the quantitative research method used to do research on satis-action in the professional context. Intuitive inquiry fits the researcher because of the working method he uses as a professional military staff officer and engaged citizen. It also fits the case Veiligheidshuis about a multiproblem family because "it has significant implications for human experience" (Anderson, 2004, p.317).

Intuitive inquiry

Intuitive inquiry is a hermeneutic research method. Intuitive researchers explore topics out of enthusiasm, passion and compassion for themselves, others and nature. Topics which enrich their life experiences and transform the topic and their own life. Intuitive inquiry is about nurturing the topic, in-depth reflection on all parts of the research and the engagement of the topic with others until the chosen topic is refined to a complete embodiment with the researcher.

Intuitive inquiry is divided into five circles. Every circle brings more in-depth form and clarity to the research topic.

1. Clarifying the research topic
2. Developing the preliminary lenses
3. Collecting data and preparing summary reports
4. Transforming and refining lenses
5. Integration of findings and literature review

In the first hermeneutical loop of the researcher is reflecting inward using circle 1 and 2. The second loop is the engagement of the researcher with others, in this research with professionals working for governmental organisations using circle 3, 4 and 5.

This report is divided into the five circles of intuitive inquiry. At the start of the chapter, the execution of the circle is shortly introduced.

Test cases

Satis-action was tested in a organisational context of professionals representing their organisations at the start of a project or case on multiproblem issues in a complex environment. In this context most organisations, departments and agencies are occasionally working together on a specific case. Organisations are represented by professionals working on the case. The tests were executed during the kickoff of a case. Satis-action was being tested in a case at the Veiligheidshuis organisation and the Netherlands Armed Forces.

Case Veiligheidshuis

The case at hand of the Veiligheidshuis is a complex case which is handed over to the Veiligheidshuis by one of the partner organisations. Satis-action was used during the kickoff meeting of the involved organisations. The researcher acted as assistant moderator to the Veiligheidshuis-official. The Veiligheidshuis-official was interviewed after the kick-off meeting to find the difference with the normal approach of the Veiligheidshuis organisation in this kind of collaboration.

The participants were asked about their experience with satis-action against their perception of a normal kick-off meeting by a questionnaire. The questionnaires were filled in and returned to the researcher directly after the meeting.

Case Armed Forces

The case of the Armed Forces is a complex case which is handed over to the department named Concept Development & Experimentation (CD&E). The satis-action is used during the kick-off meeting of the involved departments and organisations. The researcher will act as chairman of the kick-off meeting and moderator.

The researcher wrote a free style reflection on the kick-off meeting. The participants were asked about their experience with satis-action against their perception of a normal kick-off meeting by two questionnaires. Before the start of the meeting the first questionnaire was filled in and the second questionnaire was handed over in hardcopy and digital at the end of the meeting. Six out of twelve were returned to the researcher in two days.

Research questions

How does the Satis-action method and accompanying System Constellation Play XL tool contribute to a new approach of multiproblem families?

How does the Satis-action method and accompanying System Constellation Play XL tool contribute to a multidisciplinary project in capability building for the Armed Forces?

Circle 1

Research topic

Cycle 1 starts with meditation or other form of reflection on a subject that is on the researcher's mind. After some insights into the subject the researcher start looking for a research topic. This is an expression of the subject in an artistic way like poetry, paintings, music, songs or small lines of text. The research topic needs to express the subject so the researcher can engage with the topic during cycle 2.

Case Veiligheidshuis

In the M1.2 project the research focused on the satis-action method in the professional context of the 'Veiligheidshuis' organisation. This is a governmental organisation which manages the collaboration of Justice, Care and Government agencies who are working at the level of municipalities on families with multiple problems (Ministry of Security and Justice, 2018). For example a family with a combination of issues on abuse addictions and criminal behaviors where law enforcement, child care, mental health care and prosecution have to work together to achieve sustainable solutions for this specific family.

Even within the context of the Veiligheidshuis cases there are different levels of complexity. Therefore the associated organisations are searching for new approaches. The "meervoudige aanpak" (multiple approach) at the "Veiligheidshuis Zuid-Holland-Zuid" is an example of another way to approach a high complex case of multiproblem families. The Veiligheidshuis official requested the input of satis-action in the kickoff meeting.

Because of privacy matters the case cannot be explained in detail.

This case is about three central figures, a woman, man and son. Several organisations (characters) are involved in support of the son. The woman who also is the mother, asked for professional help from the characters via one of them. The relationships between the central figures and characters is complicated due to events in the past. Every involved character is active within the limit of their position and available resources. Not everybody has the same information-position about the case nor trust from the central figures. To support the request for help the characters need to collaborate in an other ways to become successful in this specific case.

Case Armed Forces

The brigades of the Royal Netherlands Army are in need of armoured mobile command post from which the commander and his staff can command and control the mission. This command post needs all kind of methods to communicate with other command posts and the units in the field. A prototype was build where a armoured vehicle is equipped with state-of-the-art communication equipment to connect via a wide range of radio bands.

The next step is to scale up this prototype towards coherent capability. This is a complete set of five armoured vehicles with a crew, staff officers for the command post and Technics, Tactics and Procedures (TTP's) to operate as a autonomous unit capable to command and control the mission of the brigade. But there is no formal doctrine nor organisation, so the standard chronological procedures cannot be followed. A CD&E project is started to create this capability.

The methodology and unit CD&E have the competence to design, create and organise military capabilities outside of the ruling organisational structures and procedures of the Armed Forces.

CD&E brought together all professional expertise involved in the mobile command post capability. This created a multidisciplinary project organisations. The approach was unprecedented as well. The brigade was in the lead supported by technicians with expertise on communication technology. The doctrinal and organisational professionals have to observe and document and write down their publications latter on. If necessary these experts could advice the professionals directly working on the subject matter.

Research topic

Weick (1995) describes an event of a military unit who were lost in the Alps due to weather conditions.

"The young lieutenant of a small Hungarian detachment in the Alps sent a reconnaissance unit into the icy wilderness. It began to snow immediately, snowed for 2 days, and the unit did not return. The lieutenant suffered, fearing that he had dispatched his own people to death. But on the third day the unit came back. Where had they been? How had they made their way? Yes, they said, we considered ourselves lost and waited for the end. And then one of us found a map in his pocket. That calmed us down. We pitched camp, lasted out the snowstorm, and then with the map we discovered our bearings. And here we are. The lieutenant borrowed this remarkable map and had a good look at it. He discovered to his astonishment that it was not a map of the Alps, but a map of the Pyrenees." (Weick, 1995 p. 54)

The moral of this story, according to Weick (1995), is that any map or strategic plan will work when an organisation is lost, because it will give an orientation for people to follow. Once on the move the cues along the path will guide the way. This brought me to the research topic:

"Once people begin to act, they generate tangible outcomes in some context and this helps them discover what is occurring, what needs to be explained and what should be done next" (Weick, 1995 p. 55).

This text describes the intended meaning of the Satis-action method. By using the tool the participants start acting together and generate tangible outcomes and a tangible context of the specific case or project they are working in. By doing so, they discover the ongoing situation (awareness), start explaining their professional interpretation of the problem and the actions they can undertake, to each other (understanding) and thereby identify possible next steps to come to a comprehensive solution.

Circle 2

Preliminary lenses

In circle 2 the research opinions are set aside. Relevant literature is selected and the research will read through the relevant views on the topic in the standing literature. Out of these literature texts are selected which reflect views on the research topic. The researcher engages with the selected texts in a dialectic and reflective process. The second cycle ends by writing down the preliminary lenses. These lenses are a perspective on the research topic by the researcher after engaging with existing literature.

Preliminary lenses on satis-action

Satis-action is a method which uses central figures, characters and satisfiers to create a system constellation of a complex environment around a wicked problem. The dynamics in this system are brought to life via a dialogue between the characters. The tool *System Constellation Play XL* is designed to play the system constellation and dynamics with professionals who are representing the characters. The characters are artefacts for organisations which are engaged to solve the wicked problems in complex environments.

This research distinct five preliminary lenses regarding the Satis-action method.

1. Satis-action creates a creative vibe between professionals wherein it is possible to work on a common goal.
2. Satis-action creates synchronisation of the activities of the organisations in the specific case.
3. Satis-action makes the subject matter tangible and sensible.
4. Satis-action visualises the core values of the ecosystem.
5. Satis-action creates a creative environment between organisations to reach a comprehensive solution.

The lenses are obtained from literature studies on scientific theories, System dynamics, Human Scale Development and Sustainability Development and from questionnaires and observations during tests in the M1.1 Design project.

Group Model Building

Group Model Building is a method within system theories "to structure debate and to create a learning environment in which assumptions and strategies can be surfaced and tested" (Vennix, Andersen & Richardson, 1997, p.103). A simulation model of a system is built during a multi-day workshop in a facilitated conference process. Participants of this workshop are professionals with expertise about parts of the system at hand. Stock-and-flow diagrams, word-and-arrow diagrams, fishbone diagrams and causal loops are examples of techniques which are used to make the simulation model. System events can be simulated with the model thereby visualising the effects of interventions on the system. Participants become aware of the whole system and start understanding its dynamics. This understanding and the simulation, supports policymakers and decision-makers in their decisions-making-process (Andersen & Richardson, 1997; Vennix, Andersen & Richardson, 1997).

Group Model Building creates a rich understanding of the systems dynamics including the effects of interventions, but there is some debate about the empirical evidence of the method. Vennix, Andersen & Richardson (1997) argue that the impact of simulation models on decision making is more conceptual than instrumental. The Participants learn most during the building process of simulation models and by structuring the conversation about the system in a learning environment rather than from the finished model.

The Satis-action method has significant parallels with Group Model Building. Both are used in a facilitated process, are practiced with professionals and focused on the structure and dynamics of a system. The environment in the Satis-action is the same as the analyzed system in the Group Model Building. There are also differences between the methods. Where Group Model Building takes some days, the practice of Satis-action takes approximately two hours. The model in the Group Model Building method is drawn in schemes, where the system is visualised with artefacts in the Satis-action method.

Because of the extended research on the Group Model Building and the apparent resemblance of the two methods, the knowledge and experience of the Group Model Building method inspired for the creation of the preliminary lenses in this research (Andersen, Richardson & Vennix, 1997).

- (2) Satis-action creates synchronisation of the activities of the organisations in the specific case.
- (3) Satis-action makes the subject matter tangible and sensible.
- (4) Satis-action visualises the core values of the ecosystem.
- (5) Satis-action creates a creative environment between organisations to reach a comprehensive solution.

Human Scale Development

Human Scale Development is the result of a research executed by Max-Neef, Elizalde and Hopenhayn (1992) when they worked on the development of a more humane system or society in several Latin-American countries. Human Scale Development is a practice proposed by Ekins & Max-Neef (1991). This practice offers an option to overcome the economic, political, social and cultural crisis of the Latin-American countries (Max-neef, Hopenhayn & Hamrell, 1992). Human Scale Development is "based on the satisfaction of fundamental human needs, on the generation of growing levels of self-reliance, and on the the organic 'articulation' or relation of balanced interdependence of people with nature and technology, of global processes with local activity, of the personal with the social, of planning with autonomy, and of civil society with the state" (Ekins & Max-Neef, 1991, p.197).

Fundamental human needs, self-reliance, and organic articulation are the three conceptual-pillars supporting the Human Scale Development. These pillars are founded on the presence of social actors, social participation and local communities, heterogeneous perspectives and democratic values. The practice improves well-being via the human needs by promoting a flow of value-change from the micro-level of individuals and local communities upwards to the macro-level of the state. The Human Scale Development practice a bottom-up approach of social-values to improve the human needs within an ecosystem (Max-Neef, Elizalde & Hopenhayn, 1992).

The researchers of Human Scale Development did in-depth research on the human needs and came up with nine universal fundamental human needs; Subsistence, Protection, Affection, Understanding, Participation, Leisure, Creation, Identity and Freedom. These human needs are applicable regarding culture or time. Because they are interrelated and interactive, human needs are understood as a system without hierarchy with a sole exception of Subsistence. Satisfiers are the values which render the human needs at different levels and intensities. One satisfier can fulfill multiple human needs. In contrast to the universality of the human needs, the satisfiers are depending on norms, values, culture and time. An example, of a satisfier can be a product, service, activity, information, capital, state of mind, institutions, law, space & time (Max-Neef, Antonio & Martin, 1992).

The Satis-action method has parallels with Human Scale Development. Both aim on interdisciplinary solutions for complex problems using interactive workshops with professionals. Also both methods change the dialogue perspectives by rewriting the discourses of the problem and context. In the Human Scale Development by going from an economic discourse towards a more socio-political discourse, while Satis-action changes from a business-organisational discourse towards a story-theatrical discourse. Both methods use system dynamics and focus on a person in the centre of a surrounding system and use satisfiers to achieve improvement of human needs. The contribution or exchanged values by the characters in the Satis-action method are closely connected to Max-Neef's satisfiers.

There are also differences between the methods in the scale and state of the system. Where Human Scale Development aims for improvement of people and communities within a hierarchical, patriarchal state-structure, Satis-action aims for the improvement of specific individuals or persons within a democratic and more participatory organised state.

Because of the extended research on the Human Scale Development and the apparent resemblance of the two methods, the knowledge and experience of the Human Scale Development method inspired for the creation of the preliminary lenses in this research (inspired by Max-Neef, Elizalde & Hopenhayn, 1992).

- (1) Satis-action creates a creative vibe between professionals wherein it is possible to work on a common goal.
- (2) Satis-action creates synchronisation of the activities of the organisations in the specific case.
- (3) Satis-action makes the subject matter tangible and sensible.
- (4) Satis-action visualises the core values of the ecosystem.
- (5) Satis-action creates a creative environment between organisations to reach a comprehensive solution.

Sustainability Development

The United Nations addressed sustainability development as the opportunity to create satisfaction of human needs for all people with positive impact on everything, now and in the future (Brundtland, 1987). Social, ecological and economic development are three conceptual-pillars supporting sustainability. There has to be connection and interaction among these pillars to create a balance in sustainability (Brundtland, 1987; Hutchins & Sutherland, 2008).

Business processes are about input, throughput and output. By reconfiguring physical substances, human resources, information, and financial resources, the business process is gaining profit. To be sustainable in this profitable business process means that businesses create the profit without a negative impact in or on society nor the environment. A businesssystem can be measured and controlled by Life Cycle Assessments (LCA) considering raw material extraction, manufacturing, distribution, use and recycling. Key elements in LCA are analyzing the controls over, organisation of and actions in the life cycle. The life cycle can be visualised in a process flow, the exchange of values between organisations within a given system (Hutchins & Sutherland, 2008).

In their research, Hutchins and Sutherland (2008) made a connection between the pillars while doing research on social sustainability and the supply chain decisions of corporations through input-output modeling. This research contributes to the development of methods and tools which can assess the balance of sustainability within a given system.

The Satis-action method and the research of Hutchins and Sutherland (2008) use the same input-output modeling and visualise the exchange of social and economic values within a constellation of organisations. Both search for a concept to measure the balance in the system and are founded on the focus on human needs. The difference is the quantitative approach of the research of Hutchins and Sutherland with social and economic statistics of a country and the qualitative approach of the Satis-action method with the story-theater metaphor. Where Hutchins and Sutherland look for a change in the economic discours, the Satis-action method strive towards a cultural discours.

Because of the in-depth research on the Sustainability Development and the apparent resemblance on the Satis-action method, the conclusions of Hutchins and Sutherland inspired for the creation of the preliminary lenses in this research (inspired by Hutchins & Sutherland, 2008).

- (4) Satis-action visualises the core values of the ecosystem.

Circle 3

Collecting Data and Preparing Descriptive Reports

Cycle 3 is the first cycle where the researcher engages with others. It also closes the cycle 2 processes because the engagement of the researcher will be influenced by others from now on. To engage with others the researcher collects textual data from interviews, articles and conversations and analyze these in a proper form which fit the research topic. Often by rewriting the text into summaries or stories but sometimes the story needs its integrity and remain as descriptive text.

The data collection during the tests are videos and pictures shot during the Play, pictures of the characters and constellation after the Play, questionnaires filled in by the participants and an interview of a process manager of the Veiligheidshuis. The collected data gives an impression on the practice of the Play, the constellation of the system around the subject matter and the experience of the Play by the participants.

To analyse this data in focus on the research questions the questionnaire data was processed into tables and list overviews. The answers from the participants questionnaires were coded in English with the use of topic words from the satis-action method. The coded datasets were categorised by expectations, organisational vision / perspective, experience of workshop and differences in meeting. The researcher immersed with the coded datasets and re-wrote the data in lines of text. These text lines were arranged and rewritten into a summary report.

The different scenes which unfolded during the Play were reconstructed. These reconstructions were summarized into visualisations. The visualisation was designed during the research for the purpose of the report, but can be useful as a record of the meeting for the participants as well.

Data summary report case Veiligheidshuis

The Satis-action method and accompanying tool System Constellation Play XL are tested in a kickoff meeting for a case at the Veiligheidshuis organisation. The participants were informed about another setup of the meeting in a workshop with the use of some kind of role-play. In this data summary report the 'Play' refer to the practice of the satis-action method and accompanying tool System Constellation Play XL. The standard kickoff meetings of the Veiligheidshuis organisation are referred to as 'gatherings'.

Summary on questionnaires case Veiligheidshuis

The constellation of characters, central figures and satisfiers accurately visualises the stands, relations and dynamics in the case. The visualisation gave a clearer view and awareness on the case, created more empathy for the central figures and made the case more sensible. A foundation for a clear case was constructed.

The Play made the meeting different from other gatherings. Participants became aware of the possibilities and impossibilities of the characters and the opportunities for another contribution from their own characters. The Play created an active and lively involvement of all participants. It also took more time, therefor it is not desirable to use the Play on every case.

The Play brought more insights and awareness by a tangible interaction, visualisation of the whole system, position and perspective of the characters and the time for a dialogue to explain the stand of the characters. The dialogue took a deep dive into the case more quickly then during normal gatherings. More relevant questions were discussed due to the Play.

Every participant prepared for the meeting on the information available in their organisation (character). It turned out to be enough preparation for the Play. A blank start and fresh look created insights, awareness and understanding for new activities, according to the interviewed participants.

Some participants had no expectation beforehand while others had 'other' expectations over the announced role-play. All participants experienced the Play to be educational, empathic, more active, more fun and innovative. Participants became more active and engaged in the dialogue. One participant found it difficult to become specific.

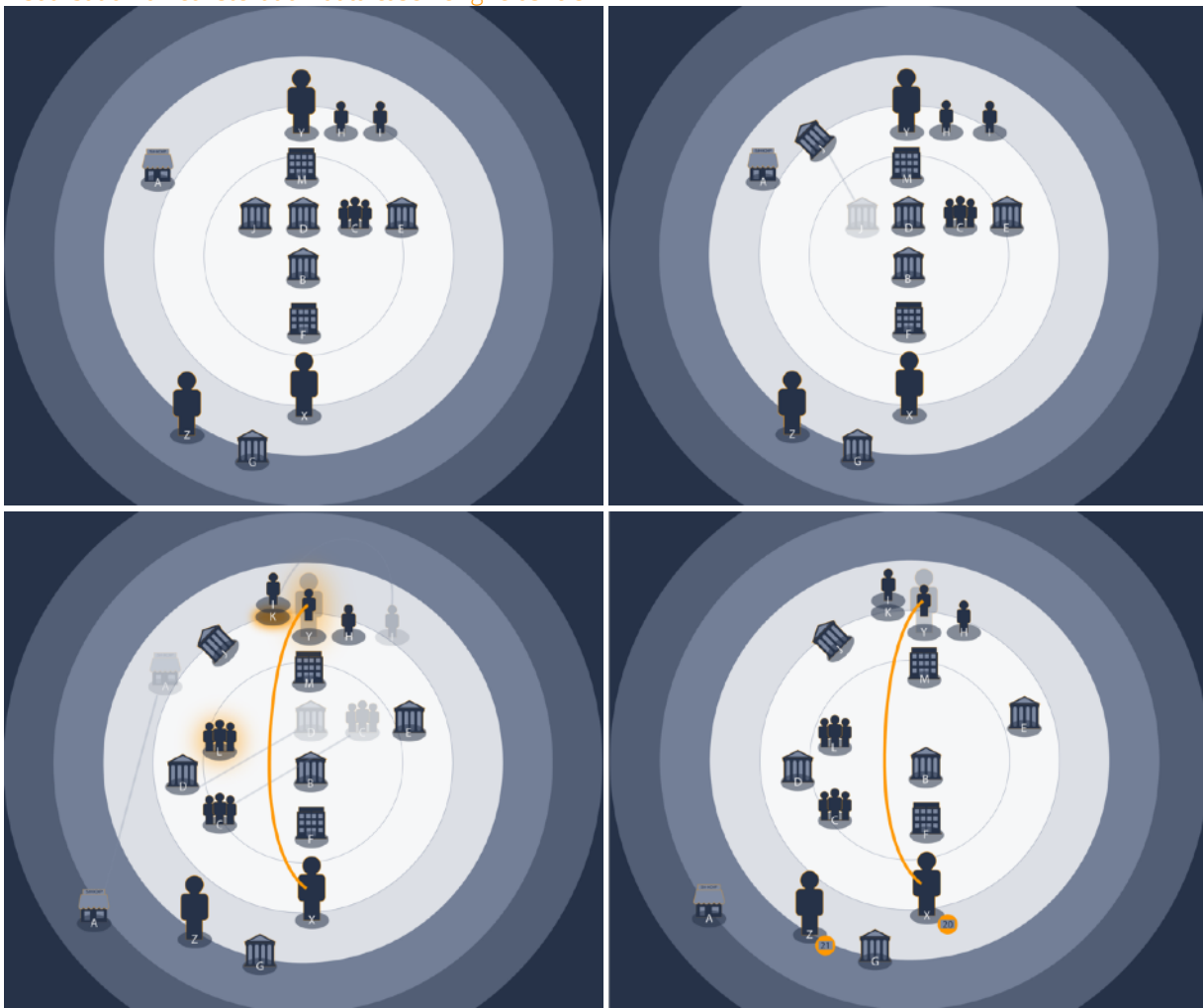
Looking from the perspective of the characters, two participants will advise their organisations (characters) to change the stand in this case, while two others will advise to hold the current position. The arguments for this advice differ by the four participants:

- i. There is not yet changed anything (from perspective of specific character),
- ii. the intervention (of one specific character) is ongoing with positive results,
- iii. a new activity is reconsidered by a character;
- iv. the swap of artefacts of the central figure changed the perspective on the case by a character who also noticed an unexpected response from another participant.

The data shows the participants are reasoning as characters. For some characters their stand changed during the Play, consequently the dynamics in the Play changed. Others were aware of these dynamics and after consideration decided to keep their current stand. The Play contributed to a well-considered choice in the stand of the characters.

The different approach by the Play gave the participants insights in the different characters, the dynamics between the characters and an awareness on the whole case. The case became clearer, more sensible and brought more focus on the central figures.

Visualisation on constellation-data case Veiligheidshuis



Data summary report case Armed Forces

The Satis-action method and accompanying tool System Constellation Play XL are tested in a kickoff meeting for a case at the Royal Netherlands Armed Forces. The participants were informed about another setup of the meeting in a workshop with the use of some kind of role-play. In this report the 'Play' referred to the practice of the satis-action method and accompanying tool System Constellation Play XL. Standard kickoff meetings are referred to as 'gatherings'. The 'respondents' refer to five participants who hand in the second questionnaire.

Summary on questionnaires case Armed Forces

The participants were asked to fill in a questionnaires before and after the Play. According to the organisers, about two third of the involved organisations was present. Also some not invited but interested organisations were present. One response is a missing value because only a third of the questionnaire was filled in.

The constellation of characters, central figures and satisfiers accurately visualises the starting point of the stands, relations and dynamics in the case. The visualisation gave a clearer view and awareness on the constellation and created a more common goal for the case. A foundation for an effective collaboration was constructed.

The Play made the meeting different from gatherings according to the respondents. Participants became aware of valuable contributions by the different characters. The Play created an active environment where the participants together established character positions and worked on awareness on the case.

The Play brought understanding on the context of the case. This resulted in concrete steps, agreement under participants, a pretty clear scope and involved participants. The Play brought new insights of opportunities and threats on the project, for example lack of available time and some reserve by participants about the flexibility of characters to change perspectives on the concept.

The dialogue created awareness and understanding on the starting point of the constellation. Insights on missing characters and more understanding among the respondents through which they could specify missing characters in more detail.

The lexicon in the dialogue and questionnaire changed. For example "choice of roles" by participants and characters instead of "it's their tasks". From a project organisation discourses to a process system-orientated discourses.

The participant prepared different for the meeting. By reading available documentation, talking with involved professionals or some by no preparation at all. No respondent will change their preparation. Starting with an open mind is the best preparation, according a respondent. Participants had a clear understanding on the stand and perspective of their character on the central case.

While beforehand a participant expected a lot of discussion about the solution, participants focused on collaboration during the Play. Participants experienced the Play to be stimulating, positive, refreshing and fun.

Looking from the perspective of the characters, one respondent will advice a change in the contribution of the character. Another will oversee and advice a broader participation of the character in the case.

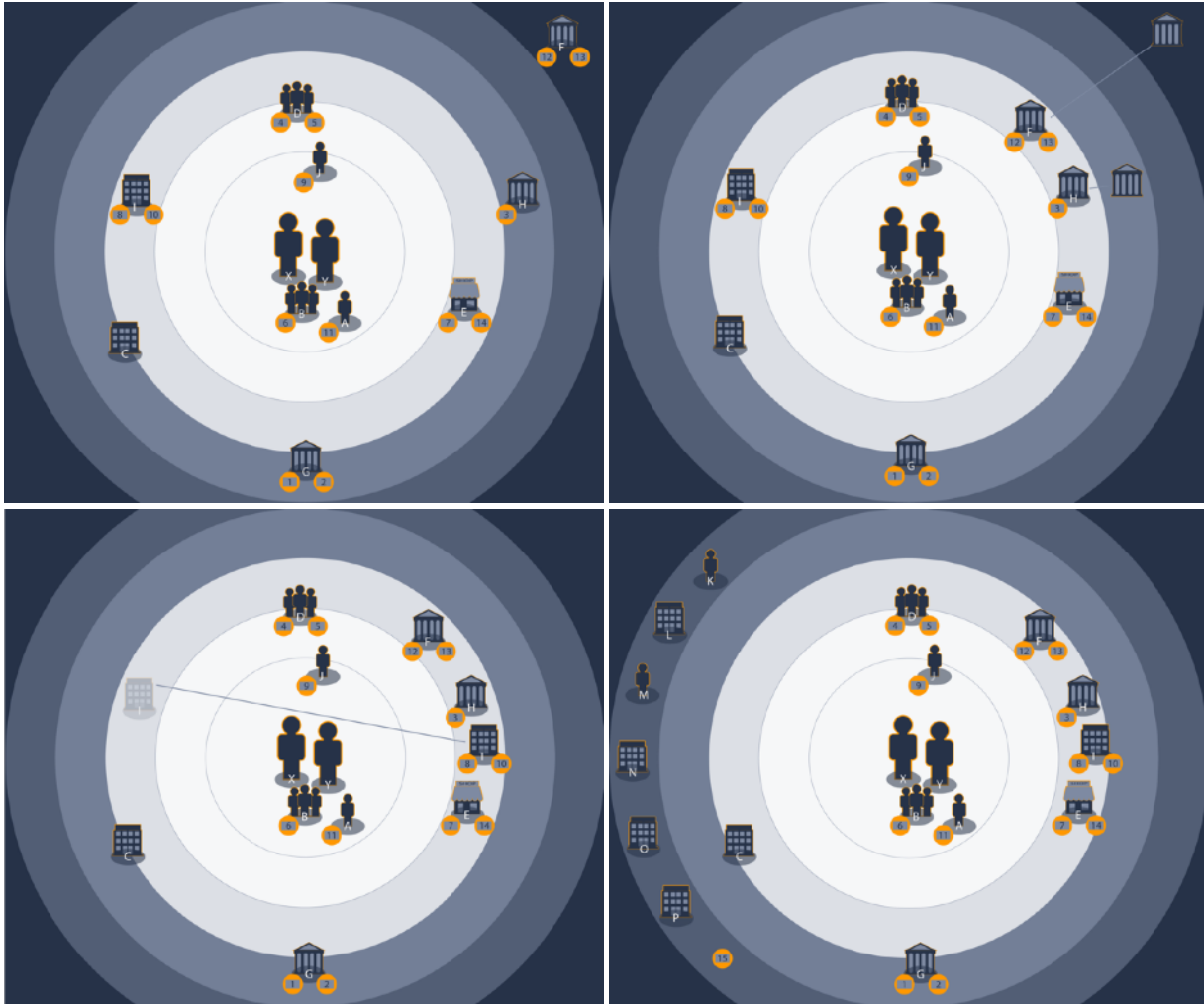
The data shows the participants became more aware of the complexity of the structure of the constellation and dynamics between the characters. Besides the understanding of the constellation, also the focus on the central case improved significant. Participants not only talked about experiments with resources but were also mentioning concept development and start talking about different approaches for a common goal.

The different approach by the Play gave the participants insights in the different characters, the dynamics between the characters and an awareness on the whole constellation. The constellation became clearer, more sensible and brought also focus on the case.

Summary on constellation-data case Armed Forces

The first act started with the introduction and positioning of the central figures X and Y in the middle of the meeting room. The second act started with a task for all participants to construct their character and satisfiers, position the characters relative to the central figure and adapt the position relative to other characters if needed. After 11:00 minutes the third act or dialogue started, and at 47:15 minutes the Play was ended.

Visualisation on constellation-data case Armed Forces



Observations by researcher

Compared with other satis-action workshops, the researcher was more involved because of the double role of chairman and moderator. This was the first time the Satis-action method was used in this double role. Some reflections on the content and process of the Satis-action method.

The video images show that participants choose the position of their character in relation to the central figure and also in relation to the other characters. The moderator started the third act with a question on the position and contribution of a character. Following the conversation from one character to the other, all characters could explain their stand.

An interesting scene took place when a character was moved by another participant. Character F took a position in the backstage because the contribution was only observing. Character H thought this was a too modest stand and he spoke "you belong with us, we need you", while placing the artefact of character F and alongside the other characters in the frontstage. I observed this attribution of partners into the characters and interpreted this observation as the mutually engagement of characters into the case.

Another interesting scene was the engagement of a character towards the central figure. The character B was very enthusiastic and took a position on top of the central figure. Character B felt responsible for the central figure. Where the other participants already distanced themselves from their character to sit around the constellation, the representative of character B remained standing next to his character with full devotion to the character and the central figure. This brought energy into the Play and a sense of urgency to the case.

This scene also start me thinking about the the meaning of the central figure. In this case the central figure was a capability. This was not right chosen. In this case it had to be character B with the need for a new capability, not the capability itself. The satis-action method has to be about fulfilling the need of a special character.

In the end of the dialogue missing characters and satisfiers were discussed. The artefacts were not used to bring these missing characters and satisfiers into the Play. This felt right because this scene was part of the closing act and the meeting was running out of time, participants had to leave.

The case was far from clear, it really was the first meeting with this group where most where not involved up till that moment.

What stands out in this Play is the common picture of the problem and the possible solution. The complex environment in which is being worked on the case makes it a wicked problem. The participants were generally at ease at the start of the Play. In the second act they start to see the value of a tangible and sensible constellation and an in-depth dialogue on collaboration followed. The enthusiasm of the chairman, support of the organiser, service to the central case and curiosity of the participants contributed to this. As participants stated in a quick response with the chairman after the meeting.

Circle 4

Transforming and Refining Lenses

The summary reports give an overview of the observations and experiences of others on the research topic. These observations and experiences of others are processed in the summary reports. In cycle 4 the researcher transforms and refines the lenses by the incorporation of these summary reports.

The summary reports were analyzed and divided into data-chunks. The data-chunks were categorised by themes. In this process the researcher emerge with the data-chunks and has played with different themes and models to bring a comprehensive relation with the research topic. This resulted in reflections about the experience of the Play from the perspective of the participants. This reflections are about the satis-action method and two tools used in the Play. The second tool was *System Constellation Play Small*, a tool used in an early design iteration of the *System Constellation Play XL*. The reflections are described in four stages; scrip writing, scenery, dialogue and closing act.

Reflections

Script writing

Some improvements on the preparation and invitation can be learned from the feedback of participants. The invitation needs to prepare the representatives and needs to establish a common ground as starting point. The data also showed the usefulness of an "open mind" to get a "fresh start" for the case. The invitation has to be brief but clear. Like a script which summarise the storyline and cast design (McKee, 2014). This script is not yet a structural part of the satis-action method.

The kickoff meeting is produced by the initiator, organiser and moderator. These producers did meet in 'writing sessions' prior to the kickoff meeting to get the right focus and perspective on the case. These sessions can be used to write the script.

The introduction of the central figure needs more attention because it is time consuming to build up the problem and problem context from scratch during the Play. Implementing the writing sessions as part of the satis-action method will establish a more common ground to start from and decrease the time spend on the Play.

The writing sessions were supported with the *System Constellation Play Small* and an interest-matrix. Based on the available information the central figures, needs, characters and satisfiers were set. This gave the producers an insight in the expected stands and contributions of the most relevant characters and a view on the complexity of the case. This create awareness by the producers to make a founded decision on the invitation of organisations and the priority of the case.

A meeting with an invited organisations beforehand was found useful and common in the past. This one-on-one engagement was not found necessary during this research because the Play made it possible to engage without prior information and an open mind.

Both cases showed the successive need for engagement on tree levels of the involved organisation. The direction and approval on the collaboration by strategic leadership. The support with resources by middle management and a competent and creative performer by operational level (Steketee, 2007). Depending on the phase of the case, an organisation is represented by one or more of these levels. The script needs to inform the organisations on the expected level of the representatives because it needs to fit the phase of the case.

Scenery

The satis-action method works around central figures. The central figures did not represent the subject matter in the case, as assumed during the research. The central figures has to be the representation of the person, group, community or organisation which will be effected by the satisfiers. This character had a problem or was in the middle of a problem context. The central figure has to be the representation for the character who's needs are to be fulfilled.

The system environment could be seen as a scenery around the central figures. The characters act in this scenery and were represented by one of the professionals who practice the Play. Characters were artificial entities which only exist in the system, mostly as organisations, groups, communities or officials. The participating professionals were subjected to experiences, emotions and opinions. They also held a frame of reference from the organisation they represent. These characteristics provide the participant with insights, empathy and ability to create awareness and meaningful interventions in the case. Participants were able to reason as characters during the Play.

The satisfiers were part of the scenery and made the contribution of the characters sensible. Satisfiers did visualise the activities and effects in the scenery. Satisfiers as coins supported the interactive dialogue while satisfiers as abstract phenomenon supported the language and the discours of the Play. Participants could see what others contribute and could identify what was missing as a contribution.

Dialogue

Communication is more than words and one-liners, it is also embodiment, visualisation and other artistic expression. The Satis-action method brought a story-theater discours into a bureaucratic discours of agencies and governmental organisations (Du Gay, 2000). The participants communicated with artefacts and start using a process and system orientated language instead of a project language. The Satis-action method and the use of pre-designed tools create a more general language where participants from different disciplines could build a communication-model (Terlouw & Van Twist, 2014) and gave meaning to the same object and subject. The communication took place in the dialogue.

The dialogue gave a voice to the characters and brought the scenery to life. Participants became engaged during the dialogue. They were involved, offered solutions and advised others about their contribution to the case. Due to the dialogue the participants spoke sooner with each other and asked in-depth question on the case.

The Play of scenery and dialogue made the participants aware of the dynamics in and around the case. The scenery gave the participants an overview on the position of the other characters. During the dialogue the participants explained the perspectives, contributions and the intentions of the characters. They connected characters and contributions and got insights on the causalities in the problems of the central figures. The participants became aware of the interdependency between the characters, satisfiers and central figures.

This awareness resulted in a more common goal. In the case Veiligheidshuis even in a comprehensive solution. The dialogue created awareness and understanding in de interdependency within the scenery. The Play resulted in a foundation for collaboration.

The Play was found active and stimulating but the dialogue also took a lot of time. Time is an important criteria for some middle management of participating organisations. Although fruitful, the method will only be applied in complex case. A case was described complex if it is to complex to handle in the experienced network-structured environment, the environment of involved stakeholders is multi-disciplinary or when stakeholders are involved who are not yet competent to work in a network-structured environment.

The satis-action method was tested on the level of the performer. For the case Armed Forces this was found wrong because the middle management of the organisations was represented. The satis-action method was designed with questions on values for the strategic leadership and questions on contributions for the performers. It is not yet equipped with questions on support of resources for the middle-management.

Closing act

"Each story must find closure for itself" (McKee, 2017, p.141). The end of the Play of this research did not have closure. There were open endings on the next step, next meeting and to-do's for the characters.

The participants and organisers missed a report of some form which they could show their organisations and colleagues. A record to look into for follow-up activities and to prepare for the next meeting. The satis-action method was not designed to record the Play. This was found a lack in the method and tools.

During the research different overviews are created with the use of the shapes of the artefacts. Other overviews were created using an interest-matrix. These overviews and the *System Constellation Play Small* can be used to record the Play in the future.

Lenses

Others have spoken to the researcher in this loop of the hermeneutics circle via the feedback. The researcher reflected on this feedback in a language familiar to the discours of the satis-action method. With the reflections and the discours the preliminary lenses can be refined and presented in a tri-part way: new, changed and seed lenses (Esbjörn, 2003; Esbjörn-Hargens, 2004).

"New lenses signify breakthroughs in understanding that were entirely new and unexpected, change lenses signify a significant progression of change from lenses presented in Cycle 2, and seed lenses signify lenses that were nascent in the lenses of Cycle 2 but greatly nuanced and developed in the course of the intuitive inquiry" (Anderson, 2004, p.322-323).

new lenses

[6] Satis-action needs improvement in the writing sessions and closing act by scripts and records.

Emerging with the reflections of others, the book of McKee (2017) and the observations as a moderator brought about the importance of a thorough preparation of the Play and a effective documentation of the insights by the Play. Script writing fits the Satis-action method and this unexpected insight. McKee (2017) can give inspiration for a effective closing act with effective recording of the Play.

[7] Satis-action can be a learning tool for professionals unfamiliar with working in a network-structured environment

While not all participants were used to work in a network structured environment they did understand the dynamics quickly. Some participants even asked for the application of the satis-action method in their organisation to let their colleagues experience the dynamics and explain the specific case.

changed lenses

[1] Satis-action creates meaningful communication between professionals towards a common goal.

Participants in both cases were more engaged and involved. They were taking different perspectives and were really listening to each other.

[4] The Satis-action tools visualise the systemic structures and dynamics around the problems and needs of a person, group, community or organisation in a specific case.

The Play can be applicable on the strategic leadership, middle management and operational level of organisations. Every level has its own focus and as a result other questions. In this research the satisfiers made the contribution of characters clear because the operational level was involved. It made the resources clear because of the involvement of middle management. Satis-action has potential to clarify the core values if the Play is practiced with strategic leadership.

[5] Satis-action creates a creative environment between organisations to reach the needs of a person, group, community or organisation in a specific case.

The creative environment only sets the scenery, the professionals create a common goal and a solution. Satis-action is just the instrument to create insights for the professionals. The dialogue was the stage where participants start understanding the whole case.

seeded lenses

[2] Satis-action supports coordination and synchronisation of activities on a common goal by collaborating organisations.

After establishing a common picture of the whole case, participants were more able to create collective action and coordinate activities with each other without the guidance of the organiser or moderator. Because the case was more clear for the participants they could also understand the most effective and efficient way to intervene for a more satisfied need for the central figure

[3] The Satis-action tools creates tangibility and sensibility of the problems and needs of a person, group, community or organisation in a specific case.

The satis-action method gives a language and discourse in which the participants can work together on complex issues in a multi-disciplinary environment. The tools make this discourse visible and tangible. The tools are adding another type of language to the method. Together the method and tools are a great instrument to communicate for professionals working in a network structured environment.

The Satis-action method is not a method to analyse problems, nor does it generate solutions. The method can support the involved actors to become aware and to understand the reality around a central figure using their knowledge and wisdom. It provides participants a learning environment for other perspectives and challenge them to take a stand.

Circle 5

In the last circle of intuitive inquiry the researcher looks to the whole research. What happened in the first loop of the hermeneutics circle with the engagement of the research topic and the literature reviews? How did the mind of the researcher change during the conversation and confrontation with others and their perspectives?

Reflection on the research topic

"Once people begin to act, they generate tangible outcomes in some context and this helps them discover what is occurring, what needs to be explained and what should be done next" (Weick, 1995 p. 55).

After the research I rewrote the research topic in line with research questions on the Satis-action method. One sentence summarizes the answer on the research question. An answer to understand the evolvement of the researchers mind through this research.

When professionals setup the scenery and performing in a dialogue, they generate the awareness and activities within the system constellation and this helps them to discover what is the situation of the central figure, what are the dynamics around the central figure, what needs to be explained to other characters and what should be done to improve the need of the central figure in a sustainable manner.

Reflection on the researcher

During the cycles 1 and 2, I was inspired and found all kind of insights which supports the method and tool. Not only from literature which inspired during the design in M1.1 but more in-depth in system dynamics, development studies and the humanistic view on organisations. This created a more realistic view on the effectiveness of the Satis-action method.

During the design phase I thought I created a new discours with the method and tool. Satis-action would be useful and understandable for everybody working in complex cases. The literature showed the difficulty to set a different discours for professionals. Also the short sighted thoughts of the researcher. Why should this solution be the holly grail of change, the tool for harmony between organisations and the way to reach a world with shared resources for every being on earth? Nobody can changes the world alone, systemic change already explained this in more detail. The first loop learned me to focus on the core of the satis-action and therewith the focus in this research.

Reflection by others

Reality showed the appreciation of the method and tools by others. The interactive approach, use of tangible artefacts and the willingness of professionals to get out of the comfortable 'around the table meetings'.

Participants feel connected by the tools. The accessibility of the simple artefacts and respect for the competences of participants contribute to the engagement of the professionals with the research, case and each other.

During the Plays I learned a lot about the different approaches of coaching and guidance of participants through the process. The interaction with the participants made me understand the need for a more consistent method from scratch to the follow-up meeting. This will be integrated in the next design iteration of the method and tools.

Reflection on the transformative practices

Satis-action is a method which can be used in the transformative practices and can be useful to support the process of solving wicked problems. It creates a general language for all kind of persons involved in the issue and can be used on different levels of co-operation, co-design, co-creation and collaboration.

New explanation on satis-action

Satis-action is a method to improve the collaboration between organisations on wicked problems in a complex environment. The method uses characters and satisfiers to create a scenery of a complex environment around a the central figures, a special character with needs and wicked problems. The dynamics in this scenery are brought to life in a Play by a dialogue. The Play brings the constellation of central figures, needs, characters and satisfiers to life with respect for a sustainable environment.

The tools *System Constellation Play Small* and *System Constellation Play XL* are designed to make the Play tangible and sensible by professionals who are representing the characters. The characters are artefacts for persons, groups, communities or organisations who are engaged to improve the need of the central figure.

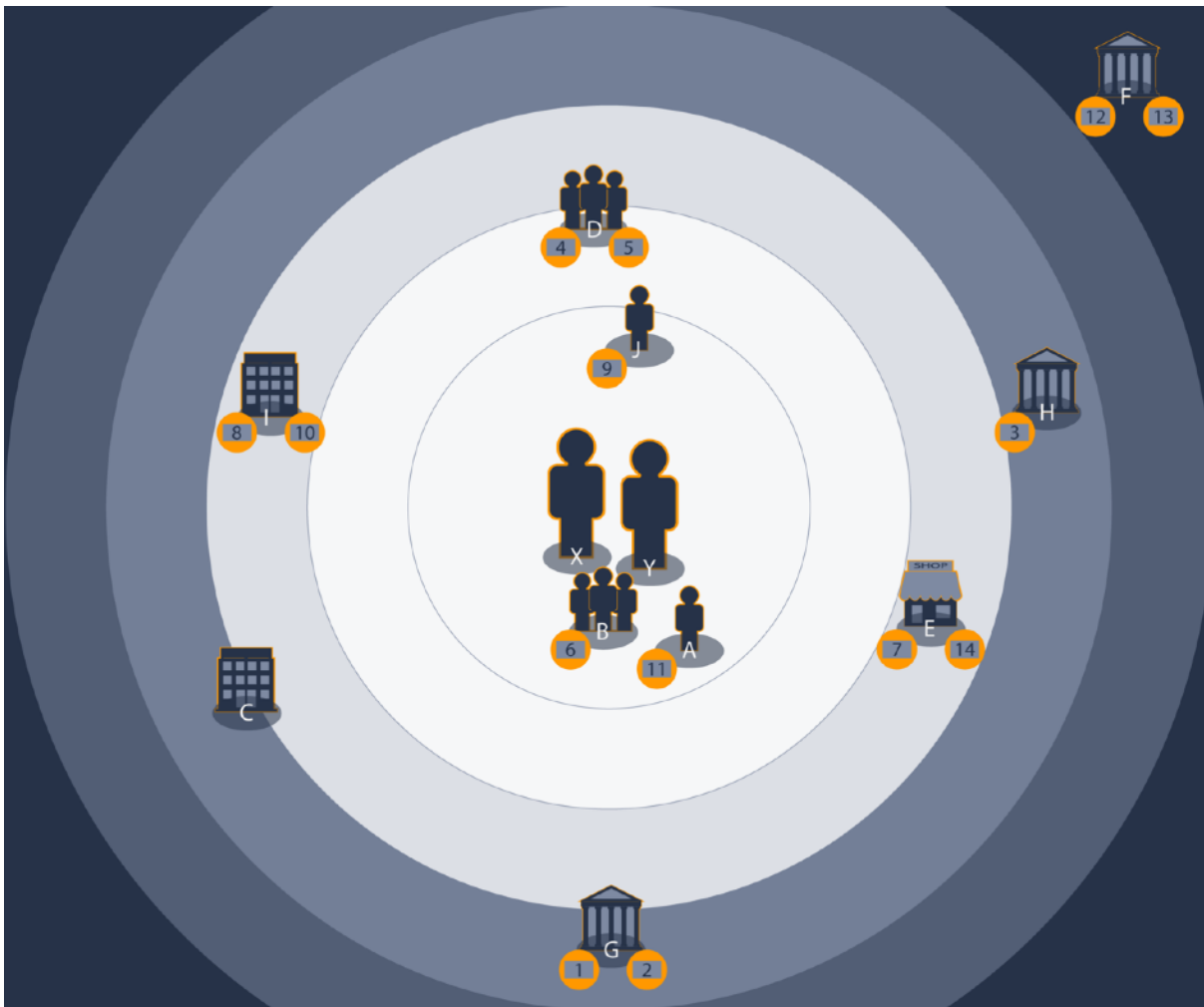
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Attachements

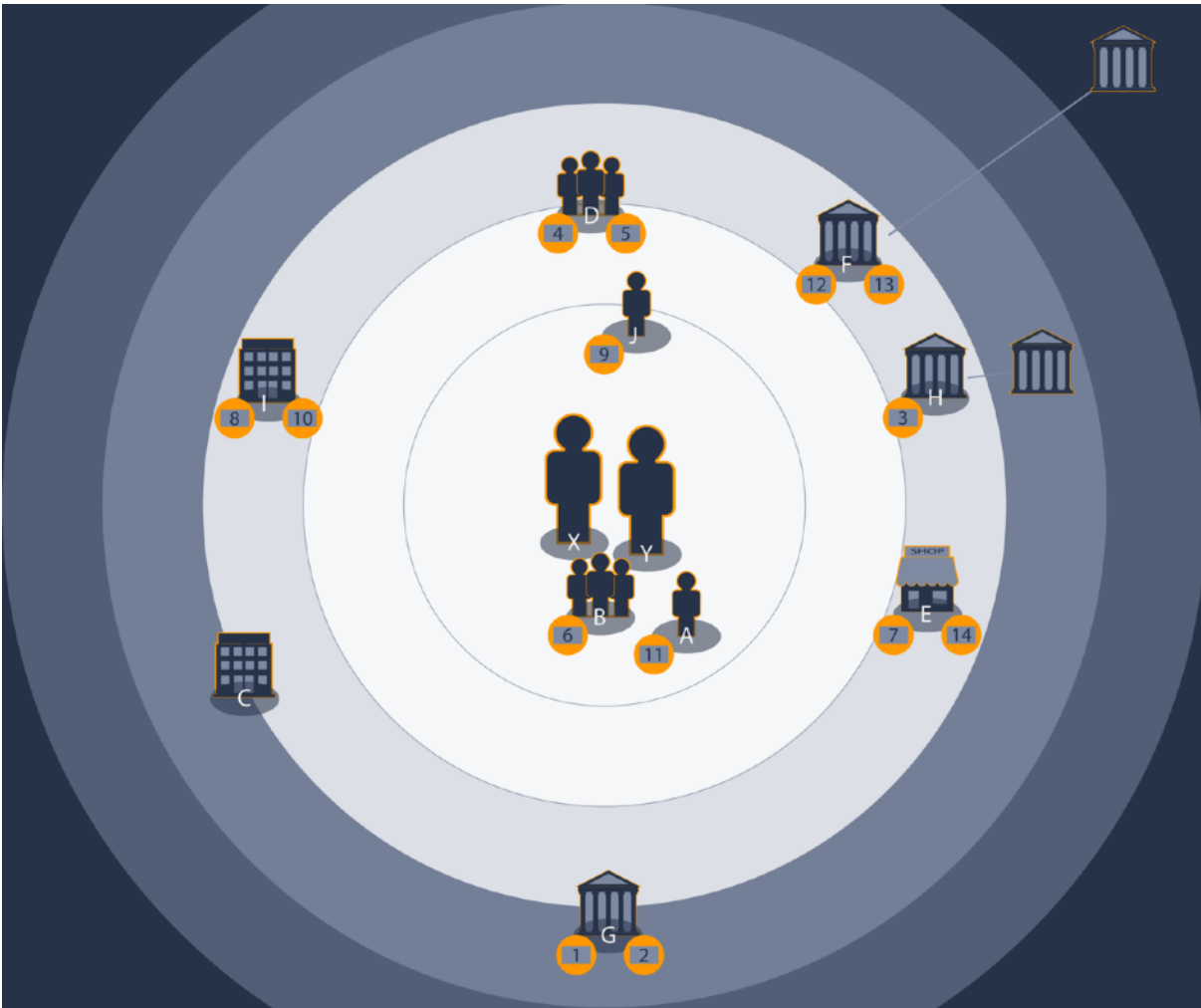
1. Visualisation on constellation-data case Armed Forces



First scene 11:00 (barcamera)

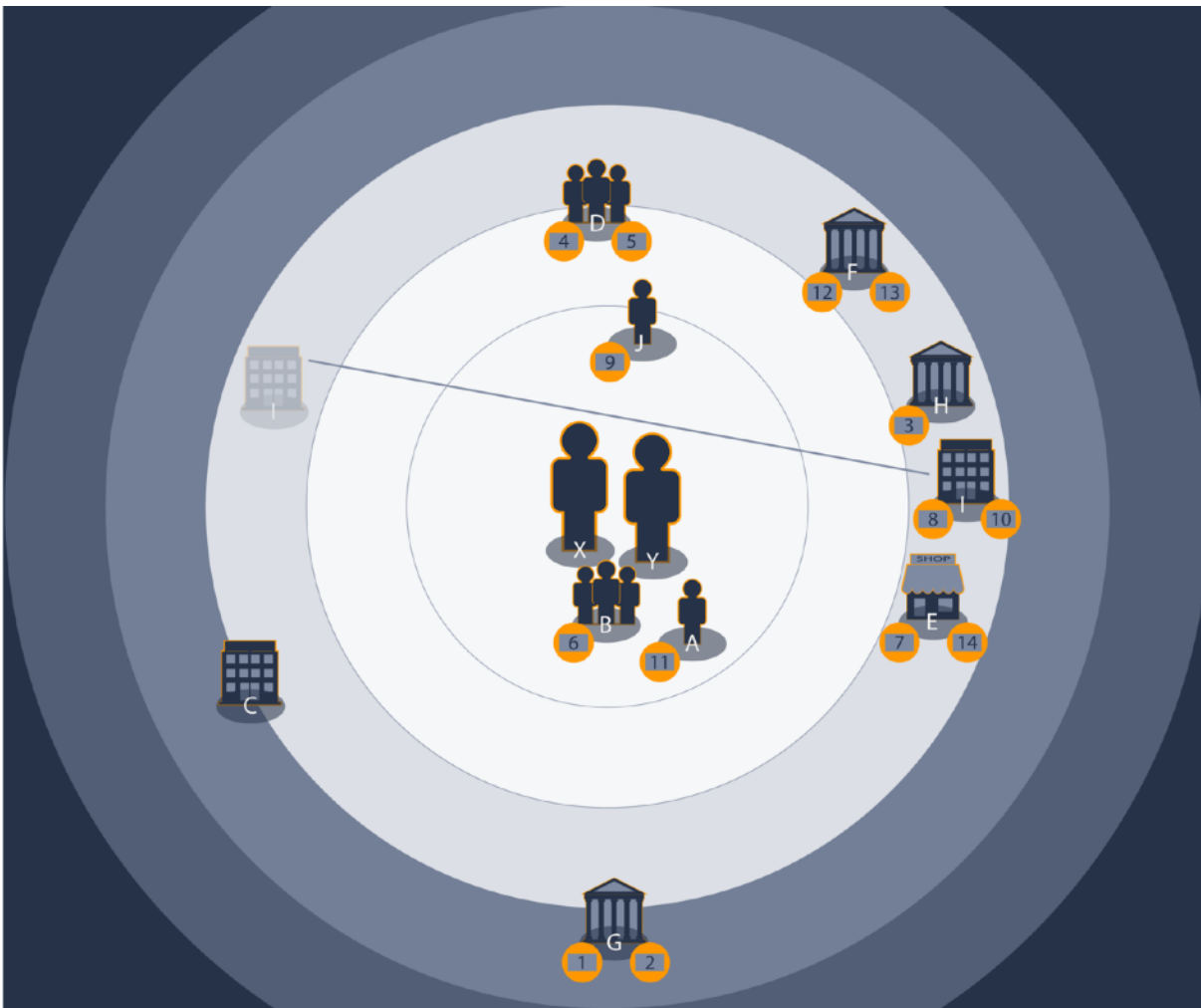
Notable is the position of character H outside the primary playing field. Also all the characters keep their satisfiers on their own artefact. Participants asked what to do with the satisfiers and the moderator gave the participants freedom to do what they feel right.

Characters B and A are almost on the central figures as off they feel really responsible or even want to replace the central figure.



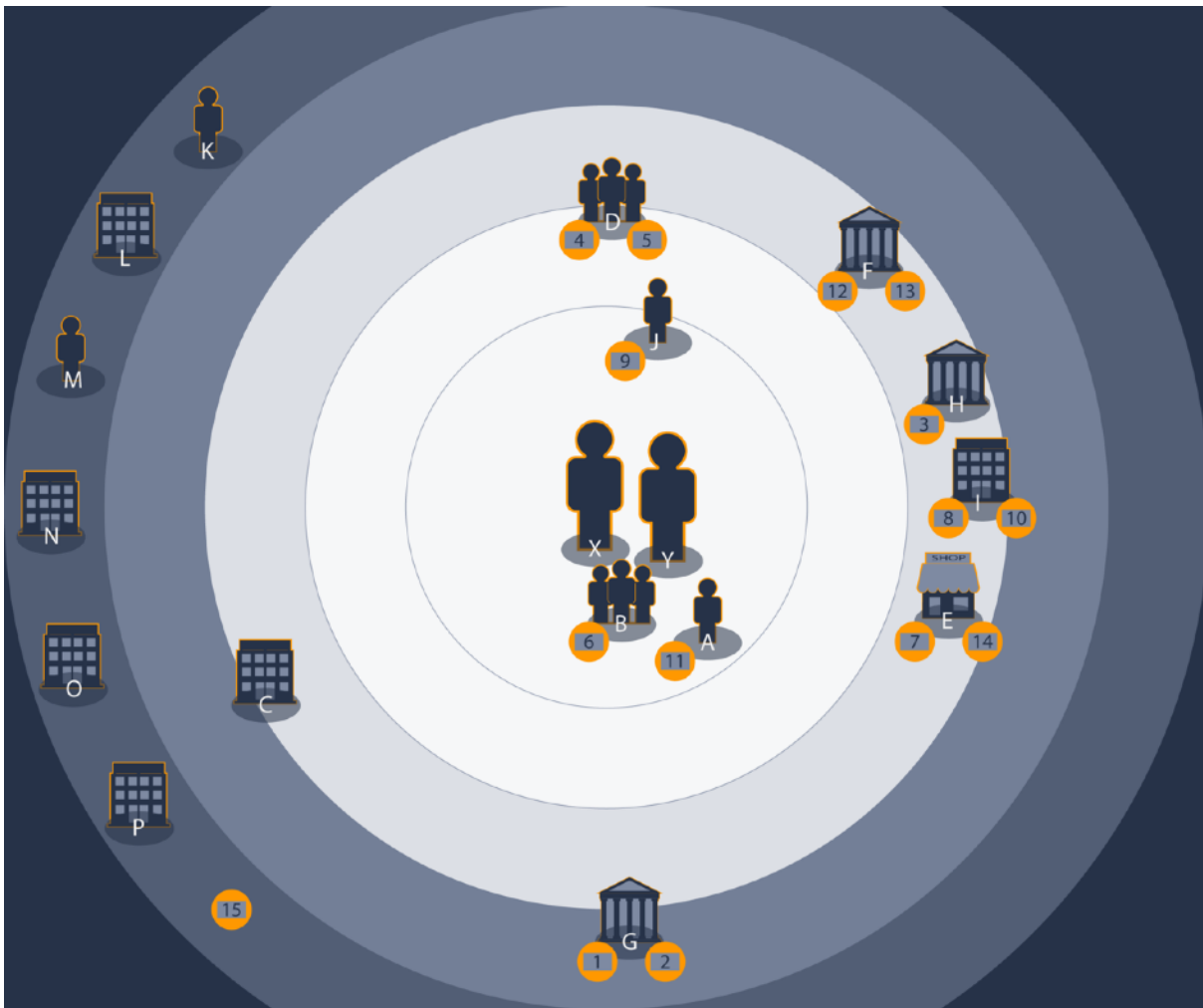
Second scene 25:30 (barcamera)

Character F is set into the playingfield by character H. Character H was already slightly moved towards the central figures due to the remarks of character B.



Third scene 29:15 (barcamera)

Charachter I moved to the other side of the playfield next to character E and H.



Last scene 47:15 (barrcamera)

Closing act

The Play resulted in six characters and one satisfier which are missing in the current constellation according to the participants. They will be invited into the case.

2. Visualisation on constellation-data case Veiligheidshuis

