

Balancing Specializations and Teamwork in Creative Organizations – How the Game Industry organizes proactive Perspective-Taking

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Abstract

The game industry is a comparatively young but steadily growing branch within the entertainment sector and the creative industry. The continuing growth has led to large-scale development projects with big teams in which highly specialized experts from different disciplines collaborate with each other. In this paper, we ask how game companies provide structures that help overcoming potential areas of conflict in teamwork, or, to be more precise, how they balance the specialization of the disciplines involved and the teamwork needed to implement a unified product. We found that the organization of empathy and perspective-taking plays a central role, and that the development of a common design-vision as well as the special form of coordinating the communication and empathic cooperation in the game industry leads to successful teamwork.

Keywords: professionalization, game industry, perspective-taking, empathy, teamwork, creative organizations.

1. Introduction

Game developing companies are part of a new industry, which in recent years has strongly been driven on its own professionalization. Various art, IT and design professions have been developed, including the setting up of specialized academic education programs and institutions for disciplinary and interdisciplinary knowledge exchange. Additionally, the organizational settings of game developing companies have been subjected to substantial changes in order to cope with the complexity of large-scale (and long-term) development projects, and in particular with the coordination of interdisciplinary design and development processes.¹ These processes cope with setting up highly specialized creative tasks, e.g. doing artwork, level design and coding, as well as with the embedding of these creative tasks in an overarching collaborative workflow in order to guarantee a unified final game design. As a result, a central problem of organizational professionalization in the game industry is to create organizational systems that balance creative specialization and joint teamwork on a daily basis.

¹ Ted F. Tschang: *Videogame as interactive experiential products and their manner of development*, 2005, in: *International Journal of Innovation Management*, Vol.9, No.1, pp 103-131

Game sector research has focused on how the more rational focus on productivity overtakes the initial creative tendencies in game companies², on the economic effects of a developer's connectedness in the electronic game industry³, on high employment flexibility of video game development companies⁴ and the game industry's widespread effects on technology.⁵ In this paper, we study the role of perspective-taking in game development. Considering that game development involves both a variety of differently specialized disciplines and intensive teamwork, we analyze in particular the mechanisms used by the game industry to balance between specialization and teamwork throughout game development projects. We conducted expert interviews⁶ with 24 German and 1 US-American industry representatives of all disciplines involved in game development and analyzed them on the basis of the grounded theory approach.⁷ We found, that perspective-taking as the ability of taking over someone's point of view and empathy as the crucial social competence that enhances perspective-taking are the two core categories which coordinate the design process in game organizations and contribute to successful products.

Perspective-taking is a term that stems from the role-theory of George Herbert Mead⁸ and describes the ability to place oneself in another self, to see the world from the other one's point of view. Empathy is "a way of perceiving and knowing and a way of being connected to other consciousnesses by which individual human beings gain access to the inner worlds of other individuals and to the workings of relationships, and whole ecologies, of which they are but parts".⁹ Empathy is an individual competency that enhances our ability to take over other perspectives.

Indeed, ergonomic and labor psychological approaches have stressed the

² Ted F. Tschang: *Balancing the Tensions Between Rationalization and Creativity in the Video Game Industry*, 2006, in: *Organization Science*, Vol.18, No.6, pp 989-1005

³ Jörg Claussen; Oliver Falck; Thorsten Grohsjean: *The Strength of Direct Ties: Evidence from the Electronic Game Industry*, 2010, in: *Münchener Wirtschaftswissenschaftliche Beiträge*, Vol.8

⁴ Christina Teipen: *Work and Employment in Creative Industries: The Video Game Industry in Germany, Sweden and Poland*, 2008, in: *Economic and Industrial Democracy*, Vol.29, No.3, pp 309-335

⁵ Catherine Lyons: *Video Game: Evolving from a Simple Pastime to One of the Most Influential Industries in the World*, 2010, in: *Undergraduate Research Journal at UCCS*, Vol.3, No.1

⁶ See Alexander Borgner et al. (Eds.): *Das Experteninterview – Theorie, Methode, Anwendung*, 2005

⁷ See Anselm Strauß: *Grundlagen qualitativer Sozialforschung*, 1998

⁸ George Herbert Mead: *Mind, Self and Society. From the Standpoint of a Social Behaviorist*, 1934

⁹ Maureen O'Hara: *Relational empathy: From egocentric modernism to socio-centric postmodernism*, in: Arthur C. Bohart; Lesley S. Greenberg (Eds.): *Empathy reconsidered: New directions in psychotherapy*, 1997

importance of proactive perspective-taking and empathy in companies.¹⁰ However, the question remains in how far the organization may influence implicit competencies like empathy. In order to find out more about the reciprocal relationship between company and employee regarding social skills, we focused on two components: the structural and the individual competencies.¹¹ Thus we ask:

- a) How can individual competencies be supported and increased by structural competencies?
- b) Which structural capabilities regarding empathy can companies address? Could we find evidence for them within the game industry?

We suggest that there are aspects that play a central role when it comes to the organization of perspective taking in game companies. In order to create a multidimensional model of the organization of empathy we will develop and conduct a list of criteria that will help to better grasp the role of implicit communicational factors and the way they can be organized.

Therefore, we will first give a short explication of the terms perspective-taking and empathy, which are crucial to this paper. We will also describe structural capabilities regarding the cultivation of perspective-taking in companies. In chapter 3 we demonstrate our methodology and the way we interpret our insights. In the fourth section we give a summary of our empirical findings on the role of empathy in companies and how it is organized within the game sector. In the last chapter, we give a summary and develop concluding thoughts.

2. Structural and Individual Competencies: Perspective-Taking and Empathy

The ability of taking over another person's perspective could be considered as an implicit but basic factor of success for fruitful and reasonable interactions. According to Niklas Luhmann the formation of a system takes place if two or more persons

¹⁰ Just to name a few, compare Cary Cherniss; Daniel Goleman: *The Emotionally Intelligent Workplace: How to Select For, Measure, and Improve Emotional Intelligence in Individuals, Groups, and Organizations*, 2001; Roger Eugene Karnes: *A Change in Business Ethics: The Impact on Employer–Employee Relations*, 2009, in: *Journal of Business Ethics*, Vol.87, Issue 2, pp 189-197; Tobias Schmid: *Empathie in der Personalführung. Eine anwendungsbezogene qualitativ-empirische Studie*, 2010

¹¹ Based on the assumption that structural competencies of organizations and institutions constitute the framework for the development of individual competencies, compare: Amartya Sen: *Development as Freedom*, 1999

meet each other in the field of mutual perception.¹² This system formation is driven by selectivity, for everything is perceived as a selection out of other possibilities: Thus the mutual selectivity is constitutive for the formation of systems. In order to create a reasonable interaction or a common act within this social system, the agents have to be capable of assuming the position of the other agents. That means that the agents in each case have to anticipate the anticipation of the other by taking over each other's perspective or role.

For George Herbert Mead it is a consequence of getting engaged in joint activities and sociocultural practices with others so that we are able to take up perspectives through which we orient ourselves towards worldly events, objects, and subjects.¹³ Mead's perspectival realism can therefore be discussed as a basis for both self-development and social engagement. Furthermore, Mead introduced the terms of "role-taking" and "perspective-taking" to the sociopsychological and sociological debates. Mead points out, that 'role-taking' is the central premise of human action. He describes how the imitation of social roles leads to the development of an individual self: Socialization in his eyes takes place via social interactions within groups and the testing of different roles.¹⁴ The development of the self is dependent on learning to take the role of the other, which is basically a matter of symbolic communication (e.g. via language and gestures). In turn, role-taking requires that we imagine how our behavior will be defined from the standpoint of others. For Mead, role-taking occurs throughout the developmental process by which the self is constructed and refined.¹⁵

We can use the terms "role" and "perspective" interchangeable, as Miller notes: "In his later years, Mead often used 'being in the perspective of the other' instead of 'taking the role of the other.'"¹⁶ According to Mead, a perspective or "mind" is an orientation to an environment that is associated with acting within that environment.¹⁷ The human world is a social world, therefore all perspectives and minds arise and are employed through interpersonal interactivity:

"Mentality on our approach simply comes in when the organism is able to point out

¹² Compare Niklas Luhmann: *Einfache Sozialsysteme*, in: *Seminar: Kommunikation, Interaktion, Identität*, Manfred Auwärter, Edit Kirsch, Klaus Schröter (Eds.), 1976

¹³ See Jack Martin: *Perspectival Selves in Interaction with Others: Re-reading G.H. Meads Social Psychology*, 2005, *Journal for the Theory of Social Behaviour*, Vol.35, No.3, p. 232

¹⁴ Mead 1934 (l.c.), pp 135, 254

¹⁵ See William D. Perdue: *Sociological Theory: Explanation, Paradigm, and Ideology*, 1986, pp 236-239

¹⁶ Miller as cited in Martin 2005 (l.c.), p. 17

¹⁷ Martin 2005 (l.c.), p. 234

meanings to others and to himself. This is the point at which mind appears, or if you like, emerges.... It is absurd to look at the mind simply from the standpoint of the individual human organism; for, although it has its focus there, it is essentially a social phenomenon; even its biological functions are primarily social.”¹⁸

Important for the understanding of other perspectives is the “interpretive theorizing”. It focuses on our common existence as interpretive beings within intersubjective contexts as a basis for discussing and understanding diverse perspectives.¹⁹ Especially after learning to communicate through linguistic symbols, children are able to take the perspectives of an increasingly abstract other, the “generalized other”:

“The organized community or social group which gives to the individual his unity of self may be called “the generalized other.” The attitude of the generalized other is the attitude of the whole community. Thus, for example, in the case of such a social group as a ball team, the team is the generalized other in so far as it enters—as an organized process or social activity—into the experience of any one of the individual members of it”.²⁰

Taking the perspective of the other within the model of “interpretive theorizing” means to engage in interactivity with each other within a certain shared “horizon”²¹ of social practices of acting together. This horizon is embedded in ordinary language, folk psychology and traditions and is therefore largely invisible to us. The more learning possibilities a person had in the past, the more developed is his capability of taking over other person’s perspectives. If someone has many social contacts, communicates often with other people and was often confronted with situations in which perspective-taking is demanded, it is likely that he shows a general higher level of the ability to take over someone’s perspective.²² Thus it could be concluded that perspective-taking is trainable.

Participating in culture, language, and traditions is a condition and at the same time a limit for understanding: Sometimes, we interact with persons who do not share the same background of meanings, norms and values. In this case we have to interpret the situation and life forms of the other persons, we have to try and fuse our horizons in order to understand another person’s horizon. This merging of horizons requires an elaborate form of perspective-taking, which depends on the social competence empathy.

¹⁸ Mead 1934 (l.c.), pp 132-133

¹⁹ Martin 2005 (l.c.), p. 231

²⁰ Mead 1934 (l.c.), p. 154

²¹ Jürgen Habermas describes the lifeworld as ‘horizon’, in which interacting actors are always integrated. Jürgen Habermas: *Theorie des kommunikativen Handelns Band II*, 1995, p. 182

²² Christopher M. Schmidt, Dagmar Neuendorff, Martin Nielsen: *Marktkommunikation in Theorie und Praxis*, p. 337

Empathy

Empathy is a social skill or social competence, which is necessary to understand the other person when there is no common horizon. It involves a reflective simulating how one would feel, act and think in the other person's situation and the consideration of the certain characteristics of another person's situation. As a basic form of social cognition, empathy is the capacity „to share, to experience the feelings of another person”.²³ Empathy is an ability that allows us to comprehend the situation and the perspectives of others both imaginatively and affectively.²⁴ As a multilayered construct, it reaches from basal forms of imitation to highly complex *theories of mind*, which one can call elaborate forms of empathy.²⁵ The biologist Frans de Waal therefore speaks about a Russian-puppet-model.²⁶ In psychology, empathy belongs to the 'social competencies'²⁷ or 'social skills'²⁸, respectively. As such empathy can be trained, because its acquaintance is a central aspect of social skills.²⁹ According to Körner³⁰, empathy as a social competence is composed by three basic capabilities: *the capability of emotional contagion, the capability to take over another person's perspective (and at the same time stepping back from the own point of view – the ability of self-distance), and the capability to understand the context of social situations.*

In sum, empathy means that one has to reveal the own horizon in order to understand the other perspective. The critical view on one's own vocabulary and traditions is part of empathic competence and is essential to the development of proactive perspective-taking. This form of empathy represents a capability, which is not at all a matter of course when it comes to the collaboration of multidisciplinary

²³ Ralph R. Greenson: *Empathy and its vicissitudes*, in: *International Journal of Psychoanalysis*, 1960, Vol.41, pp 418-424

²⁴ Carl R. Rogers: *Empathic: An unappreciated way of being*, 1975, in: *The Counseling Psychologist*, Vol.5, pp 2-10

²⁵ Compare the separation of Nancy Snow in pre-emathic and empathic reactions. Nancy E. Snow: *Empathy*, 2000, in: *American Philosophical Quarterly*, Vol. 37, No. 1, pp 65–78

²⁶ See the ‚matruschka-model’ of the biologist Frans de Waal. Frans de Waal and Evan Thompson, interviewed by Jim Proctor: *Primates, monks and the mind: The case of empathy*, in: *Journal of Consciousness Studies*, 2005, Vol.12, No.7, pp 38-54

²⁷ Heinz Schuler, Dorothea Barthelme: *Soziale Kompetenz als berufliche Anforderung*, in: Brigitte Seyfried (Eds.): *Stolperstein Sozialkompetenz. Was macht es so schwierig sie zu erfassen, zu fördern und zu beurteilen. Berichte zur Beruflichen Bildung*, 1995, Vol.179, pp 77-116

²⁸ See the meta-analysis of Caldarella & Merrell, 1997, as cited by Petermann et al.:

Entwicklungswissenschaft: Entwicklungspsychologie - Genetik – Neuropsychologie, 2004

²⁹ Becker & Heimberg, 1988, as cited by Uwe-Peter Kanning: *Diagnostik sozialer Kompetenzen*, 2003

³⁰ Jürgen Körner: *Einfühlung. Über Empathie*, 1998, in: *Forum der Psychoanalyse*, Vol.14, pp 1-17

teams of specialists. Moreover, certain structures in organizations reject the development of empathy. But structural capabilities in companies can also be designed to create a positive social culture that contributes to the development of empathic understanding between stakeholders.

Structural and Individual Capabilities

A proactive way of implementing social cultures in companies and other institutions takes place between the individual and the organization. Thus, the development of proactive perspective-taking and empathic competencies implies certain conditions at the individual's and on the organization's side.

The idea of the distinction between individual and structural capabilities was brought into a broader discussion by Amartya Sen (1999), who points out that structural capabilities are attributes of the environment of the individual. The society bears responsibility for this structural capabilities and their development. These structural abilities have a great impact on the individual capabilities of citizens, children and employees: Living within the institutions generates individual capabilities. As we pointed out above, for Mead there is no personal development outside the social development, and the development of a social organization always converges with the self-development of its stakeholders. Therefore, understanding one's own role in the organization implies understanding the other members of the organization – and vice versa. Central for this reciprocal process is the comprehension of other worlds through the perspective of the other and to understand it both cognitively and emotionally.

Within a company, structural competencies manifest themselves for example in guidelines or formal restrictions, which can be investigated by the researcher. In order to find out more about the concrete observable cases of perspective-taking amongst employees and about the underlying structures that help coordinating the multidisciplinary team processes in game industry, we focused on the following criteria:

Empathic competencies on an individual level

Various roles, positions and perspectives with complex functions are to be found in game industry and game development teams. We therefore regard the knowledge about the different functions and duties of the many existing positions as an indicator for a basal form of perspective-taking on an individual level. A more elaborate form of empathy might be observed in the knowledge of the problem fields and difficulties

that come along with a certain position – even if it is not a position that belongs to the work field of the interviewee. Finding out if people do demonstrate a profound understanding for the certain situation and struggles of their colleagues may lead to interesting insights about the personal empathic capabilities.

Moreover, we were interested in the individual willingness of stepping back from the own point of view. This could give evidence about the interviewee's capability of self-distance in order to accept and acknowledge the other person's perspective.

Organizing perspectives and perspective-taking on the structural level

Ergonomic theories and labor psychology have stressed the importance of proactive role-taking, communication, responsibility and social competencies like empathy for the success of companies – and many of them propose management methods and tools how to improve these forms of empathic cooperation.³¹ But can those implicit and informal factors really be achieved by formal plans and guidelines? Apparently, one has to keep in mind the detachment between the formal and the informal when it comes to empathic cooperation. Bolte & Porschen (2006) even doubt that the informal can be organized formally.³² Within our field study we therefore separated between those two ways of developing empathic cooperation in the daily work life: perspective-taking that results from formal organization and perspective-taking that arises from the informal field. Do companies organize perspective-taking and empathic skills, which help coordinating professionalized perspectives and roles, or have perspective-taking and empathic skills been developed through collaborative agreement?

Furthermore, communicational interchange creates a space of understanding that enables perspective-taking and heightens the chance of an empathic cooperation. Language and dialogue are therefore important aspects of understanding the other. Narration not always offers a clear and stringent story of persons and situations. It also implies that the hearer has to read between the lines and needs to understand nonverbal behavior. Are there formal guidelines in game companies that could lead to an improvement on side of both the hearer and the sender?

³¹ Just to name a few, compare Benedetto Gui, Robert Sugden: *Economics and Social Interaction: Accounting for Interpersonal Relations*, 2005; Jürgen Kaschube: *Eigenverantwortung- eine neue berufliche Leistung: Chance oder Bedrohung für Organisationen?*, 2006; compare Cary Cherniss, Daniel Goleman: *The Emotionally Intelligent Workplace: How to Select For, Measure, and Improve Emotional Intelligence in Individuals, Groups, and Organizations*, 2001; Roger Eugene Karnes: *A Change in Business Ethics: The Impact on Employer–Employee Relations*, 2009, in: *Journal of Business Ethics*, Vol.87, No.2, pp 189-197; Tobias Schmid: *Empathie in der Personalführung. Eine anwendungsbezogene qualitativ-empirische Studie*, 2010

³² See Annegret Bolte, Stephanie Porschen: *Die Organisation des Informellen: Modelle zur Organisation von Kooperation im Arbeitsalltag*, 2006, p. 11

As per Mead, humans themselves are social. Can companies organize communicational canals and spaces in which one can express his own opinion, discuss it with others and therefore develop an advanced ability of perspective-taking? Or is it the informal communication that leads to an open atmosphere?

Most game development processes are taking place over a long period of time and involve different stakeholders from distinct disciplines. That means companies have to make sure that the employees collaborate and share a common understanding of the product, in order to not work divergently. In addition, the communication between the different disciplines plays a crucial role and must be organized – especially at the intersection of creative and technical stakeholders.

A common intersubjective horizon makes it easier to take over different attitudes. This horizon is constituted by a shared language as well as by shared content and information. Is it possible to find evidence for structural competencies and formal guidelines that promote this horizon throughout the course of projects?

The Meadian ideal of achieving the most comprehensive perspective possible³³ is a moving goal that can be supported by the generation of a shared vision that gives orientation throughout the course of the project. If there is one: of which kind is this overarching perspective in game industry?

3. Research Design and Methodology

We conducted 25 expert interviews³⁴ with people working for German and US-American game companies. All interviewees were professionally involved in game development projects with different specializations that are mainly: *game design*, *programming*, *art*, *production*, and *project management*. We developed interview guidelines addressing the interviewee's role in the company, the structure of project teams and project management in game development projects, the formal and informal modes of collaboration during the game development process and the interviewee's individual experiences, as well as some further issues like creativity building and the use of prototyping. Each interview lasted approximately between 60 and 90 minutes. We recorded the interviews and transcribed them later on verbatim.

³³ See Martin 2005 (l.c.), p. 249

³⁴ Alexander Bogner, Beate Littig, Wolfgang Menz: *Das Experteninterview – Theorie, Methode, Anwendung*, 2005

We used grounded theory as methodological framework for the data analysis process.³⁵ Grounded theory is an approach developed in social science for empirically based theory generation and is especially useful for the exploration of rather fuzzy empirical settings. We draw on an "axial coding" approach, as we use *empathy* as core category for our data analysis. We used the software MAXQDA to support the data analysis process.³⁶

4. Case Study – Insights

The Games Industry is a rather young sector within the entertainment industry. It has gone from a relatively childish pastime to a major force on the global market. Moreover, other industries have profited off the technological advancements of the video game industry.³⁷ It is therefore important to mention that the games sector grew organically out of a field, where persons came together developing games "just for fun". Later on, they were in fact professionalizing their hobby.

One interviewee points out:

"Oftentimes, the culture is formed by the fact, that the people who founded the studio were enthusiastic game players who love the medium with which they work. That means there are not many companies lead by a management who does not know about games. This is an outstanding fact. This forms the way people treat each other. The form of use is pretty easy within the game sector."

Many companies therefore grew without a theoretical know-how about management guidelines and theories. They rather learned by trial and error. This marks a significant difference to other, longer established business sectors.

Within our case study, we investigated two components of empathy and perspective-taking:

- *Empathic competencies at an individual level* – Can we find an increased level of empathic competence amongst the employees within game companies?
- *Advancing empathic competencies on the structural level* – Are there spaces for open communication offered by the company? Can we find evidence for the organizing of perspective-taking? How does the communication between

³⁵ Anselm L. Strauss: *Grundlagen qualitativer Sozialforschung*, 1998

³⁶ Udo Kuckartz: *Einführung in die computergestützte Analyse qualitativer Daten*, 2007

³⁷ Compare Catherine Lyons: *Video Games: Evolving from a Simple Pastime to One of the Most Influential Industries in the World*, 2010, in: *Undergraduate Research Journal at UCCS*, Vol.3, No.1

different disciplines proceed? Is there a development of a shared horizon throughout the project?

Empathic competencies on an individual level

Regarding the individual empathic competencies, we wanted to examine, in how far the employees possess a superficial or rather profound knowledge about the different perspectives within the context of the company. We found, that there exist two levels of information concerning a) the function and field of activity of other positions in the company and b) the certain issues and problems related to such other positions. We also investigated c) self-distance as an important premise of perspective-taking.

a) Knowledge on function and field of activity of other positions

All interviewees demonstrated that there exists a clear picture of the many different roles and positions of their co-workers within the company. That shows on the one hand, that the complex field of activity of the particular position is well defined and communicated throughout the project, and on the other hand, that the employees indeed have an overall understanding of what the colleagues are doing.

In addition, the understanding of positions also includes an understanding for hierarchical relations, which go along with the responsibilities of the given roles. We found for example, that professional game programmers in some cases see their own contribution as a service for the artists or game designers. That means the programmer should not only deliver code lines but also interpret what the artist wants and translate them to the program code.

A coder describes it as follows:

"He (the coder) should see himself as a service provider at this point. For fun I call my colleagues my customers. (...) because like I said, there is a certain gap between the artist's vision and the way it can be implemented. Well, it is never described a hundred percent. It is more, somebody tells you something, like I want it to look like this, but how it should look like in detail is not transported. So it is the ability of the coder to interpret how he works with it and how it looks good finally."

The coder knows his role and the role of the others, and at the same time he knows about the relation between the roles in the project. He is thus informed about the implicit hierarchy of relations in addition to the explicit definition of the different professions. He is furthermore informed about his own responsibility within this interaction.

b) *Knowledge on issues and problems that come along with a certain position*

The perspective-taking, which goes beyond the knowledge about the mere functions of the other professions as described above, requires also a deeper understanding of the problem fields and issues inherent to these functions. We found evidence, that there is an above-average comprehension regarding this kind of deeper understanding. Almost every interviewee was able to describe what specific problems are involved in the work of the other positions.

One natural way of achieving this common understanding of other perspectives is, for example, to expect that the team members also worked in the fields of their colleagues for a while:

"And a programmer, who for example says 'I make a graphic engine' and who then tells the graphic artist: 'make a tree', I think in the best case and as a start the programmer makes the tree himself. The tree of the programmer is probably just a tube with some other tubes looking out of it with a bit of green. It will look pretty stupid. But the programmer has got the tree and can implement it into the game and can take a look how it works. Later on, he will talk to the graphic artist in a really different way. He now can work interdisciplinary. Because he is not saying: I think until here and not further."

In particular, the game designer needs to be able to take over multiple perspectives. He should be able to do the "reality check", as one interviewee points out. That means he has to place himself in the perspective of a) the user or the customer in order to find out if his idea is viable, and b) the other colleagues in his team, because he needs to know if the idea can be processed and implemented by his colleagues.

Game companies explicitly request people with such skills:

"Well, we do not request from our designers that they should be trained coders, but most of them do have a certain coding background, they studied it or they are familiar with data structures and algorithms, so that they can talk to the coders. The maybe cannot program it, but they can think of things, from which they know that one can put it into algorithms."

To really put oneself in other's shoes is a way to enhance the individual's empathic competence. That empowers team members to see whether a problem is solvable by their colleagues and thus whether their idea will work later on. Trusting and knowing each other make it easier to simulate the other's mind. This may be the reason, why interviewees pointed out, that it is important to leave an efficient team together as long as possible without adding new colleagues.

c) *Self-Distance*

The empathic capability of taking over other perspectives also demands self-distance, as described in chapter 2. This means that team members are not only aware of the perspectives of other colleagues but are also willing to question their own output and role within the team perceived by others. For instance, we found that internal feedback meetings as well as so called "focus-tests" with external users are common techniques in the game industry to evaluate ideas and outputs. Much more emphasis is placed on the obtaining of other opinions than for example in the classical IT industry. This can also be shown with an interesting model of dualistic responsibilities: We found repeatedly that the responsibility of ideating concepts is shared by a large group of people and without restriction to a certain discipline, while the responsibility of specifying and communicating concepts is bound to a certain discipline. For instance, although the artists create all artwork, the whole team contributes to it in form of ideas, feedbacks or design outlines. The responsibility of communicating and specifying the art design within the development process lies however very specifically in the hands of the artists. In this way, the position has an explicit responsibility of perspective-taking in order to embracing the ideas of others with the means of one's own craft.

Advancing empathic competencies on the structural level

We analyzed also, in what way the organizational structures in game developing companies are designed to enhance the perspective-taking between the members of the development team. In order to do so, we looked both at formal and informal structures.

a) *Formal structures that enhance perspective-taking*

We realized that already the choice of basic project management techniques could influence the organizational capability to enhance perspective-taking. We found that it is in particular important for the organization to enable reciprocal communication and to allow mutual understanding on what is being developed as well as a system of feedbacks to develop the quality of ideas. The central difficulty seems to be to balance the various creative potential of the team members and the unity of the general direction. Classic top down approaches do not seem to match as one interviewee points out:

"We also made games which were really top-down, where everything came from the creative director. Well, nearly everything that was done was in a way told by him. He dictated every bagatelle. The problem is: it does not scale. (...) With our recent project we had 60 people, and every human being is creative, and every human being has an opinion. And many opinions are great, even if not every answer is the right answer. (...) But our aim was that every opinion is heard, that many ideas come onto the table. And then, we chose the best of them."

This quotation shows that game companies make serious efforts to organize perspective-taking in order to exploit the creative potential of the development team. One way to do so is what we regard as the "interchange of perspectives"; Instructions and executions are embedded not only in a top-down schema, but perspectives could also be transmitted from the bottom to the top. To facilitate such processes, organizational structures are often designed to allow frequent communication and a partial autonomy. For instance, we found a strong popularity of the agile software development methodology SCRUM, which demonstratively focuses on daily meetings that allow free communication and create mutual understanding between the different team members. As one interviewee points out, those meetings offer the possibility to:

"communicate what you are doing, not only to solve problems but just to know, what the other person is doing and to say, 'Wait a minute I want to know what you are doing' or 'I do not think it will work out' or 'I have some feedback for you'."

Also, there are various initiatives to establish an open culture to enhance the level of interactions between colleagues. According to the interviewees, there are many initiatives like watching movies together, carrying out "dream weeks" or brainstorming workshops. Low hierarchies abet the possibility of developing shared ideas. An executive producer told us, that it is completely normal that every employee, even trainees, is asked to send him his or her ideas. This interchange of ideas is independent from hierarchies and brings forward the perspective-taking amongst the stakeholders. Game developing companies have also set up various tools supporting communication, for example Wikis, file repositories, chat- and bugtracker-tools. However, the majority of the interviewees indicated that the direct and verbal communication (face-to-face) is more important. The management obviously tries to achieve this verbal communication by designing open offices and by creating an "open-door"-culture, in which it is "easy to move over and just have a chat, because it is a rather open environment."

b) Informal Structures of Perspective-Taking

Informal cooperation implies the characteristic that it results from problems and

requirements, which are highly situational and context-bound. Thus, the informal cannot be anticipated or controlled by organizational treatments. It nonetheless displays a close connection to formal action and measures.

Mainly informal communication channels play a central role: The majority of the interviewees explained that there is an open communicative environment in game companies. Team members often sit together in one office and activities like watching movies or playing games together are also leading to an increased private interchange. The more people spend their free time together, the more they trust each other and speak on a rather private level, which in turn may activate their willingness of taking over the other's perspective:

"There is a tight exchange. (...) The advantage is that first people perceive themselves as a team, which means that they are campaigning for each other but also pushing each other."

Many of the interviewees accentuated, that people in general enquire and ask very much in game companies, which speaks for the fact that there exists a high degree of informal interchange as well as a genuine interest for the perspectives of the others.

An interviewee explained that the communication in game companies bases more on "direct argumentation, without too much etiquette." The absence of communicative barriers like business etiquettes may support perspective-taking through open narrative structures. This kind of casual conversation has once been developed organically and unknown - whilst it meanwhile is essential to successful project work. The overall game sector seems to be constituted in a highly informal manner. A game designer reported that the exchange with games designers of other studios is intense. While in other businesses internal matters of the own project work are kept secret, the interchange with other companies seems to be more accepted in the game industry:

"As game designer you are an expert, you go to conferences, fairs, and you read on websites to upgrade the knowledge. You actively exchange with other game designers from other companies. Thereby you expand your horizon (...)."

c) Unfolding the Design Vision

Perspective-taking in game development is not only important for the quality of ideas, but also for the essential unity of the different activities. We noticed that forming a mutual understanding about design and look of the game is decisive for the coordination of the different tasks performed throughout the process. We presuppose that the creation of this mutual understanding involves various processes of

perspective-taking. Thus we ask how those processes are coordinated throughout game development projects. We could observe that the design vision unfolds through a combination of top-down and bottom-up processes. Each project starts with the statement of a core design vision, generally in form of written outlines, mood boards and prototypes. Later on, it is particularly the role of the game designer to specify and communicate the design vision to all team members, whom then are given the responsibility to translate the vision within the frames of their respective area of responsibility. However, the design vision itself unfolds not necessarily in a clear top-down manner: On the one hand, at the beginning of the project even the core of the design vision can be questioned and reworked basing on feedback from the development team, and on the other hand during course of the project the unfolding of the design vision is result of intense collaboration and less of the game design lead telling the others what to do. In addition to the design vision unfolding by active perspective-taking throughout the development process, we found that the development team shares a mutual understanding about the genre of the game they develop and thus those games they compete with. An aspect often mentioned is playing those games together and sharing thoughts about them. This helps to find a "common language across the disciplines", as one interviewee stated.

Altogether, we found that efforts done in perspective-taking in the game industry are driven by intrinsic motivation: We realized that it is a kind of "natural trait" of the game industry to have a very high identification with the products being developed. One interviewee pointed out:

"For many of them it is a total identification to work on such a game. This is heartblood (german expression for 'passion'). The branch of their dreams. That is why people give their heartblood and discuss whether the game should be like this or not. And this is of interest for the game designer, because the game gets even better through this. Good game design generates mostly in teams."

5. Conclusion

We can draw the conclusion that perspective-taking is not only occurring in game development on manifold levels, but is also a central precondition for the quality of the final outcome. On an individual level, we found a high degree of understanding for the colleague's roles and perspectives within game companies. On an organizational level, we found various formal and informal structures coordinating perspective-taking throughout the development process. Examples showed that team members adjust their behaviour and decisions to the reactions and beliefs of

their colleagues. Obstacles for perspective-taking, like imbalances in power, asymmetric social relationships or diverse bodies of knowledge, were something to be avoided. Interviewees accentuated the low structures of hierarchy and democratic approaches regarding participation. Informal ways of collaboration enhance empathic forms of teamwork, oftentimes fostered by the formal organization represented for instance in low hierarchies or SCRUM meetings. One central depiction of perspective-taking in game development can be found in the unfolding of a mutual design vision, which is integrating and harmonizing the various perspectives of the different team members. The integration of these perspectives can therefore be seen not only as an individual but also as an organizational capability. In particular the game designers have the role of coordinating the process of design vision sharing. It is not only their task to develop and promote their own design ideas, but also to bring various ideas and feedbacks from the development team together and synthesize them to clear design statements. That means that they have to learn to relate their own ideas and convictions to those of others: On the one hand, they try convincing their colleagues regarding their own perspectives and points of view; on the other hand, they likewise draw on their colleagues' perspectives.

However, perspective-taking in companies might be accompanied by some risks and critical factors. As Becke (2008) points out, the reciprocity of the involved stakeholders holds a high risk of failure, for example if one stakeholder utilizes the social interaction only for his own advantage or is not willing to engage with the reciprocal perspective-taking with others.³⁸ On an individual level a risk can also be seen in the difficulties that come into play when the company expects high-grade forms of emotional labour. Perspective-taking and empathy are linked to the role that the employee holds in his job. If he performs perspective-taking, it may be a performance driven by his company's expectations: The company expects that the employee treats his colleagues like friends and family members in an empathic manner. In this way, a relationship that is based on working conditions is misrepresented as a private relationship; The company's business becomes private business. The discrepancy between the company-led presentation of empathy and the employee's emotions could mark a form of alienation, which comes into being through a constraint to inauthentic presentation.

³⁸ Compare Guido Becke: *Soziale Erwartungsstrukturen in Unternehmen: zur psychosozialen Dynamik von Gegenseitigkeit im Organisationswandel*, 2008, p. 96

References

- Becke, Guido: *Soziale Erwartungsstrukturen in Unternehmen: zur psychosozialen Dynamik von Gegenseitigkeit im Organisationswandel*, Edition Sigma, Berlin 2008
- Bogner, Alexander; Littig, Beate; Menz, Wolfgang: *Das Experteninterview – Theorie, Methode, Anwendung*, VS Verlag für Sozialwissenschaften, Wiesbaden 2005
- Bolte, Annegret; Porschen, Stephanie: *Die Organisation des Informellen: Modelle zur Organisation von Kooperation im Arbeitsalltag*, VS Verlag für Sozialwissenschaften, Wiesbaden 2006
- Cary, Cherniss; Goleman, Daniel: *The Emotionally Intelligent Workplace: How to Select For, Measure, and Improve Emotional Intelligence in Individuals, Groups, and Organizations*, Jossey-Bass, San Francisco 2001
- Claussen, Jörg; Falck, Oliver; Grohsjean, Thorsten: *The Strength of Direct Ties: Evidence from the Electronic Game Industry*, in: *Münchener Wirtschaftswissenschaftliche Beiträge*, 2010, Vol.8
- de Waal, Frans; Thompson, Evan: *Primates, Monks and the Mind, interviewed by Jim Proctor*, 2005, *Journal of Consciousness Studies*, 2005, Vol.12, No.7, pp 38–54
- Greenson, Ralph R.: *Empathy and its vicissitudes*, in: *International Journal of Psychoanalysis*, 1960, Vol.41, pp 418-424
- Gui, Benedetto; Sugden, Robert: *Economics and Social Interaction: Accounting for Interpersonal Relations*, Cambridge University Press, Cambridge 2005
- Habermas, Jürgen: *Theorie des kommunikativen Handelns. Band II*, Suhrkamp Verlag Frankfurt am Main 1995
- Kanning, Uwe-Peter: *Diagnostik sozialer Kompetenzen*. Hogrefe-Verlag, Göttingen 2003
- Karnes, Roger Eugene: *A Change in Business Ethics: The Impact on Employer–Employee Relations*, in: *Journal of Business Ethics*, 2009, Vol.87, Issue 2, pp 189-197
- Kaschube, Jürgen: *Eigenverantwortung - eine neue berufliche Leistung: Chance oder Bedrohung für Organisationen?* Vandenhoeck & Ruprecht, Göttingen 2006

- Körner, Jürgen: *Einführung. Über Empathie*, in: Forum der Psychoanalyse, 1998, Vol.14, pp 1-17
- Kuckartz, Udo: *Einführung in die computergestützte Analyse qualitativer Daten*, VS Verlag für Sozialwissenschaften, Wiesbaden 2007
- Luhmann, Niklas: *Einfache Sozialsysteme*, in: Auwärter, Manfred; Kirsch, Edit; Schröter, Klaus (Eds.): *Seminar: Kommunikation, Interaktion, Identität*, Suhrkamp, Frankfurt 1976
- Lyons, Catherine: *Video Game: Evolving from a Simple Pastime to One of the Most Influential Industries in the World*, in: *Undergraduate Research Journal at UCCS*, 2010, Vol.3, No.1
- Martin, Jack: *Perspectival Selves in Interaction with Others: Re-reading G.H. Meads Social Psychology*. in: *Journal for the Theory of Social Behaviour*, 2005, Vol.35, No.3, p. 232
- Mead, George Herbert: *Mind, Self and Society Mind, Self, and Society: From the Standpoint of a Social Behaviorist*, University of Chicago Press, Chicago 1934
- O'Hara, Maureen: *Relational empathy: From egocentric modernism to socio-centric postmodernism*, in: Bohart, Arthur C.; Greenberg, Lesley S. (Eds.): *Empathy reconsidered: New directions in psychotherapy*, American Psychological Association, Washington, D.C. 1997
- Perdue, William D.: *Sociological Theory: Explanation, Paradigm, and Ideology*. Mayfield Publishing Company, Palo Alto 1986
- Petermann, Franz; Niebank, Kay; Scheithauer, Herbert: *Entwicklungswissenschaft: Entwicklungspsychologie - Genetik – Neuropsychologie*, Springer-Verlag, Berlin Heidelberg 2004
- Rogers, Carl R.: *Empathic: An unappreciated way of being*, in: *The Counseling Psychologist*, 1975, Vol.5, No.2-10
- Schmid, Tobias: *Empathie in der Personalführung. Eine anwendungsbezogene qualitativ-empirische Studie*, Steinbeis-Edition, Stuttgart 2010
- Schmidt, Christopher M; Neuendorff, Dagmar; Nielsen, Martin: *Marktkommunikation in Theorie und Praxis*, VS Verlag-für Sozialwissenschaften, Wiesbaden 2004
- Schuler, Heinz; Barthelme, Dorothea: *Soziale Kompetenz als berufliche Anforderung*, in: Seyfried, Brigitte (Eds.): *Stolperstein Sozialkompetenz. Was macht es so schwierig sie zu erfassen, zu fördern und zu beurteilen. Berichte zur Beruflichen Bildung*, 1995, Vol.179, pp 77-116

- Sen, Amartya: *Development as Freedom*, Oxford University Press, Oxford 1999
- Snow, Nancy E.: *Empathy*, in: *American Philosophical Quarterly*, 2000, Vol. 37, No. 1, pp 65–78
- Strauss, Anselm L.: *Grundlagen qualitativer Sozialforschung*, Wilhelm Fink Verlag, Munich 1998
- Teipen, Christina: *Work and Employment in Creative Industries: The Video Game Industry in Germany, Sweden and Poland*, 2008, in: *Economic and Industrial Democracy*, Vol.29, No.3, pp 309-335
- Tschang, Ted F.: *Balancing the Tensions Between Rationalization and Creativity in the Video Game Industry*, in: *Organization Science*, 2006, Vol.18, No.6, pp 989-1005
- Tschang, Ted F.: *Videogame as interactive experiential products and their manner of development*, in: *International Journal of Innovation Management*, 2005, Vol.9, No.1, pp 103-131