Vorwort der Gastherausgeberinnen

Claude-Hélène Mayer
Promoting intercultural competences in Intercultural Engineering
Die Förderung interkultureller Kompetenzen im interkulturellen technischen Management

Kirsten Nazarkiewicz
Frame management – Intercultural competence development through conduct of talk
Rahmenmanagement – Interkulturelle Kompetenzentwicklung durch Gesprächsführung

Henning Hinderer
Complexities of Intercultural Engineering across Organizations
Die Komplexität von interkulturellen Engineering-Projekten über Unternehmensgrenzen hinweg

Jasmin Mahadevan
Christian Klinke
Failure and success stories in Intercultural Project Management
Geschichten von Erfolg und Misserfolg in interkulturelen Projektmanagement
Editorial

Vorwort

Articles

Artikel

5 Jasmin Mahadevan, Claude-Hélène Mayer
Promoting intercultural competences in Intercultural Engineering
Die Förderung interkultureller Kompetenzen im interkulturellen technischen Management

17 Claude-Hélène Mayer
Frame management – Intercultural competence development through conduct of talk
Rahmenmanagement – Interkulturelle Kompetenzenentwicklung durch Gesprächsführung

31 Kirsten Nazarkiewicz
Complexities of Intercultural Engineering across Organizations
Die Komplexität von interkulturellen Engineering-Projekten über Unternehmensgrenzen hinweg

47 Henning Hinderer
Jasmin Mahadevan, Christian Klinke
Failure and success stories in Intercultural Project Management
Geschichten von Erfolg und Misserfolg in interkulturellem Projektmanagement
Editorial: Towards a collaborative understanding of Intercultural Engineering

Vorwort der Gastherausgeberinnen: Forderung nach einem kollaborativen Verständnis von interkultureller Ingenieursarbeit

Jasmin Mahadevan
Professor of International Management, Department of Business Administration and Engineering, School of Engineering, Pforzheim University, Germany
Dr. phil., Cultural Anthropology, Ludwig-Maximilians-University, Munich, Germany
Master, International Business and Cultural Studies, Passau University, Germany

Claude-Hélène Mayer
Professor of Intercultural Business Communication, Department of Economics, University of Applied Sciences, Hamburg
Senior Research Associate, Department of Management, Rhodes University, Grahamstown, South Africa
Dr. disc.pol. Georg-August Universität Göttingen, Germany
Phd, Rhodes University, Grahamstown, South Africa

1. Introduction

In today’s globalized and technologized world, many individuals work across cultures and locations. Often, work of such kind takes place in technical fields. The aim of this special issue is to conceptualize how culture and technology intertwine and what that means for current cross-cultural and intercultural theory and practice. In doing so, we map the field of intercultural engineering.

With this special issue, we suggest developing the field of intercultural engineering in theory and practice. With intercultural engineering, we mean any intercultural social or corporate field that is characterized by a high importance of technology and specialized knowledge of those working with this technology. We name those working in such fields engineers. We understand the term engineers broadly, as including any type of technical expert, project-leader or manager, be it with regard to computer science, electrical engineering, mechanical engineering or other related fields.

When speaking of intercultural engineering, we refer to all work contexts that integrate work practice of such kind across different perceived borders of culture – e. g. micro-individual, meso-organizational and macro-societal – whilst being mediated through technology.

We argue that the fields of Intercultural Engineering as defined above are currently underexplored, both in theory and in academic and corporate education. Hence, current intercultural theory and practice might not fit technical fields, and researchers and practitioners of intercultural communication and cross-cultural management might lack the understanding of how sense is made in technical fields.

With this special issue, we intend to address these shortcomings in order to facilitate the development and theories and educational practice which fit technical fields and are meaningful to those working in them. In our editorial, we summarize the macro- and micro-perspective in cultural research. Next, we conceptualize cultural complexity in organizations with regard to intercultural engineering. Based on this overview, we suggest an interpretative and collaborative approach to intercultural engineering. Next, we introduce the papers in this special issue.

2. Two approaches to studying culture

In the study of culture, two approaches need to be distinguished. They differ with regard to the level of culture which they study, namely the macro- and the
micro-level (Mahadevan et al. 2011d). Furthermore, they differ with regard to their paradigm, namely and objectivist or interpretative understanding of culture (overview in Martin 2003). They are based on two paradigms, the Given Culture and the Cultural Creation perspective (Mahadevan et al. 2011d).

2.1. Macro-level and objectivist studies of culture

The first approach is the macro-level approach based on cultural dimensions and standards. Cultural dimensions are orientations which try to establish relative difference between members of different societal cultures. The most prominent examples are the studies of Hofstede (1980, 1988, 2003, 2006), Hall and Hall (1997), Trompenaars and Hampden-Turner (1997), and House et al. (2004). Cultural dimensions assume that societies need to find specific answers to universal questions. This means: The question is the same, yet the answers might differ. Examples are cultural dimensions such as concept of time, hierarchy, gender roles: It is assumed that all societies need to have a concept of time, a certain hierarchy and gender roles. Yet, how these requirements are fulfilled might differ. These studies are therefore called cross-cultural as they compare different cultures.

Cultural standards (based on Thomas 2003) refer to the macro-level of culture as well. Yet, in contrast to cultural dimensions, they do not compare cultures with each other with regard to their orientations but try to establish the specific norms and values within one culture. They are similar to cultural dimensions as they also refer to the macro-dimension of culture.

The macro-level approach is based on an objectivist understanding of culture. This means: it is assumed that culture can be defined objectively and that it can be studied and researched upon by quantitative means.

2.2. Micro-level and interpretative studies of culture

The second approach to studying culture focusses on the micro-level. This means: It intends to study specific contexts in which individuals create culture through immediate interaction (Martin 2003). Most micro-level studies are based on the interpretative paradigm which intends to uncover the sense which groups of people give to their doings (Hatch / Yanow 2003). From this perspective, culture is conceptualized as a process of making and re-making collective sense out of changing social facts under certain boundary conditions (Mahadevan 2009).

Following the interpretative paradigm inside (emic) and outside (etic) perceptions on culture need to be differentiated. The interpretative paradigm is based on the assumption that what individuals do must make sense to them – otherwise they would not do it. If this sense is shared within a group of people, this constitutes emic cultural meanings. Through interaction, individuals give emic meaning to their doings which make sense from the perspective of those who act in such a manner. Yet, this emic meaning might not be understood by an outsider who gives different – emic – meanings to the same action. Hence, the outsider might interpret another person’s actions based on his or her own values and motivations and not based on the motivations which the other person gives to his or her doings.

To give an example: A person might perceive him- or herself as structured (positive meaning, emic perspective) when solving a problem. However, this person might be perceived as dogmatic (negative meaning, etic perspective) from the perspective of a person who would act flexibly and would expect flexibility when facing the same issue.

From an interpretative perspective, it is the emic meanings which need to be uncovered in order to understand how culture is created (Hatch / Yanow 2003, Mahadevan et al. 2011a, 2011d, 2012a). This means: The interpretative micro-perspective resists the assumption that
societal cultures prescribe difference. Rather, it is assumed that individuals create sameness and difference between groups of people through their doings. Societal cultures are just one of many boundary conditions of these doings.

2.3. Given culture versus cultural creation

As the previous pages have shown, culture is a paradox: On the one hand, their cultural imprint influences how individuals interpret the world. On the other hand, individuals have the agency to create new meanings. Therefore, culture is a way of interpreting the world which in return shapes which interpretations are possible. Mahadevan et al. (2011d:61) have called these two aspects of culture the Given Culture and the Cultural Creation perspective.

Comparative and objectivist studies of macro-cultures focus on the prescriptive aspect of culture. The assumption is that how individuals interpret the world is to a large extent pre-shaped and limited by their societal cultural imprint. In cross-cultural management literature, this perspective has been called the contingency hypothesis (Thomas 2008). Macro-level cultural studies implicitly assume the contingency hypothesis to be correct; they are based on the understanding that societal cultural difference is an external given and that individuals are contingent upon it (overview in McSweeney 2010). Contrastingly, interpretative studies of micro-cultures focus on how individuals create culture, i.e. new collective identities from an emic perspective. When doing so, they act trans-culturally and create new Intercultures (Mahadevan et al. 2011d).

Hence, the terms cross-cultural, transcultural and intercultural have to be differentiated. Cross-cultural refers to the comparison between existing societal cultural entities. These are compared but continue to exist and pre-determine individual behavior. Transcultural refers to the actions required in order to bridge given cross-cultural difference. Intercultural describes the between cultures in specific contexts. Any intercultural space is the result of successful transcultural interaction; it is contextualized and characterized by new shared emic meanings. When a new Interculture has been created, given cross-cultural difference has successfully been overcome through human interaction in a specific context.

This special issue does not intend to compare engineering styles as based on different societal cultures. Rather, it is the goal to understand how new meanings are created in technical fields and what that means from the perspective of those who interact. To reach this emic understanding, one needs to understand both engineering work and social sememaking in this specific field. Hence, we speak of Intercultural Engineering instead of Cross-Cultural Management as based on macro-dimensions of culture.

3. Cultural complexity in organizations

Since initial managerial encounters across cultures, intercultural interaction has become increasingly more complex (Primecz et al. 2009, D’Iribarne 2009, Mahadevan 2009). This has implications for both theory and practice.

3.1. The cultural complexity paradigm

Within academia, the limits of objectivist macro-studies of culture have become visible (D’Iribarne 2009, Yeganeh / Su 2006). Hence, in-depth and contextualized micro-studies of intercultural corporate fields are on the rise (Primecz et al. 2007, Mahadevan et al. 2011d). This has led to the understanding that individuals in organizations are members of many cultures and collective identities such as professional, organizational and societal cultures (Mahadevan 2009).

Cultural research based on the cultural complexity paradigm does not try to define given societal borders. Rather, it intends to understand from an emic perspective which cultural categories are meaningful. Culture is understood
from an interpretative perspective as any collective identity into which individuals categorize themselves. Examples of such emic cultural categories in an international company might be French versus German but also managers versus engineers, or headquarters employees versus subsidiary employees. The task of cultural research which is based on the cultural complexities paradigm is to uncover under which circumstances which collective identity becomes salient and why.

For example: Under which circumstances will a French headquarters engineer consider herself as French, when will she consider herself an engineer or when will she consider herself a member of corporate headquarters when interacting with a manager from the German subsidiary and how will this influence the behavioral strategies chosen? For giving the answer to this question, research on cultural complexity in organizations pays attention to how macro-level cultural difference is made sense of in micro-individual contexts. It furthermore acknowledges processes of transference between micro- and macro-level and pays attention to the institutional and structural boundary conditions of human interaction.

3.2. The intercultural training context

Amongst practitioners, the impact of culture on corporate business has become visible; hence, intercultural training has become a standard tool of the corporate human resource development (HRD) curriculum (Szkudlarek 2009). Still, intercultural practice in organizations is impacted by the structural limitations of what we call the intercultural HRD triangle in organizations in this article. The partners in this triangle are external intercultural trainers, members of the corporate HRD department and those whose intercultural competencies need to be developed (based on Mahadevan 2011c).

Often, intercultural training activities required a highly specialized competency, e.g. with regard to a specific culture.

Therefore, an intercultural expert – called Interculturalist (Dahlén 1997, Mahadevan 2009, 2011c) – is needed. At the same time, most intercultural training activities are individualized, single-time activities based on fluctuating internal demand. Hence, most companies do not have the intercultural demand which justifies employing highly-specialized interculturalists full time. Therefore, most intercultural HRD takes place with the help of external freelancers.

These freelancers are familiar with societal cultures, yet, might not be aware of emic organizational sense-making within the organizations whose members they need to train or coach. Hence, they are not familiar with a very important context that influences how individuals give meaning to their doings. To assume that external interculturalists can prescribe cultural meaning to these individuals seems too large a claim from an emic and interpretative perspective. It does not acknowledge cultural complexity in organizations.

Freelance interculturalists are influenced by market pressures: They need to sell their expertise as those who enable others to overcome societal cultural difference. Hence, when selling this expertise to the corporate HRD department, they might need to exaggerate cultural difference in order to sell themselves as the experts who can help overcome it. The corporate HRD department needs to justify its expenses. The more alien another culture is, the higher the risk is that those untrained in dealing with it will cause financial losses to the company. Therefore: The more differently another culture is presented, the better for the interculturalist and the safer for the corporate HRD department. As Mahadevan et al. (2012c) have shown, this situation results in a tendency to present cultures such as China and India as more alien than they actually are. In such a way, the commodity of cultural difference is sold.

The corporate HRD department, on the other hand, is not familiar with the work context of those who need to be trained. This is especially true when tho-
se working together do so in engineering fields (Mahadevan 2011c, 2012c). As Kunda (1992) has highlighted, managers and engineers are antagonistic actors in organizational fields. Managerial control and technological freedom on an engineering level create diverging, and often conflicting meanings in organizations (Mahadevan 2009). Those working in technical management need to bridge the cultural divide between central managerial departments such as HR and engineering (ibid.).

3.3. Understanding the social dimension of engineering

The American Engineers’ Council for Professional Development has defined engineering as the:

“creative application of scientific principles to design or develop structures, machines, apparatus, or manufacturing processes, or works utilizing them singly or in combination; or to construct or operate the same with full cognizance of their design; or to forecast their behavior under specific operating conditions; all as respects an intended function, economics of operation and safety to life and property” (cf. Encyclopaedia Britannica 2012:286).

This definition applies to many types of engineering work, be it computer science, the creation of micro-chip design, the testing of circuits, the manufacturing of machines, or the invention of new technical products.

Based on this definition, engineering is a creative activity during which individuals work together and try to solve or prevent future problems (overview in Rammert 2000, 2007). They try to find solutions and invent new technologies; they market technology or research new potential technologies. This means: Humans and technology are linked through human-machine interaction (Latour / Woolgar 1976, Suchman 1987). Furthermore, humans need to master technology: They need to prevent it from being erroneous or faulty, and they need to be able to predict whether a certain technology will do what it is expected to do when put into usage or when manufactured.

An engineer’s identity is based on his or her ability to master technology (Rammert 2010). Hence, any fault or flaw in the system also questions a person’s ability to be an engineer. To be part of the engineering community individuals need to demonstrate that they are capable of the creative, problem-solving and meaning-making activity of engineering. Therefore, good engineering can be seen through whether an individual behaves like a good engineer. In such a way, engineering is a community of practice (Bourdieu 1976, Mahadevan 2008): membership is based on what people do.

Yet, often, technology cannot be seen. In the case of software engineering, for example, individuals work in individual human-machine interaction (Mahadevan 2009). Other engineers cannot see whether another engineer works like a good engineer. Therefore, engineers tell each other stories about the technological issues which they have already mastered (Orr 1996). Alternatively, they display a certain habitus (a way of being which is specific to a certain social class, see Bourdieu 1997) to make others trust their expertise. For example, research and development engineers might collect and display Dilbert cartoons or make a point not to wear business attire when interacting with management (Mahadevan 2009). In such a way, they display a community of engineers, they construct their belonging to this community, and they create a respective group of non-engineers, namely their own management. As Mahadevan (2009, 2011c) has shown, professional engineering identity might actually be stronger than societal cultural difference between engineers.

3.4. The need for intercultural collaboration

Neither the corporate HRD department nor the external interculturalist is part of engineering culture. Yet, based on the understanding of cultural complexity, they need to understand the emic meanings which engineers give to their work practice in order to contribute to this field.
To give an example (based on Mahadevan 2008, 2011c): Intercultural training which does not take organizational and professional engineering cultures into account, might actually have detrimental effects. In the given case, the external interculturalist needed to train engineers at the German headquarters for working together with engineers at the Indian subsidiary. The external interculturalist was not aware of the fact that some German engineers feared that they might lose their job due to outsourcing to India and a simultaneous downsizing process in Germany.

At the same time, the corporate HRD department demanded from the interculturalist that she justified why intercultural training was actually needed with the alienness of Indian culture. Therefore, the interculturalist delivered a standardized power point presentation which highlighted dichotomist descriptions of Indian value / behavior versus German value / behavior, therefore creating given cultural difference based on cultural dimensions and standards. This presentation was then ISO-certified by the company which made the content of the intercultural training reliable and enabled the HRD department to justify the expense.

In the actual training sessions, the interculturalist presented Indian culture as very different and traditional and its members as very limited by their cultural imprint. Those German engineers, who did not fear losing their job due to outsourcing to India, resisted this presentation and argued that their Indian counterparts were just engineers. For doing so, they were considered interculturally incompetent and still in the early stage of minimization (based on Bennett 1986) by the external interculturalist.

Over the next months, those engineers who feared losing their job due to outsourcing to India used the information delivered to justify why work from India was late or bad quality as based on cultural dimensions and standards. Those German engineers who were not afraid of losing their job interpreted the same incidents as bad management and blamed corporate management for it. To them, Indian engineers were still good engineers.

This example highlights the importance of understanding how emic meanings are made in intercultural engineering fields. It also shows that many cultural levels influence emic sensemaking on an engineering level. However, not many studies have analyzed these processes in intercultural engineering fields. In practice, interculturalists and HRD personnel often lack the knowledge and understanding of intercultural engineering fields. Yet, this understanding is needed to conceptualize collaborative approaches of how to enhance intercultural competency in engineering fields. What seems clear is that neither the interculturalists nor the HRD experts are able to be the sole prescribers of cultural difference in today’s complex and technologized organizational fields. Rather, one needs to integrate managerial and intercultural theory and engineering practice collaboratively.

4. Summary: Interpreting intercultural engineering

Intercultural engineering is a complex organizational field. On the one hand, engineering is based on universal principles of science. These principles of science are culture-free, yet, engineering also implies to make sense out of technology and how to use it. On the other hand, technology is a cultural actor which needs to be interpreted (Latour / Woolgar 1976, Suchman 1987). The ensuing interpretations need to be shared by those working with this technology in order to establish a minimum of coherence within the technical community of practice (Orr 1997). This is called the social mediation of technology (Orr 1997, Mahadevan 2009). Based on the cultural complexity paradigm, the social mediation of technology might be contingent upon societal cultural difference, yet, it might also be specific to a certain organization, department or profession (ibid.). Only the interpretative analysis of emic micro-cultural sensemaking will deliver the emic social
meanings of technology in a specific context.

Due to the complexities of intercultural engineering, societal cultural difference cannot be prescribed etically, e.g. by external interculturalists or by corporate management. Given Culture and Cultural Creation go hand in hand in engineering fields, especially if engineers work together trans-nationally and trans-culturally and collaborate virtually across different corporate sites. Based on the cultural complexity paradigm, one needs to understand under which circumstances which cultural level – e.g. organizational, professional or societal culture – becomes salient and why.

In summary, intercultural theory and practice needs to deepen its understanding of whether cross-cultural dimensions are meaningful to those working in these fields. Questions to be answered are, for example: How are macro-cultural orientations translated and transferred to micro-engineering contexts? When and how does cross-cultural difference impact the professional engineering community of practice? When and how do new engineering intercultures emerge that bridge initial cross-cultural difference?

With regard to practice, this calls for collaborative approaches to HRD and intercultural training. Rather than prescribing societal cultural difference from an etic perspective, corporate HRD departments and interculturalists should focus on interpretative intercultural training activities which try to uncover the social dimension of engineering. This also implies a resource-based view on the social competencies of those working in engineering and a re-structuring of the intercultural HRD triangle. Ultimately, this requires actions of intercultural creation across the legs of this triangle in order to integrate the HRD department, the interculturalists and engineering.

5. The articles in this special issue

The articles in this special issue deal with the topic of cultural engineering in various contexts and from different perspectives, bringing together interculturalists, management scholars and engineering academics and professionals.

Claude-Hélène Mayer emphasizes that intercultural competences are key competences in international engineering organisations. Her article is based on selected empirical findings from a multi-method research study. It focuses on cultural engineering in a specific Engineering organisation in South Africa and investigates how managers in an international and culturally diverse engineering environment define intercultural competence, how they cope with intercultural challenges in their daily work routine and how intercultural competence could be promoted within cultural engineering contexts.

The contribution by Kirsten Nazarkiewicz focuses on the relevance of conversation as a learning tool to gain intercultural competence. Her paper reflects on communication as a crucial dimension of intercultural learning processes while focusing in particular on the target group of engineers. She presents three significant findings on the characteristics of communication in educational settings. The author argues that the unconscious reproduction of this pedagogical structure is not helpful for intercultural learning and shows how to use these orientations for a collective intercultural learning process that involves experts of different subcultures (technical and intercultural expert) interacting on equal terms. Finally, four approaches for trainers’ conduct of talk are introduced to foster intercultural competences.

Henning Hinderer highlights the cultural complexities of intercultural technical projects across organizations. He shows how the incorporation of external consultants into a technical project multiplies cultural complexity and suggests a model of how to con-
ceptualize this condition. The author identifies processes of identity-making and othering as crucial constituting factors of intercultural engineering across organizations. He suggests strengthening the position of hybrid individuals who are between professional or organizational cultures to utilize their integrative potential as intercultural boundary-spanners. Project managers are encouraged to incorporate cultural complexity into their activities. Adding to the interpretative understanding of intercultural engineering, Jasmin Mahadevan and Christian Klinke propose analyzing failure and success stories in technical project management. Based on a long-term interpretative study, they show that project reality does not exist as such but is constantly created through stories of project success and failure. They identify three, interrelated types of stories and show when and how intercultural conflict and culturalized interpretations impact the development of intercultural competencies and neglect the complexities of project reality. To overcome these obstacles, they give recommendations to academics and practitioners from various fields.

What these articles have in common, is an interpretative approach to specific intercultural settings between social reality and technology. One of their aims is to deconstruct reified national cultural containers and to facilitate a dialogue between such diverse fields as engineering, management and intercultural communication. For doing so, one article concerns the education of future intercultural engineers, another focuses upon intercultural training practice. One article highlights the construction of culture amongst technical management while two other articles conceptualize the complexities of intercultural engineering in technical projects across societal cultures and organizations.

The articles presented in this Special Issue outline the field of Intercultural Engineering, this being an academic first. They bring about new thoughts and ideas to empirical research and theoretical approaches in this field and intend to stimulate further debates, research and discussion. You are now welcomed to read on and be stimulated to move the discussion forward, in a constructive, intercultural and controversial way.

Jasmin Mahadevan (Pforzheim) and Claude-Hélène Mayer (Göttingen), October 2012
6. References


1. Introduction

Intercultural competence and its promotion have become well recognized aspects in international human resource management and cultural engineering during the past years (Moore / May / Wold 2012). However, only a few studies have been conducted in globalized and technologized South African engineering contexts.

The concept engineering derives from Greek, referring to “ingenious, invention, machine, machinery, invent, constructed by the art of the mechanic, art to construct a machine” (Bazac 2009:265). To engineer is here defined as to intervene, with the human
intelligence, within the human life, or to intelligently transform the human environment as well as the human being him-/herself to realise human ends. Focusing on a definition of engineering, to engineer also refers to the use of tools (ibid.). From this understanding, tools are defined broadly to include words, actions, and interactions, verbal and non-verbal communication. From this perspective, the term engineering refers to the tools of human interaction as defined previously.

Moving the concept of engineering forward to include \textit{cultural engineering}, these tools of human interaction exist in a cultural context. Culture has been defined broadly across disciplines, decades and contexts (Treichel / Mayer 2011). According to Balzac (2009) culture includes the spiritual and material creation of a human being’s life in interaction with the socio-cultural context. Culture is being created through human interaction and therefore, engineering is a cultural practice. This cultural practice relates to the use of technology within or across cultural contexts and includes the discussion about technological interventions made by human beings within the cultural environment. In these terms, cultural engineering is compatible with the concept of cultural management which is defined as the “art of directing projects from the original concept to its final realization” (Kagan 2010).

This article is based on selected empirical findings from a multi-method research study. It focuses on cultural engineering in a specific engineering organisation in South Africa.

It investigates how managers in an international and culturally diverse engineering environment define intercultural competence, how they cope with intercultural challenges in their daily work routine and how intercultural competence could be promoted within cultural engineering contexts.

The contribution of this article is double fold: Firstly, it highlights the importance of understanding processes of inside (emic) sense-making for understanding intercultural competencies in cultural engineering contexts. Secondly, it adds to the literature on intercultural competences and their promotion in cultural engineering in a globalised and technologized international engineering industry.

In the following, the context of the study and the theoretical background will be presented. Then, the methodology will be introduced and the selected empirical findings with regard to the formerly defined research questions will be presented. A conclusion with regard to (promoting) intercultural competence in the cultural engineering context will be provided.

2. The context of the study

Cross-cultural and intercultural studies have been conducted within the South African management context to compare managerial competences across cultures (Van den Bergh 2008). However, these cross-cultural studies are often based on cultural comparisons, using outside (etic) perspectives and culture-general approaches to research selected aspects of intercultural competences. Studies which focus particularly on intercultural competence from emic managerial perspectives – in cultural engineering contexts which relate particularly to subjective concepts of managers and their understanding of intercultural competences and their promotion – have hardly been published (e.g. Van den Bergh 2008).

The Republic of South Africa has undergone tremendous change on societal, political, economic and individual levels in the post-apartheid era (Hart 2002). Nearly two decades after the end of Apartheid, South Africa is still in a double transition (Webster / Adler 1999). This double transition refers to the changes in both the socio-political intranational transformation since 1994 and in increasing globalisation trends within the South African engineering context. Global processes have impacted on values and management in the society and in organisations (Mayer 2008).
Owing to the increase in cultural complexity within the engineering industry in South Africa, hybrid cultural identities as well as interculturality in South African engineering organisations have developed. It has been stated that new intercultural management approaches as well as new communication techniques and ways of thinking are required (Luthans / van Wyk / Walumbwa 2004).

Managers feel that they need to prepare for managing complex intercultural situations with employees from different social, cultural and disciplinary backgrounds (Mayer 2008). Through developing and promoting intercultural competences, employees in cultural engineering contexts are empowered (Denton / Vloeberghs 2003), particularly since it has been highlighted that intercultural competence in managers and managerial health are strongly connected (Mayer 2011). Intercultural competences can contribute to the increased understanding of cultural complexities, intercultural communication situations and intercultural interactions in the engineering context.

Several authors (Booyse 2004:177) have emphasised that particularly in South African management contexts, cultural awareness needs further consideration to promote interculturally competent employees and organisations to create healthy organisational cultures (Booyse 2001, Viljoen / Rothman 2002). This is assumed as particularly important in the engineering context in which managers often deal with intercultural human interaction, often mediated by technology in a highly technologized work environment.

3. Intercultural competence in engineering organisations

The term intercultural competence has been defined variously across contexts and cultures and has been applied in different fields. In management sciences, intercultural competence is generally summed up as the ability to work and communicate well across cultures. Most of the definitions of intercultural competence include components of intercultural competence, such as “empathy, flexibility, cross-cultural awareness, and managing stress”, while some definitions of intercultural competence specifically note other elements such as technical skills, foreign language proficiency, and situational factors (Deardorff 2004:14).

Other authors (e.g. Lustig / Koester 2003) highlight that intercultural competence is not an individual characteristic, but rather an ability to cope with intercultural situations. In management sciences, the effectiveness and efficiency of intercultural work interactions is often stressed with regard to intercultural competences (Bolten 2007). The variety of definitions on intercultural competence is huge, however,

"Nearly all definitions of intercultural competence include more than knowledge of other cultures, since knowledge alone is not enough to constitute intercultural competence. Intercultural competence also involves the development of one’s skills and attitudes in successfully interacting with persons of diverse backgrounds" (Deardorff 2004:13).

Studies on intercultural competence have often emphasised that the measure and the promotion of intercultural competence is strongly connected to the question on how the concept is defined (Klep 1979).

With regard to the South African managerial context, concepts of intercultural competence, intercultural training, measurement of intercultural competence and the question on how to promote intercultural competence have variously been explored with regard to medical and health contexts (e.g. Levin 2011), as well as in educational contexts (Weber / Domingo 2004). For the South African context, it has been highlighted that engineering graduates are expected to possess various competences which can be distinguished into hard and soft skills and which include intercultural competences (Oladiran et al. 2011).

With regard to management development in engineering in South Africa, intercultural competence training
has recently gained interest (Horwitz 2006). A few studies have explored intercultural communication in engineering contexts, using a cross-cultural comparative approach from etic perspectives (e.g. Naidoo 2011). The development of intercultural competence of engineering students has also been highlighted (Jansen 2004). However, the emic perspectives of engineers towards intercultural competences within engineering have hardly been explored.

4. Methodology

The research study presented is a mixed-method research study based on qualitative and quantitative research methods within a phenomenological research paradigm.

The engineering organization used for this study belongs to one of Europe’s leading German engineering groups; Southern Africa is one of its largest sales regions.

Natural sampling procedures were implemented by the Human Resources Department of the South African headquarters. Altogether 27 out of 120 managers agreed to participate in the study, including 15 female and 12 male managers. 19 of the interviewees defined themselves as White, including 13 South African, four German, one Bulgarian and one Dutch manager, three as Indian, one as Coloured and four as Black.

Data were collected through questionnaires, in-depth interviews, observation, field notes, secondary literature and the internal documents of the organisation. The in-depth interviews were recorded and transcribed verbatim. The in-depth interviews were based on predetermined research questions focusing on the issue of research. Observations were conducted and field notes were taken during the research study.

For this article, only selected qualitative findings will be presented.

The data from the in-depth interviews were analysed according to a 5-step process of content analysis: Step 1: Familiarisation and immersion; Step 2: Inducing themes; Step 3: Coding; Step 4: Elaboration; and Step 5: Interpretation and checking (Terre Blanche / Durrheim / Kelly 2006:322ff.). The interviews have been (re-)constructed by the content analysis process, using categorisation and coding methods which led to the elaboration and interpretation of data.

With regard to qualitative research, criteria conformability, credibility, transferability and trustworthiness were defined.

The research ethics contribute to the quality of data and ethical guidelines: The managers who were interviewed were fully informed about the research and participated voluntarily. Informed consent was given and confidentiality, anonymity and transparency were agreed upon.

This study is limited with regard to its context as a multi-method single case study which refers to a relatively small set of data. The findings presented are subjective data, providing emic perspectives of selected individuals. Therefore, findings are not necessarily generalizable in quantitative terms and follow-up studies are required to prove these findings in similar and different organisational and national contexts.

5. Research findings

Referring to the biographical data, findings show that the group of 27 interviewees included 13 South African, four German, one Bulgarian and one Dutch manager. Referring to ethnicity, seven managers from the Indian, Coloured and Black groups defined themselves as South African. One Black interviewee defined herself as North-Sotho by nationality (Mayer 2011).

Regarding the mother tongue and the cultural group affiliation, four Blacks indicated their mother tongue as Lutoro / Lutaro, Sotho / Zulu, Tsonga and Zulu. The Coloured manager indicated Afrikaans as mother tongue, two of the Indian managers indicated English as mother tongue and one interviewee...
failed to respond to this question.
Eight White managers were Afrikaans-speaking, four were English-speaking, four were German-speaking, one was Bulgarian-speaking, one was Dutch / Afrikaans-speaking and one was English / Polish-speaking by mother tongue. All Black, Coloured and Indian managers had studied at Universities and got Bachelor (BA) or Master (MA) degrees.

5.1. Defining intercultural competence

Referring to research question 1 “How do managers define intercultural competence in their work context?” the following Table 1 gives an overview of managers’ statements on definitions of intercultural competence in engineering. (See Exh: 1)

In the following, selected aspects of statements on these aspects of intercultural competence will be presented and explained. Only the three mostly mentioned aspects in the interviews will be explained in-depth.

In total, 11 out of 27 managers highlight intercultural competence being mainly influenced by “speaking the language”. P22, a female Indian South African manager emphasizes:

“...I am exposed quite, ahm, to a big [emphasis] extent with, ahm, our German colleagues, ah, because I’m in charge of pricing. So whenever I need a price I speak to [name of a manager] all the time. She’s from the logistics department. Ah, she liaises with, ahm, Indian people to get the Indian pricing. Ahm, and then I deal a lot of Germans. Ahm, I felt that their English was not too good, in the beginning, ahm, but then I noticed that Germany’s introduced, ahm, English lessons and that has improved my communication and my emails to [name of a manager] a great bit because at some stages I would think, o my word, you don’t understand [emphasis] what I’m talking about, because we had this language barrier. Ahm, but I must say, it’s improved greatly and besides, ahm, having a work relationship with everybody overseas I’ve ended up having a personal relationship, as well, over email. Ahm, so they actually send me pictures of their kids and their dogs and whatever and, ahm, you know, talk about the weekend. It’s not really professional, professional and to that point. Ah, it’s a very friendly, casual relationship, but [emphasis] result-driven, as well. Ahm, which is good, I think. That comes across in whoever I speak to. I must say [name of a manager] response from last six months

Exh. 1: Intercultural competences. Source: Author’s own work.
and this six months is really great because, ahm, from not understanding my logistics requirements and pricing requirements to really [emphasis] getting down to equip me with what actually happens there. Ah, filling in the process link, filling me with the reports that I need, ahm, reporting [emphasis] me in advance when anticipate [emphasis] something going wrong. That’s worked very well, so I must say, ah, hats off to them for that. The English lessons have helped us get on to the same level.

As shown in this quotation, the notion of “speaking the language” is very much connected to aspects of a professional understanding with regard to logistics and pricing requirements, reporting, information processing, anticipation, but also to social communication and casual relationships of P22 and her colleagues overseas. All of this communication is mediated through technology, such as email, telecommunication or video conferencing. To understand each other across cultures is, in the eyes of this manager, strongly connected to language competencies. Because of professional English skills and a highly professionalised language communication, it is very important that the employees in the organisation all speak the language of conduct to a certain degree, that technical terms are understood and that complex work processes and interlinkages of, for example, logistics and pricing can be explained and understood. The manager highlights that, since the language competency of her colleague in Germany has improved, the teamwork has really improved.

P7, a South African male white manager also comments on “speaking the language” as a very important part of intercultural competence:

“Yeah, if I can just relate one little incident which happened, ah, last week, ahm. Some, ah [...] people from one of our country’s north, I mean Zimbabwe and stuff, had a problem with a related issue with, ah, their vehicle and they, ahm, thought it was supposed to have been treated with a warranty, ahm, which I had to and they were very sort of, ah, adamant about it and, ahm, I had one of my junior personnel actually attending to the thing and they came to me, said to me, you know, they couldn’t relate to these people and they were very aggressive with the whole thing and so on and, ahm, the first thing I did is when I greeted them, I greeted them in their own language and I think that pretty straight away took off, ahm, the aggression from it and I went on to discuss the issue with them and we came to an amicable solution to it and, ahm, I explained to them why the warranty situation wasn’t viable and they, ah, accepted the outcome of it.”

This male White manager shows by describing a “little incident” that happened to him at work, how language competencies can decrease conflict and conflict potential just by approaching a colleague in his / her mother tongue. In the opinion of this manager, language competency is a key competence in intercultural competence. Knowing the mother tongue of another person is like a door-opener. This door-opener opened a deeper discussion about the warranty contract this manager is narrating about. He implicitly argues that his ability to speak the “local language” leads to an open discussion about the situation as well as to the decrease of aggression within the situation. By speaking the language he connects to those addressed on a very personal level, showing them respect and also interest in their culture and language. By speaking the language he also shows understanding of the cultural background and knowledge about the cultural background of the individuals addressed.

In parallel to the aspect of “speaking the language”, two more aspects are particularly emphasised by selected managers: “understanding the culture” and “being calm / patient”. These two aspects are often interlinked, because knowing the language also means to know the culture to a certain extend. However, at the same time, it becomes obvious that knowing the language is often not enough to really understand – the understanding can only be created between the managers and the researcher.

In the following, two managers of this engineering organisation point out that “understanding the culture” is highly important. All of the managers that highlight this point, argue on base of
the assumption that “understanding the culture” implies that there are cultures which are highly homogenous so that a person can speak of “the culture”.

P27, a German expatriate, who has been living in Johannesburg for six years states the following:

“Ahm, actually I was positively, ah, welcomed [emphasis], because I started very early in saying, I have the opportunity to learn a lot about your cultures, so I wanna now, and that was in principle my speech in the beginning [emphasis], I wanna give you [emphasis] the opportunity to also learn something about my culture. And I gave them also promise and said, whenever I’m travelling overseas, I will bring something back. So my first trip was to Verona, to international meeting from the group, and I brought a pic about Verona with, from Italy. So, and, and stuff like that, or a simple thing is, you know, I’m from Bavaria so obviously we, we know how to drink beer. So I bought this Bavarian beet beer and explained to them how we pour it into, ah, a beer glass. That was quite, ah, a good experience and the next thing is that, always in December, when we close off the year, it’s always the last day in the year, we have a German event, which means in the first year we had Bavarian sausage with pretzel and mustard and beet beer and the second year I had, ah, Eisbein and the third year now I had a, ah, ahm, what is it, like a snack, and people appreciate it and with that approach they also open up themselves as far as their culture is concerned and they are eager to tell me about their culture and why they do this and that and Queen Mashaba, the Rain King, or whatever and so on and so forth. So I always was welcomed and we openly shared what our cultures do and why and this and that and for that matter it was always excellent.”

This German expat explains that the understanding of “the culture” is very important when it comes to getting to know his colleagues and subordinates. So, this expatriate chooses the approach to celebrating German festivals at the end of each year and he brings in culture-specific food and explains how Bavarians enjoy pouring beer into glasses. His approach of “cultural understanding” is a very practical approach that generalises national and regional culture. However, by choosing this approach, his colleagues open up and talk about their own cultures and culture-specifics. In the department, he thereby establishes an approach which is based on talking openly about one’s own culture. This approach includes the explanation of culture-specific thoughts and behaviour. So colleagues talk openly about their cultures, cultural behaviour and cultural assumptions, thereby creating an open-minded organisational culture. The manager is well aware of the fact that this approach is “for that matter excellent”. It is a very simple, trust-building approach which promotes openness; however it is also limited: this approach is an introduction to building up trust and openness and also to promoting intercultural understanding to a certain extent. The manager is, on the other hand, well aware that this approach is highly generalising and simplifying and that “the culture” is not a homogeneous, but rather is highly heterogeneous culture.

Likewise, an Afrikaans-speaking managers of 62 (P14) highlights the importance of “understanding the culture” in a similar way. He gives the example of “calling me Oom” which he sees as a highly culture-specific way of addressing an elderly person in a friendly and respectful way.

“Ahm, another thing is, you know, ah, everybody of all cultures, right, call me Oom. You know, it’s, it’s, ah, the first time it was strange for, ah, you know, I went to visit a dealership in Ermelo, for an Indian guy, you know what Oom is [question], Oom, you know, Afrikaans, Afrikaans culture’s got a thing, if somebody’s slightly older than you, you call him Oom, Uncle, Oom is Uncle, right. So if he, if he looks, ah, I went to a dealership in Upington and there was a guy there and he, over the phone he called me [name of a manager], right, and when I arrived there he said to me, how old are you, I said 60. He said but oh, then I must call you Oom, you know [laughter] and then to hear from, you know, you walk into a dealership and a Indian guy comes to you and he says to you More Oom [name of a manager] [laughter], you know, then, then you, then I think you,
You know you’ve crossed that, that, that cultural, cultural bridge.

The male manager shows in this excerpt that intercultural competence is based on the “understanding of culture”. He highlights that colleagues across cultures call him “Oom”, uncle. He views it as culturally competent when colleagues across cultures know about culture-specific expressions and use them across cultures to show respect and thereby to show that they are interested in the culture and that they are knowledgeable across culture specific aspects.

For him, this is a possibility to communicate respectfully across cultures and bridge cultural gaps.

For managers, being “calm” and “patient” is strongly connected to “taking time to understand” and “get to know a person” and “understand conflictual intercultural situation” (see table 1). In an intercultural conflict situation it is viewed as competent, if a person stays calm, speaks quietly and calmly. Showing strong emotions, such as anger, is seen as incompetent.

Besides the frequently emphasized aspects of “speaking the language”, “understanding the other culture”, “being calm / patient”, managers also highlight values such as “tolerance, acceptance and respect” which are important in their intercultural professional work. With regard to the past of South Africa, these values are highly important in the Post-Apartheid society and therefore also reflected in the organisational intercultural reality. Furthermore, managers highlight that intercultural competence means “treating people equally across cultures”, which includes talking to them in a calm and relaxed way and seeing every person as equal. This is also a highly important value in Post-Apartheid society that is reflected within the organisational culture.

Altogether six managers highlight that “being sensitive” is extremely important and five managers point out that intercultural competence is the opposite of discrimination with regard to any diversity aspect. A person is understood as interculturally competent if he / she does not discriminate against others with regard to race, culture, religion and age. These statements are connected to “giving people equal opportunities” (four statements), as well as to “being empathetic” (four statements). All these aspects of intercultural competence might be interpreted as being rooted in a long and deep experience of Apartheid during which discrimination and “being different” and “being unequal” were key concepts.

Finally, three managers highlighted “communication skills”, “humanness”, “peacefulness”, “gender competences” and “flexibility” as important intercultural competences within the engineering field.

Competences with regard to “being able to apologize” (mentioned by two managers, “networking”, “transparency” and “being helpful” (mentioned by one manager each), were stated with regard to intercultural competences.

5.2. Coping with intercultural challenges in engineering

The second research question being responded to in this article is “How do managers cope with intercultural challenges in the engineering organisation? (See Exh: 2)

A total of 17 managers out of 27 feel that communication is the most important tool to cope with intercultural challenges in the workplace. Thereby, managers mention diverse communication strategies to resolve conflicting situations, such as “talking openly about those issues” which need to be addressed, “discussing”, “inquiring and asking questions”. For a few managers, “round table talks” are important means for resolving intercultural conflicts. Furthermore, from an emic perspective, explanations for why things are done in this or in that way are important.

P14, a White South African male manager, for example highlights, that

“There should be a forum of different cultures, right, and, and then that forum
should meet, what, every three months and discuss any problems that they saw within the organization that, or have, you know, heard anything, you know, experienced anything in the organization that needs to be addressed. I think it, it, it needs to come, not maybe, from the top down, it needs to come from the bottom up and, ah, having a forum like that, ah, say, you know, three different cultures from CPD, three different from workshop, let them sit and discuss, you know, that was an issue, like health and safety."

P14 is of the opinion that formal as well as informal open discussions are very important to act in an interculturally competent manner. This includes, for example, explanations of thoughts, strategies or ideas, as well as the exchange of ideas and discussions on specific issues, such as “communication” or “health and safety”. Thereby, communication should follow a “bottom-up approach of employees and managers”. To him, it seems to be very important that managers have the opportunity to work together across cultures on different managerial levels to really become interculturally competent.

With regard to the definition of intercultural competence, managers highlight managing “intercultural challenges”, “learning how to connect to the cultural aspects of the other person” and “learning and addressing the culture” (13 managers). Additionally, ten managers feel that the strategy of “being respectful” helps them to cope with intercultural situations. Eight managers state that “being professional” and “open-minded” equals intercultural competence and view these attributes as being effective in coping with intercultural interactions in their daily life routine.

Other interviewees highlight that accepting and adapting are very successful strategies in intercultural situations. P13, a female South African white manager, for example, points out:

"It’s not really a res, resources that it’s needed there […] ah, you need to learn to adapt, that’s the first thing. If you can adapt it means that’s a big resource. So it means when you go to India […] if you

<table>
<thead>
<tr>
<th>Coping with intercultural challenges</th>
<th>Interview partners</th>
<th>Frequency of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>P1, P3, P4, P5, P6, P12, P15, P18, P21, P26, P27</td>
<td>17</td>
</tr>
<tr>
<td>Talking openly (P6, P8, P9; P12, P14, P18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussing (P1, P3, 14, P26, P27)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inquiring, asking questions (P4, P19, P22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round table talks (P3, P22) Explaining (P5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning the culture</td>
<td>P3, P5, P8, P11, P12, P16, P17, P18, P20, P21, P23, P24, P25</td>
<td>13</td>
</tr>
<tr>
<td>Respecting others</td>
<td>P1, P4, P11, P12, P13, P14, P19, P21, P24, P26</td>
<td>10</td>
</tr>
<tr>
<td>Being professional</td>
<td>P1 P17 P19 P21 P22 P23 P24 P25</td>
<td>8</td>
</tr>
<tr>
<td>Openness, open-mindedness</td>
<td>P12, P14, P15 P20 P21 P22 P26 P27</td>
<td>8</td>
</tr>
<tr>
<td>Accepting different cultures</td>
<td>P2, P7, P8, P12, P14, P25</td>
<td>6</td>
</tr>
<tr>
<td>Adaptation</td>
<td>P12, P13, P17, P22, P24</td>
<td>5</td>
</tr>
<tr>
<td>Religious belief</td>
<td>P1, P7, P11, P12, P20</td>
<td>5</td>
</tr>
<tr>
<td>Being objective &amp; strategic, not emotional</td>
<td>P2, P17, P19, P22</td>
<td>4</td>
</tr>
<tr>
<td>Building up trust</td>
<td>P6, P10, P12</td>
<td>3</td>
</tr>
<tr>
<td>Raising awareness of different cultures</td>
<td>P2, P8, P27</td>
<td>3</td>
</tr>
<tr>
<td>Introducing Key Performance Indicators</td>
<td>P3, P22, P27</td>
<td>3</td>
</tr>
<tr>
<td>Accommodating different world views</td>
<td>P2, P18</td>
<td>2</td>
</tr>
<tr>
<td>Action room methods</td>
<td>P1, P22</td>
<td>2</td>
</tr>
<tr>
<td>Using humour</td>
<td>P1, P16</td>
<td>2</td>
</tr>
<tr>
<td>Reflecting and observing</td>
<td>P1, P2</td>
<td>2</td>
</tr>
<tr>
<td>Understanding body language</td>
<td>P1</td>
<td>1</td>
</tr>
<tr>
<td>Working with the issues</td>
<td>P11</td>
<td>1</td>
</tr>
<tr>
<td>Ignoring cultural faux pas</td>
<td>P8</td>
<td>1</td>
</tr>
<tr>
<td>Compromising</td>
<td>P11</td>
<td>1</td>
</tr>
</tbody>
</table>

Exh. 2: Coping with intercultural challenges. Source: Author’s own work.
can adapt you live like them, if you go to Russia you be like Russians. As long as you can adapt that’s it, that’s the main purpose.”

So in the opinion of P13, adaptation is the most important tool for pursuing an interculturally competent strategy. However, P2, for example, highlights that before you can adapt you need to know “the culture” (“if you go to Russia you be like Russians”) and that the best tool for getting to know the culture is observation.

“I think it is my ability to actually stand back and observe [...] I’m usually somebody if something gets heated or some conversation or some situation, I would really stand back and look at it objectively [...] and I think that is really one of my strengths in terms of managing difficult situations. Ahm, I’m not [emphasis] emotional [...] and like they always say typical females are, but I’m not emotional when it comes to business and difficult situations, I really leave my emotions outside the door and look at it objectively.”

The ability to “stand back” and observe is strongly connected to looking at the intercultural situation as it occurs in an objective, non-emotional and professional way (P2). P2 is a female manager who believes that emotions can create difficulties in communication. For her, an “objective” view is very important. From her perspective, this objectivity, which she places high value upon, is gained by observation.

5.3. Recommendations for developing intercultural competences

Finally, the findings with regard to the third research question on “Which recommendations can be provided to promote intercultural competence in managers in the international engineering organisation?” will be presented.

A majority of managers highlight that they are very content with the organisational culture in terms of intercultural competence and understanding of managers across cultures within the organisation. However, managers point out that the following aspects can still be improved with regard to intercultural competence. (See Exh: 3)

Managers across all cultural groups feel highly content about intercultural relationships which they have. Hence, only a few statements on recommendations for how to promote intercultural competences were given.

Three managers point out that new policies could bring improvements for promoting intercultural competences within the organisation. These policies include, for example, the taking in of members of formerly disadvantaged groups (Black, Coloured, Indian) into top management positions.

Two managers highlight that “sharing of information and knowledge” can always be improved. Another two managers feel that managers of different cultural belonging could still work more closely together and that working together across cultures is very much influenced by the definition of goals. These two managers see it that way that managers across cultures should agree on common goals and mediate their inter-relationships through the goals of the organisation or the department. Common goals can support the bridging of cultural gaps and differences, as long as the goals are defined as overall goals and as highly important.

<table>
<thead>
<tr>
<th>Recommendation for promoting intercultural competences</th>
<th>Interview partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Putting new policies in place</td>
<td>P1, P4, P24</td>
</tr>
<tr>
<td>Sharing information and knowledge</td>
<td>P1, P10</td>
</tr>
<tr>
<td>Closeness of cultures working for one goal</td>
<td>P10, P11</td>
</tr>
<tr>
<td>Updating technological systems</td>
<td>P1</td>
</tr>
<tr>
<td>Proper introduction training</td>
<td>P1</td>
</tr>
<tr>
<td>Providing feedback</td>
<td>P7</td>
</tr>
<tr>
<td>Improving email communication</td>
<td>P10</td>
</tr>
</tbody>
</table>

Exh. 3: Recommendations for intercultural competences. Source: Author’s own work.
P1 states that technological systems need to be updated to communicate on “an equal technological level” across cultures. She also emphasises that intercultural training can help to professionalise working together across cultures in a professional way. For P7, it is important to give and gain feedback with regard to his work and interpersonal communication behaviour to improve his own intercultural competences and learn about his colleagues. Another manager is convinced that email communication needs to be improved with regard to the question how a person should communicate in an interculturally competent manner across cultures in emails.

One of the white English-speaking male managers (P4) highlights the following when it comes to recommendations for the organisation to promote intercultural competences:

“Its, its, there’s such a huge mix of cultures, that, in order to understand the person standing next to you’s culture you, you’ve really got to make a concerted effort and maybe if we do [emphasis] then make that effort we’ll understand each other a lot better. But yeah, ahm, I think South Africa is a very complicated country. We also need new policies to bring people together and bring people of former disadvantaged groups into top management positions.”

This statement shows that the manager is aware of the fact that each and every individual within the organisation needs to make a concerted effort to be interculturally competent. Together with improved policy strategies, intercultural competences within the organisation can be improved (P4). This includes the restructuring process of organisational policies and the overcoming of Apartheid-related structures (White management, Black workers) in the organisation which still exist.

Finally, to learn about other cultures, respect others, being professional, open-minded, accepting and adapting, as well as copying through religious belief are all important copying strategies which help managers to cope with challenging situations. Further on, managers view the following aspects as important competencies and strategies to cope with intercultural situations: objectivity and non-emotionality, trust building, raising awareness, key performance indicator, the accommodation of different world views, action room methods, humour reflection and observation, understanding body language, working with the issues, ignorance of cultural faux pas and compromising.

6. Conclusion

This article refers to the questions of how managers in an international and cultural diverse engineering environment define intercultural competence, how they cope with intercultural challenges in their daily work routine and how intercultural competence could be promoted within cultural engineering contexts.

It can be concluded that intercultural competence is highly important for managers with regard to language competencies (to speak a language as well as to know introductory words and small talk in a certain language), cultural understanding (understanding cultural aspects, thought styles and behaviour as well as using cultural concepts to bridge differences) and calmness / patience (be calm, patient and take time to understand and manage). Managers use a very practical approach with regard to their definition of intercultural competence. Particularly with regard to language and cultural understanding emic perspectives are relatively simplistic and generalizing in terms of their homogeneous picture of cultures. This picture comprises national, regional and language-group ascriptions and is epitomized in the expression “understanding ‘the’ culture”. From an emic managerial perspective in this specific context, the concept of intercultural competence can be interpreted as being strongly rooted in the Post-Apartheid concept of “being equal” and “anti-discrimination”. It has to be viewed and understood with regard to the Apartheid history. This suggests the importance of taking the specific organizational setting and also macro-societal configurations into account when trying to approximate emic understandings of culture. In general,
managers view intercultural competence as a very important concept which supports managers to overcome the cultural gaps within the organisation.

With regard to the research question on how managers cope with intercultural challenges in engineering, the most important coping strategies are related to communicative competencies which include open talk, discussion, inquiry, round table talks and explanations. However, from emic perspectives the most important coping strategies are: learning about other cultures, respecting others, being professional, open-minded, accepting and adapting, as well as copying through religious belief. Further on, managers view objectivity and non-emotionality, trust building, raising awareness, key performance indicator, the accommodation of different world views, action room methods, humour reflection and observation, understanding body language, working with the issues, ignorance of cultural faux pas and compromising as important competencies and strategies to cope with intercultural situations.

There are only a few recommendations that managers state with regard to improving intercultural competences in the organisation. This might be due to the fact that managers are not aware of intercultural competences and the possibilities of their promotion. It might, however, also be related to their cultural concept and their assessment of culture-related behaviour. Finally, it could be also related to a gap in trust to talk openly about their criticisms on organisational matters. It can be concluded that intercultural competences can improve effectively when individuals within the organisation make an effort to become interculturally competent whilst the organisation undergoes restructuring processes in terms of the implementation of new policies to promote interculturality and thereby intercultural competences within the organisation. Improvement referring to intercultural competences does not only refer to inter-relationship, social and structural competences, but also to technological advancement and improvement which might be specific with regard to an emic perspective in the engineering organisation.

This study makes a small and exploratory contribution to studying emic perspectives on intercultural competences and their promotion in an engineering organisation in South Africa. It is limited to primary and secondary source analyses and triangulation of theories, methods and data in terms of qualitative data analysis within one organisation. Referring to the sample and the qualitative single case study approach, the results of the study are not generalizable in quantitative terms; however, the results provide exploratory insights and a deeper understanding of the exemplified issues in the described and presented setting.

7. References


Frame management – Intercultural competence development through conduct of talk

Abstract (English)

The relevance of conversation as a learning tool to gain intercultural competence has been underestimated so far. This paper reflects on communication as a crucial dimension of intercultural learning processes while focusing in particular on the target group of engineers. It begins by presenting three significant findings on the characteristics of communication in educational settings. These observed regularities reveal a temptation to organize conversations in a fact-oriented and expert-centered true-false logic. I will argue that the unconscious reproduction of this pedagogical structure is not helpful for intercultural learning and show how to use these orientations for a collective intercultural learning process that involves experts of different subcultures (technical and intercultural expert) interacting on equal terms. Hence, four approaches for the conduct of talk of interculturalists or trainers to foster intercultural competences are introduced and illustrated. The paper emphasizes the art of ‘frame-work’ as a method to evade the risk of purely content-oriented and normatively loaded seminars by using verbal and paraverbal techniques and different interventions.

Keywords: communication, conversation analysis, intercultural engineering competence, frame-work

Abstract (Deutsch)

1. **Conduct of talk as a perspective**

An analysis of various approaches in intercultural education shows that in regard to learning targets, trainers mainly trust in materials, methods, and exercises (Nazarkiewicz 2010b). Yet, there is hardly any comment about the most common exercise: the conversation in the training. In the process of training and learning, during the evaluation of exercises or group discussions, insights are acquired and perspectives are broadened through the medium of communication. This kind of interpretative work consists of communicative activities. When analyzing the shifts of meaning that are essential for developing intercultural competence, typical solutions can be described (Nazarkiewicz 2010b). However, comprehension, appreciation and learning difficulties are predominant in the material I analyzed. In the following, this observation will be related to familiar challenges in intercultural training with engineers. Every trainer can report typical situations in training that are challenging for communication and for competence development. When being asked, trainers often point out the difficulties of using categorizations in general, the dynamics of stereotyping, the utterance of prejudices and different versions of resistance in training.

Moreover, with respect to the target group of engineers, there are additional challenges for the task of developing intercultural competence. One can say that the work environment of engineers requires a special habitus and an attitude which have consequences for the way of conducting intercultural training and for the communication in these training sessions as they bring along their experiences and needs. Four implications need to be considered:

Firstly, technicians and engineers are specialized in avoiding and finding defaults, bugs, errors, all kinds of mistakes that might lead to problems in the design of systems, machines or other materials and devices. Hence, the questions “what went wrong, what is right and how to...?” are significant and frequent.

Secondly, as in all fields where technology has a high importance, principles and deductions are fundamental. Therefore engineers are used to looking for categories, classifications and ‘if-then-causalities’.

Thirdly, discussions, topics and solutions in their eyes need to be practical and hands-on. All three mentioned aspects lead to the frequently asked question: “What do I do if...?”

Fourthly, perception and comprehension form an obstacle to learning as machines and technology are seen as culture-free, based on universal principles, and therefore the importance as well as the culture-specific characteristics of communication are underestimated. The paradigm of universality of technology does not allow technicians and engineers to entertain the thought of cultural influences in every aspect of their work as this culture-sensitive approach lies outside of the frame of their professional belief system.

In this article I would like to argue that these legitimate needs can lead to learning hurdles and even more resistance when the trainers fulfill these expectations. The art of intercultural competence development in the conduct of
talk is ‘frame-work’, a reflection and translation of frames. According to Erving Goffman, frames provide a fundamental means of creating meaning and making sense of a given situation, that is, of determining ‘what is actually going on here’. Applied to communication this means that each utterance implies manifold cues as to the way it should be interpreted and related to its context: “Spoken sentences contain examples for most frameworks” (Goffman 1980:53).3

The focus in this paper will be on conversation and communication as a crucial dimension of intercultural learning processes. The findings presented are based on the analysis of utterances and typical sequences from audiotaped training sessions as well as on personal training experiences. First, I will present the findings with respect to the characteristic organization of talk in educational settings. They show the temptation in intercultural training to organize the conversation in a true / false logic and they argue that for intercultural competence development this pedagogical structure is not helpful – especially when the target group expects this logic. Thereafter, I will demonstrate with examples from intercultural training that there are at least four approaches in the conduct of talk to build intercultural competence: (1) teaching and training, (2) moderating and facilitating, (3) solidarity with the participants and (4) culture reflexive interventions. My argument is that these strategies of frameworks are more important than explanations and evaluations of participants’ utterances. With this attitude participants as well as trainers will be less tempted to answer questions by resorting to if-then causalities. Thus, instead of sticking to a purely engineering approach, this allows for developing solutions together with all target groups – not only engineers.

2. Educational framework: Learning from a communication perspective

Independent of subjects and topics, communication in a pedagogic situation can be distinguished from communication in everyday life. Apart from the architecture of the location and the local identities of participants and trainers, the communication has a particular formal structure, which is also different from other institutionalized forms of talk. Findings from the analysis of school lessons that have been presented in conversation analysis publications can also be observed in adult education and intercultural training as well. There are three characteristics participants and trainers anticipate and put into practice: (1) the topic control by the teacher, (2) the pre-allocated turn-taking, and (3) initiation – evaluation as basic orientation. These three characteristics represent the power the trainer has and need to be managed by the facilitator. In the school system, where the regularities have been found, they support the transfer of knowledge. In adult education, especially when the objective is to develop intercultural competence, and moreover, in an engineering context, these orientations should be known by facilitators of intercultural settings. If they are practiced unconsciously, there is a high risk of a competition between the expert role of the engineers and the intercultural expert, of two stocks of knowledge and competences.

2.1. Topic control and framework

Trainers structure their training communication according to their learning targets. In their initiations, trainers explicitly mention the respective framework: they explain the topic and how to talk about it. With the means of frameworks and parentheses, participants indicate in which context the ongoing situation is put or how to interpret their utterance. Thereby, frameworks can be prearranged or transformed during the interaction or even redefined ex post. Encapsulated frameworks, that is, the embedding of several reference frames in interaction, are not an exception but the rule. For intercultural training, frameworks are relevant in several respects. Trainers explain topical frames,
but they also use meta-communicative comments to address frameworks.

In addition, the training itself represents an especially modulated frame for the so-called “practicing” (Goffman 1980). By talking about situations, problems, and contexts, with the help of the facilitator participants imagine how to change their behavior. By discussing possible ways of dealing with the colleagues, the so-called ‘solutions’ to puzzles or challenges, in this particular space beyond the daily routines, evaluations and interpretations are practiced as “cognitive trial runs” (Goffman 1980:72). In the following excerpt, a trainer to be called Leslie in this article precisely focuses the context of meaning in her introduction. (See: Exh. 1)

The trainer uses a step-by-step approach to narrow down and to delineate and ‘zoom in on’ the space of reflection she wants to establish now. She first presents the overall subject of the training (intercultural communication), then the special focus of the communication (misunderstandings in communication), and finally the current learning target (differing communicative styles) before she addresses Valerie. Thus, by using a series of focusing expressions (“subject is” – “focus shall be” – “what we want to look at more closely are”), she not only announces but also explicitly sets preconditions for what is to be discussed next. The addressed participant, Valerie, can expect a question or context that deals with communicative styles.

The excerpt is a good example for an explicit way of conducting the training discourse; however, in most cases the topic control remains implicit. Let us consider, for example, a very typical topic and question of a participant in the engineering context. The test runs of an IT system are outsourced to a subsidiary in India. The participant asks why the German part of the team does not get the results in the quality and according to the process that was agreed. There is a bouquet of assumptions and frames at work in this tiny training situation. What does the questioner mean with “quality”? What are the roles and positions of the participants? What is the professional context of “test runs”? What is the context of “process”? Is this a cultural matter at all? The intercultural trainer, on the other hand, might at this moment be thinking and interpreting what is said within the frame(s) ‘cultural standards’ or ‘intercultural communication’, with an orientation towards specific learning objectives, and she then has to decide if the topic ‘fits’ the learning target. By managing the frames explicitly and intentionally, the facilitator is able to determine the major topic, the outcome of the training situation, the combination and synergy of professional and cultural frames.

Also, in line 8 of the excerpt, one can observe the so-called pre-allocated turn-taking. The floor and right to speak or address participants is always with the seminar leader. This is the next basic orientation in seminars.

2.2. Pre-allocated turn-taking

In contrast to daily conversation, pedagogic settings are characterized by a specific exchange system (“Only teachers can direct speakership in any creative way”, McHoul 1978:188). Trainers have the platform and can pass on the right to speak to participants. If the persons addressed do not reply, the turn automatically returns to the trainers. Participants’ utterances are directed at the trainers as the primary addressees, who show minimal responses, for example when a story is told. Afterwards, other participants can also contribute, but only have the right to talk as long as the trainers do not make a claim. There are techniques to address participants as members of a learning group, by giving the right to speak to the one who re-
Here, the trainer Leslie calls the participant Valerie by her name. Valerie immediately signals attention with an emphatic “yes”. With her question, Leslie only addresses Valerie and her non-German cultural identity. Valerie is asked to describe her feelings regarding the German communicative style. After a two-second pause, which normally triggers a turn-taking in German daily conversations, Valerie signals her understanding that it is her turn now with a soft “hm” (line 13). The drawn-out sound expresses the fact that she is busy thinking, and during a pause of another 5 seconds she is not interrupted. The addressed persons do not only have the right but the duty to respond. Not answering would imply a loss of face. Since Valerie has not yet answered, Leslie relaunches the subject with another question. It becomes obvious here that Leslie distributes the right to talk and that the floor returns to her when there is no response.

Together with the topic control, the pre-allocated turn taking enables trainers to act as experts, to define what is relevant or not and to share the floor with selected participants or the group. In training sessions with engineers this twofold power is a chance and a risk. It creates the trainer as an expert, but for intercultural matters. Thus, two types of expert status and identities are in the room: technical experts and experts for intercultural competence. The chance is eye height between all participants, the risk is a frame competition between technical and cultural prerequisites.

A solution for this situation is a switch between teaching and moderating activities as this is a form of turn-taking in training. This other type of turn-taking has been described by Mazeland (1983) as initiated self-selection. With phrases like, “I’ll pass this on to the group, do you agree with it?”, the authorization – and task – to ask questions or express points of view is passed over to the whole learning group, the turn-taking system is then opened. One of the participants can take the turn by self-selection. Despite the fact that one can find overlaps or that people interrupt each other (like in school, too) there is no doubt about a general orientation towards the special turn-taking organization of arranged learning. The chance for trainers lies in the conscious exchange of roles and communicative activities that are implied in these regularities.

### 2.3. Initiation – evaluation as basic orientation

The last of the characteristics of pedagogic communication I would like to point out is the particular sequential organization of conversations, which is based on different variants and combinations of double pair-sequences. In conversation analysis the term “adjacency pair sequence” describes patterns like question and answer, whereas the first utterances require an immediate and specific form of reply. Behavior which deviates from this pattern is facet-threatening and requires an account. The double adjacency pair sequence in pedagogic communication contains on the one hand the pair question / initiation and response, and on the other hand the pair response and evaluation. (See: Exh. 3)

The first two utterances give no hint about the difference of the sequential organization: between a colloquial conversation and a learning situation. It is not clear until the third turn that there are two differing types of interaction. Instead of a thanking ritual responding to the given information, the answer in the second turn is evaluated. The so called ‘asking known information ques-
A teacher’s utterance is not characterized by giving the information, which would be expected in a daily conversation, but by the third turn, in which the first speaker evaluates the answer given to his/her question (Mehan 1979, 1982). By evaluating answers successive utterances are influenced, thereby communicatively producing ‘correct’ knowledge. It is crucial here that all participants anticipate that answers from a different logical level are to be expected as a response to their questions. Even larger interactive parts or processes are ultimately based on the expectation of participants, so that trainers select and evaluate their responses in respect to learning targets. This so called ‘initiation-evaluation-sequence’ becomes a teaching of knowledge. After the structure ‘trainer asks for known question’ is established, nobody expects to only exchange information, but to fulfill a learning target. In Mehan’s example, Denise not only tells the time, but demonstrates that she knows how to read the clock. From this communicative structure follows, that the fulfillment of the learning target consists in symmetry between the initiation and the accepted answer in regard to the target. Streeck (1979) shows that teachers do not change the topic beforehand.

The different strategies, used to minimize the difference between initiation and ‘correct’ answer, contain at least one of two elements: the acceptance of the utterance (on the content level) and/or the appraisal for performance (on the relationship level).

The following excerpt shows one of these knowledge-generating sequences, which can also be found in intercultural training. The trainer has explained the issue using the example of a TV thriller where a couple of witnesses are present at the scene of the crime. (See: Exh. 4)

After initiating an undirected question, trainer Leslie leaves it to the participants to self-select the turn-taking during a two second pause (line 3). Daniela is the first to answer (line 4). Before another participant can switch the mode of the discussion, which is initiated by laughter (line 6), Leslie affirms Daniela’s response with a reformation. The use of her modal particles “sure sure” (in line 7) signals a certain dissent. Although Daniela’s answer seems quite right, it is not yet fitting in regard to the aspired insight and learning target. After a paraphrase of her previous answer (omitted here), Daniela adds another reason for the relevance of different perceptions. Leslie approves this answer (see line 20), though rather with minimal responses than with a particular emphasis. Introduced by “and actually”, Leslie announces another explanation, and evaluates…


Exh. 4: “Selective perception”. Source: Author’s own work.
Daniela’s answer as correct “too.” In doing so, Leslie encourages Daniela to try again (lines 23-24). The expected answer seems to please Leslie, who personally praises Daniela (line 29). This positive evaluation is accompanied by a smile and laughing particles. The last part of Daniela’s first answer includes laughter as well (line 5). Although we can only speculate about the reason for this, it might be the case that the classical teacher’s question and evaluation represented a face-threat in adult education settings, which was absorbed by laughter. Leslie abstracts the content of Daniela’s response as “the core of it” and paraphrases with the technical term for it: ‘selective perception’ (line 31). Altogether, the structure of question or initiation, answer and evaluation is repeated three times, if Leslie’s “prompting” (Mehan 1982) in the lines 1, 7, 23, can be regarded as starting points for new cycles.

These basic patterns, which have been discovered in research on communication in schools, can – as we see here in the excerpts – also be found in adult education, although in a varied and mitigated form. In small adult groups, for example, there is no raising of hands, and the speakers’ utterances frequently overlap. Despite the differences, the patterns can be easily identified in adult education as well. Even if trainers do not explicitly praise or evaluate, there is a selection by their emphasis on utterances, which aim at the teaching target (e.g.: “that’s very nice [ ... ] that is the core of it”, line 29f.). Trainers in intercultural training organize their interpretative work based on these orientations: they focus, select, moderate, and direct the attention as well as the participants’ scope of interpretation. It is instructive, to analyze on this basis how the training of intercultural competence is organized, to solve problems which arise in pedagogic communication.

On the one hand, this expectation that utterances will be evaluated is helpful for achieving learning objectives. On the other hand, the problem and didactic hurdle that is connected with this practice is that participants expect the trainer to tell them what is right or wrong, also when it comes to interacting with people from ‘other’ cultures. The risk is that the expectation circles of culture and communication and the conversational partners are treated like the logic of a machine: there is only one truth and solution, when I do this, that will happen etc. Also, the main point of ambiguity tolerance and that there are many perspectives to a situation is missed. Hence, the basic orientation, also in adult educational settings, is an unfortunate encounter of legitimate participants’ expectations, especially engineers, to get a ‘right answer’ and a regularity in pedagogic settings: the binary logic of ‘true or false’. Engineers have an affinity to binary logic, it is also commonly referred to as machine-logic, because it only defines bipolar solutions, such as ‘right-wrong’, ‘good-bad’ etc. Yet, intercultural competence is based on a high-order logic that allows for different solutions to be equally right at the same time (‘both’). This is often the case in social systems, like organizations and trainers work hard on fostering the credo that there can be several solutions to one single problem at once – a paradox within itself. ‘Either-or’ is replaced by ‘as well as’ or ‘both’ in viable systems, which brings an ongoing solution to seemingly unsolvable challenges through continued decision-making processing. The consequence is that the initiation-evaluation orientation in pedagogical settings can easily be abused when trainers evaluate contributions of participants.

The challenge for trainers as (inter-) cultural experts is to use all three basic orientations for a collaborative framework on eye height and together with the engineers without falling back on delivering the ‘right’ knowledge and competing with the technical experts. Only when all participants analyze and assemble many perspectives and establish interactively adjusted frames as an idol for intercultural competence, technical and intercultural expertise converge in a higher logic. Then, for engineers as well as for trainers intercultural engineering competence is like playing chess with dice.
3. Facilitating intercultural competence: Approaches for trainers

Intercultural competence is considered a soft skill and an 'on top competence' with little recognition in technical contexts. Yet, globalized technological cooperation does not require cultural 'answers' but a broader scope in thinking, acting, understanding and interpreting. On the other hand, not only engineers need to learn, but the trainers too have to find out about the challenges, contexts and constraints in the technical field. The objective is to train intercultural skills and competences in a way best suited for the respective target groups. It is important to keep in mind that competence-building cannot be additive (learning something about 'other cultures') but that it has to be transformative (Mezirow 1991). This means that the actors observe their own practice and reflect their assumptions on which it is based. Additionally, they begin to question and verify their solutions and search for alternatives that can reconcile contradictions. This transformative learning approach holds true for the technical experts as participants as well as for the intercultural expert as a trainer.

To train intercultural competence, juggling with at least four different approaches is necessary. Intercultural learning and competence can be brought forward by different roles and interventions of the trainer. (Nazarkiewicz 2010a). (See: Exh. 5)

The square represents a selection of four possibilities of how a trainer can initiate talk or deal with contributions of participants to foster intercultural competence.

3.1. Explicate: Teaching and training

The most familiar and the most consciously practiced way to speak is to explicate, teach or train. Oriented toward the content of statements, the long training socialization within the school system and the focus on the content of the seminars, trainers see themselves as experts providing the participants with special knowledge or train competence to adjust to 'other' cultures. Trainers make use of their primary right to speak and their monopoly on evaluations, in that they reformulate utterances of participants from a transcultural perspective. That means that intentional ascription or direct attributions are dispreferred activities. The perception of other persons is paraphrased on the basis of 'our / my perspective' and their observable behavior is interpreted against the background of an 'orientation to other cultural norms'. How do trainers teach to make interpretations which reflect culture? The following example will show typical activities of what I called “transcultural talk” (Nazarkiewicz 2010b).

With her comment on issue of time, trainer Leslie takes up a previously discussed behavior of passengers on board of airplanes. A certain behavior is perceived to induce stress, when structured service processes are carried out. Leslie adapts the perspective of stewardesses and stewards, who could consider a cer-
tain behavior as annoying, but without implying a judgment. Leslie uses the conjunctive in her formulation. First she describes the habit to decline an offer a few times and names the respective value, here politeness. Second, she offers other, more familiar cultures where this kind of behavior can be expected, too. She avoids a generalization by qualifying the occurrence as “pretty common” (line 101). The technical term “indirect communication” (line 103) has already been introduced. This is indicated by the definite article “the” (line 103) that hints at a tacit relative clause “which we have discussed before”.

In a little scene which is marked by direct speech and code-switching to English Leslie presents a way of declining an offer and repeated offers out of courtesy. The immediate response to the offer shows the ritual-like decline. Also the protest against the decline is expressed ritually by the sound “oh”. Leslie then switches to German again and rephrases the pattern from the perspective of the declining person (“so you let yourself be persuaded”, line 107).

This method to transfer knowledge of cultural characteristics is typical and is frequently found in my data. The order of activities may vary, single elements can be picked out and elaborated. In order to identify culture as an interpretative resource, trainers regularly:

a) introduce a value or orientation, which explains the background (here: politeness),

b) describe or illustrate this value with staged examples (“would you like a cup of tea – oh no – oh go on”) or with a story,

c) show how to recognize the orientation by specific behavior (“it’s a game back and forth”, line 108),

d) name the pattern (here: “indirect communication”, line 105),

e) add at least one culture or respective representative as a category (here: India, Belgium and England, line 100/101),

f) generalize and qualify at the same time (“very common”, line 96, “pretty common”, line 101),

g) describe effects on or feelings of a person, who does not share this orientation or its interpretation, attribution, perspective (“what could be tiresome”, line 95),

h) and illustrate the perspective of these persons, who share the orientation (“so you let yourself be persuaded”, line 107).

The practicing of this transcultural talk can also be distributed to different persons. With the means of intermediary questions and other initiations, participants are encouraged to take over single elements. With these elements participants change perspectives, and put their feet into the moccasins of others. However, together with the basic pedagogical orientation mentioned in chapter 2 this teaching approach reproduces the illusion culture would be something similar to a machine and one could simply ‘apply’ the knowledge.

The teaching mode helps to introduce different world views or ways of doing things and delivers their background. It is exactly the way of training that is expected from most participants in intercultural training, especially from engineers. A typical learning objective is e. g. to ‘avoid pitfalls’ in intercultural communication. However, as argued in paragraph 2, this approach misses some major points of intercultural
competence like a multivalent notion of truth, picking up emotional resistance of participants and managing different frames and contexts.

3.2. Moderating and facilitating

When a participant e. g. interprets the behavior of an engineer colleague as “bossy” the teaching approach would be to inquire about the situational factors and then explain the background and value orientation of the conversational partner. A moderating reaction would be to ask open questions, not only addressing the participant who participates but also the group: “How come that you have this impression?” (focus on the individual and his interpretation), “What are the experiences of the others?” (focus on an exchange of emotions and attributions), “How do the others see this?” (focus on the exchange of constructions of “the” colleagues). Moderating means to ask open questions and to be open for the expression of the attitude(s) of the participants. The following extract shows this approach. One of the participants described a scene and evaluated the counterpart as “bossy”. The trainer reacts as follows: (See: Exh. 7)

Besides open questions the trainer practices active listening and tries to find out the explanation patterns of the participants. There are several advantages of the moderating approach. Moderation fosters reflection, opens a discussion, inquires information, arranges a discourse. It helps elicit more similar or different experiences and interpretations. Also, in avoiding an explanation or an evaluation of the utterance, the facilitator’s approach initiates eye height in discourse and includes all participants to speak culture reflexively and to find many interpretations and solutions.

Asking questions and gathering a collection of possible interpretations, frames and approaches changes the role of the trainer to a facilitator but also to a learner and listener. The cultural expert will learn from the technical expert and his logic, all participants can look for a combination of frames and possible strategies to solve challenges.

3.3. Culture-reflexive interventions

Interventions that help the participant to overcome a culturally bound perspective is another approach that can be used strategically to train intercultural competence. It simply means that – if appropriate – the trainer adds a comment to the utterances of the participants that helps to reflect the limits of the interpretation or question. For this, the trainer uses the initiation-evaluation-orientation (see 2.3.) and ‘corrects’ the question or contribution to a nearby yet individual or culture bound one. These interventions help to do first things first. It is needless to proceed with background information (training approach) or work on the skill repertoire when the respective participant is in a state of mind that is not open for transcultural perspectives. Let me show this with an example. In the following extract on different attitudes towards time, Helga cites Laura, who had previously explained the mutual perception. (See: Exh. 8)

Exh. 7: “Bossy Africans”. Source: Author’s own work.

Lau: where do you infer that from?
(...) I pass it on to the group, do you agree with this?
(...) but where do you infer that from? what gives you the impression?
(...) so you would say they have a lot of things in common with us you see a lot of things in common
(...) mmm yes I gladly pass it on to you [addressing the group] do you primarily see parallels between them and us or do you rather see differences
(...) and otherwise you feel a strong connection to these women so you said I am getting back to that they acted in a bossy way can you pin that down what was the reason Arnika what might have given you the mh
(...) so it legitimizes the behavior also the fact that they have a lot of money that they have a social position?
(...) so the mere fact that they dispose of the financial means and hold a social position is an explanation pattern for their behaving this way or makes it easier for you to accept it
To strengthen her argument, Helga paraphrases a supposedly unframed predication of Laura, which implies that Laura had directly evaluated polychronical-oriented people before. Helga obviously leaves a pause for a confirmation from Laura about the correctness of the citation. Since Laura does not respond right away, Helga starts explaining the context ("that was the", line 386), which shows that she assumes that Laura does not remember the instance. However, the lacking minimal response resulted from a frame disagreement. This is why Laura finally corrects Helga’s ascription by adding the missing perspective of a polychronical-oriented person regarding himself ("he thinks he’s flexible", line 387) and monochronic culture ("he thinks we’re stubborn", line 387/388).

The short pauses before the change of perspectives are typical for these instances. Obviously, Helga has understood the change of meaning achieved by the other-correction, because now, she starts her dissent with "but" in line 390 and continues with her argument. Verbal frame controls function as cooperation preserving strategies and are used by trainers to pursue learning targets. Besides this, frame controls are face-saving and allow the possibility to integrate otherwise unacceptable statements made by participants.

According to my experiences, these more indirect strategies need to be explained and framed meta-communicatively when working with engineers. However, the ‘mantra’ of ‘it depends’ (on the perspective, the context, the protagonists, the influences of different cultural perspectives) is indispensable learning – also for the intercultural expert. A purely culture-reflexive perspective will not connect the frames that are needed in intercultural engineering.

### 3.4. Solidarize

Showing solidarity to the participants is necessary when participants feel insecure, show resistance or emotional judgements. Solidarity is shown when the trainer constructs himself as a co-member of the (cultural) world of the talking participant. Showing solidarity does not mean to agree with the content of statements or to legitimate them. This approach works on the relationship level and acknowledges that it is alright to feel and see the world like that. Showing solidarity holds contact to the participants. Displaying solidarity is especially relevant when evaluation, devaluation and prejudices are uttered. On the one hand, the trainer is not to confirm the content of the judgement, on the other hand, he needs to stay in touch to work on the matter. The face-saving culture reflexive interventions by adding the perspective (e.g. “for us", “he thinks", Exh. 8) is an explicit way of showing solidarity. Besides the verbal perspective management trainers can also alter meaning with paraverbal techniques and changes of performance. To elucidate contexts and achieve subtle “switches of meaning” (Plessner 1961) trainers use intonation, volume, speech rhythm, and different voices. These methods do not only clarify culture-bound thinking and perception, but are also applied to correct utterances. (See: Exh. 9)

During the discussion on communication and selective perception of signals, the group debates the sense of beauty in other cultures. In this instance Thailand is used as an example. With “they” Yvonne refers to Thai people, and then further specifies this with the category “men”. She had noticed long hairs on their faces (often growing in warts), which is thought to be for good luck. Obviously, neither Yvonne nor Helga know about the meaning of this custom. The formulation of “such” produces a distance, as well as the emphasis on “hairs”. The utterance is interpreted by
Helga as an evaluation as her own statement shows (“I also find that strange”, line 6). Helga’s description of the failure to cut facial hairs indirectly demonstrates her standards. Her stretched predicative “strange” (line 10) ranges from irritation to debasement. Yvonne’s comment is not clearly audible, but the intonation of her minimal responses does not hint at dissent to Helga. The situation is well suited to start moralizing, for example to list further odd or absurd details and to end in communication of stereotypes. But Laura intervenes, although she does not explain the phenomenon or comment on the previous statements as culture-bound evaluations. Instead, Laura repeats the predication “really beautiful” twice (line 11, 13). Since the predication follows a negative evaluation, there is irony to the semantically positive statement. In a study of applied discourse analysis, Hartung (1998) describes more than thirty forms of irony in daily communication. Hartung shows that irony is used as an indirect communicative means for negative evaluations, especially when confirmation or disassociation of common standards are involved. Irony serves the face-saving constitution and contextualization of so-called “we-communities”. Laura’s ironic move is part of the category of “recipient evaluating feedback”, which positively or negatively comments on a previous point of view (Hartung 1998:124ff.). Laura’s ironic comment admits on the one hand that facial hairs are not beautiful. But the intonation of both ironic predications is especially noteworthy. They are spoken with a smile and are accompanied by laughter. Thereby a fun mode is introduced, which on the other hand dissociates Laura from the evaluation of Helga and Yvonne. An ironic utterance gains impact by its dry reversal of the content. What does this fun modality mean here? The character of frame correction, which is used by Laura, becomes more evident in the next paragraphs. A solution to the mysterious meaning of facial hairs is not carried out. Instead, Laura refers to an interior, not exterior reality. In reference to something, which is obviously visualized to the participants, Laura speaks about interpretations of participants and their underlying emotions (“that is not exactly what confuses us about others”, line 15f., “where we really experience problems”, line 18f.). In her opinion, “sorites” (line 19, which means that premises are arranged so that intermediate conclusions are omitted) are the problem. Although Laura uses the personal pronoun “we”, she abruptly breaks off the utterance, a verb is missing. She avoids saying that the group has prejudices. This could be a reason for the several breaking offs (see line 14 and 15), where it is not clear what she wants to say. Instead of characterizing utterances of participants as prejudices or stereotypes, she presents an inner monologue of deductions with a clearly changed intonation (line 21ff.). The formulation “someone who, which normally has a moral character (Ayaß 1996), is embedded in this form of introspective talk. The droning voice with the singsong intonation represents the returning cliché as the final conclusion (of the story) and clearly demonstrates the citation character. With a different voice, Laura stresses the “value”, which serves as a basis for the conclusions: “cleanliness” (line 23). By means of this modulation, Laura distinguishes the knowledge of the overriding value from the presented interior monologue. In a second round the introspective talk is repeated, simply marked by a changed pitch of voice (see line 25ff.). This time it takes place without a frame switch to the underlying value. Laura finally formulates a rehabilitation, which contains a double meaning: on the one hand the phrasing “must be a poor devil” (line
29) semantically remains an ascription of the inner monologue; on the other hand the modulation of voices returns to official talk. Apart from this switch to official talk, the rehabilitation of a victim of attributions implies pity and cites a less face-threatening statement. Thereby, the ones who share the attribution are rehabilitated. This strategy, which is carried out by a change to fun modality and marked transits to a serious mode at the end, is a returning element. It is this pattern that helps to answer the question what was achieved by Laura’s predication with the fun modulation in the first sequence.

Fun modalities and paraverbal interventions allow ambiguities, several contradictorily frames at the same time and help to share the perspectives of the conversational partner(s) without endorsing the content or strategies. Starting an intercultural training session for engineers with the winking introduction that the program will be like explaining for a few hours how women ‘function’ and then find the best strategies to deal with ‘them’ explains more about the limits of linking technical and cultural frames than many explanations.

The biggest challenge of using the different approaches and juggling with them is the micro-management of conversation in the training. We trainers have to be constantly aware of the multitude frames we are working in. In every moment the awareness of the frames (from broad frame to ongoing frame) is necessary: What is the goal of the training? What is the objective of this module or unit, what is my personal objective in it? What is the state of the collective discourse of the group (ethnocentric or ethnorelative, Bennett 1986)? What is the personal challenge with respect to the topic and targets for the speaker’s personality and learning at the moment, just to name some of the frames. The answer to these questions we need at cyberspeed to decide what is the best next communicative step to foster intercultural learning and competence. The good news is, the four approaches are already used in intercultural training and only have to be practiced consciously. The benefit is that they enable an emic perspective, so that trainers and participants in the technical field can and must cooperate and share perspectives to generate multiple perspectives and interculturally competent answers.

4. Conclusion

It is a basic insight regarding intercultural competence development that there is no right or wrong when dealing with cultural peculiarities. At best, there may be more or less appropriate approaches. This also holds true for the conduct of training. However, participants – and in particular but not exclusively engineers – expect true-false evaluations, practical tips, hands-on ‘how-to’ knowledge etc. when attending an intercultural training session. This leads to contradiction between the technical requirements on the one hand and culture and communication on the other. Sooner or later in the training there is a treacherous resistance when participants realize that the ‘true-false’ and the ‘how-to’ questions are not being answered easily. Training that aspires to go beyond a binary logic requires further didactical refinement. Cultural experts know a lot about cultural differences, specific cultures and the challenges of cross-cultural cooperation. Moreover, intercultural training programs usually aim at ‘better’ understanding, ‘less’ prejudices, ‘more effective’ collaboration. Four risks for
the trainers in these content oriented and normatively loaded seminars can be identified:

I. concentrating solely on the content level, i.e. giving information, explaining, arguing, ‘enlightening’ stereotypic interpretations of behavior, teaching etc.;

II. evaluating the contributions of the participants as ‘right’ or ‘wrong’, politically correct or not – in line with the objectives of the seminar etc. but not in line with the practical problems of the target group;

III. discussing and arguing (“yes, but…”) when resistance arises, and when the participants recognize that there are no easy to find ‘right or wrong’-answers to their challenges;

IV. ending in a confrontation of cultural and technical perspectives.

As the examples of educational interpretative work show, intercultural teaching and learning is a complex production of frame relations in communication by means of verbal and paraverbal techniques. A shift of meaning, achieved by rephrasing utterances or the use of different voices, helps to bridge delicate situations in which participants remain in culture-bound interpretation patterns, and it thus prepares the perception of multiple perspectives. This way, trainers stay cooperative and can pursue their learning targets. These practiced methods are neither consciously known nor systematically used. According to my observations and experiences, argumentations on the content level and the instructional and ‘politically correct’ method are a lot more common. So far, results from applied discourse analysis are hardly used for consulting or train-the-trainer seminars. When using them consciously, trainers and facilitators may act as co-members and find answers together with the participants. Cultural and technical competence can then mingle to achieve a synergetic solution process.

Taking over this attitude and consciously practicing a multivalent approach has several consequences for us professional trainers: Firstly, intercultural learning also concerns the trainer (who normally lacks technical expertise) and means to learn to anticipate frames which are commonly used in the professional subculture of engineers. Secondly, we need helpful models (like the square presented above) for self reflection as well as metaphors for a dynamic notion of culture and intercultural competence (Nazarkiewicz 2011). Thirdly, the two latter requirements are not restricted to the field of engineering. The expectation and desire to learn what is ‘right or wrong’ when working internationally is not exclusive to engineers but is shared by many other target groups as well. The ideas introduced in this contribution in view of an interactive learning process that involves trainers and participants as partners at eye-level might be a helpful model for many contexts and target groups.

5. References


**Endnotes**

1. The interactive strategies of trainers in intercultural learning can be shown through conversation analysis. The special contribution of conversation analysis to the practice is its orientation to practiced solutions, conversational patterns, which we permanently use, but do not necessarily (consciously) know of (Bergmann 1994).

2. In line with the definition of the editors, with engineering I mean “any intercultural social or corporate field that is characterized by a high importance of technology and specialized knowledge of those working with this technology” (Mahadevan/ Mayer 2012:1).

3. Also see Tannen: “People approach the world not as naive, blank-slate receptacles (…), but rather as (…) veterans of perception who have stored their prior experiences as ‘an organized mass’, and who see events and objects in the worlds in relation to each other and in relation to their prior experience. This prior experience or organized knowledge then takes the form of expectations about the world, and in the vast majority of cases, the world, being a systematic place, confirms these expectations, saving the individual the trouble of figuring things out anew all the time.” (Tannen 1993:20ff).

4. The data presented here stem from several audio recorded culture-general training events in a service context in Germany. As research results from conversation analysis describe regularities the findings can be generalized to other training contexts. All transcript extracts have been translated into English by the author and have been simplified to a maximum for better readability. For more information about the data and methodology see Nazarkiewicz 2010b. Insofar as they are relevant for the analyses presented here, some special paraverbal phenomena have been indicated in the transcript extracts according to the following transcription conventions:

Text cues that have been added for better understanding of the translated text are enclosed in square brackets: the [one who’s] polychronic Overlapping passages within utterances are indicated by special brackets: A: ↑ B: ↓

Pauses in conversation are indicated in seconds in round brackets: (1,0) = 1 second, (0,25) = quarter of a second etc. break offs are indicated by (.)

Paraverbal descriptors for indicating how something is said apply to the text between the opening tag (<<paraverbal descriptor>>) and the closing tag (>): <[stretched]> strange >

Unintelligible passages are represented by empty round parentheses: ( )

Uncertain transcription is indicated by enclosing the text in question in round brackets: (and)...
Complexities of Intercultural Engineering across Organizations

Abstract (English)

Engineering projects in international environments entail considerable challenges especially when it comes to managing teams across organizational borders. These are not only driven by technical issues related to the subject of the project. Additionally, the fact that when working together, groups of people with similar boundary conditions such as background knowledge or working objectives tend to create their own collective identity is of importance. This feature contributes to an increasing intercultural complexity. If the project setup furthermore envisages cooperating with an external partner company this complexity increases even more. This happens especially because new subgroups with a culturally hybrid position are being created. In this context this article analyses culture and collective identities in order to better understand which tasks will have to be managed within intercultural engineering projects. The problems identified are discussed along a generalized setup of an international process standardization project that is developed in three steps. This approach is supposed to, on the one hand, lay the foundation for a deep understanding of root causes of complexities and, on the other hand, the idea is to give practical hints for project managers willing to understand and manage cultural complexity in a target oriented manner.

Keywords: intercultural engineering, collective identity, cultural complexity, cross-company collaboration, managing global projects

Abstract (Deutsch)

Internationale Projekte mit ingenieurbezogenem Aufgabengebiet bringen zahlreiche Herausforderungen mit sich – insbesondere wenn Projektteams über unternehmensgrenzen hinweg aufgestellt sind. Diese Herausforderungen sind nicht nur auf die technischen Aspekte zurückzuführen. Neben anderem spielt dabei auch die Tatsache eine Rolle, dass Personengruppen mit vergleichbarem Hintergrund wie Fachwissen oder einem vergleichbaren Zielsystem im Rahmen einer Zusammenarbeit dazu neigen, eine eigene kollektive Identität auszuprägen. Dies trägt dazu bei, dass die zu steuernde Komplexität zunimmt, insbesondere vor dem Hintergrund kultureller Unterschiede und interkultureller Zusammenarbeit. Im Falle, dass eine Projektorganisation zusätzlich vor sieht, dass ein externer Partner im Projekt zu integrieren ist, steigt diese Komplexität um ein Vielfaches. Gerade in diesem Fall spielt die Bildung von zusätzlichen kulturell hybrid positionierten Gruppen eine wesentliche Rolle. In diesem Zusammenhang befasst sich der vorliegende Beitrag mit der Analyse der Komplexität.
1. Introduction

International or even transnational companies are characterized by having locations in different world regions (Hill 2008). No matter which approach to internationalization they have taken so far, they are facing similar challenges when it comes to working together in teams – especially across organizational borders.

When growth has been achieved by acquisitions of existing companies with distinct knowledge or when new international subsidiaries could not exclusively be staffed by expats from the home country, the organization becomes fragmented (Kutschker / Schmid:689ff.). People with different know-how are working at different locations. Nevertheless effectiveness in terms of letting the best skilled people work jointly on strategic tasks and projects and efficiency when trying to achieve the best performance at the lowest costs are common objectives. So headquarters’ top management might tend to be willing e. g. to set up teams that are spread over various locations e. g. in order to establish standardized processes in administrative but also in more direct areas of business such as research and development, procurement, production or sales (Huber et al. 2002).

In any case managing teams in such a heterogeneous global context is a complex task. Technical issues, e. g. because of different working standards or software tools, communication problems, time zones, languages, or different partners involved are potential causes for problems that need to be solved (Phillips / Sackmann 2002). However, additionally cultural differences between groups of people can be expected to appear and will then ask for attention from the project management. This is the reason why an intercultural view on complexity in global projects might help understand situations and avoid future problems in day-to-day management.

This paper focuses on trying to explain how complexity regarding intercultural collaboration increases when working across organizational borders becomes relevant.

2. Approach and structure

Starting from the situation described above basic terms relevant for the further argumentation are explained in the following.

After the subsequent closer discussion of the managerial challenge of managing projects in intercultural engineering a theoretical model is drawn up. This model is mirrored by a generalized example which could take place any time in a real business environment. It is designed to explain particular practical issues that may and will arise when setting up and running collaborative engineering projects across organizations.

Section four shows the increasing cultural complexity starting from a single company setup, moving to a global context, resulting in cross company collaborations when even external partners have to be involved.

A discussion of the described effects accompanies the model and the illus-
trated example. Conclusions are drawn on the effects on project managers who are confronted with the challenges and complexities described.

3. How to understand Intercultural Engineering in this context

In order to draw a clear picture of the challenge discussed within this article it is necessary to clarify and define which terms to use and how. Additionally a closer insight into the setup of the discussed working environment has to be given.

3.1. Relevant issues regarding Intercultural Engineering

Since various approaches exist to describe intercultural complexity it seems to be necessary to clarify the way significant aspects are understood within the argumentation of this paper

Engineering as the business context of the given subject is to be seen as it is described by Mahadevan and Mayer (2012). Thereby the definition of the American Engineers’ Council for Professional Development is applied (Encyclopedia Brittanica, 2012). This allows for using the term for all types of work with a technical focus such as design of mechanical or electrical devices as well as computer science-related tasks. So for the further discussion the term will be used to describe tasks as engineering work whenever people collaborate creatively trying to solve future problems in a technical environment (Rammert 2007). Following that, people working in these areas may be addressed as engineers in general.

Intercultural engineering thereby means that these engineers are supposed to be working together in teams that adhere to different cultures or rather cultural groups. This indicates the assumption that somehow it must still be possible to differentiate different cultures – even though scholarship does not completely agree upon this issue.

In order to better understand how these teams may act and what reasons might exist for their behavior the term culture should not only be used as a ‘container’ for nationally coined specialties (critique of Hofstede 1980 and related studies, e.g. by McSweeney 2010 or Tjosvold / Leung 2003). In the given subject it should be used to describe a group of no matter how many members with shared beliefs, values, and norms implying a micro-level view on the interpretation of culture (Martin 2003).

The people adhering to one or more of those groups do not necessarily have to come from the same country or region (Phillips / Sackmann 2002). They need not share the same values, beliefs or religious practices (Mahadevan 2008). Immanent to this view and interpretation is that the differentiation between groups helps create a group identity. This may happen because it is easier to have a common ‘enemy’ than to achieve well-organized cooperation from scratch. An important characteristic of such kinds of groups is the dichotomy of adherence. This means that a person may only be part of one group of a pair of oppositional groups at one time. An example is when workers – or in the discussed case engineers – develop a shared but distant attitude towards corporate management and their decisions. This kind of resulting collective identity may be identified in day to day business e.g. by people who, on the one hand, come from the same company or organization but, on the other hand, are talking about ‘us’ and ‘the others’ (Baumann 2001, Mahadevan 2008).

Whenever interacting socially, humans construct relative difference between perceived categories of ‘us’ and ‘the others’ (Ricoeur 1992). Under normal circumstances, this is a fluid process which constantly creates numerous identities. Yet, collective identities might also become dichotomist and absolute. If this happens, individuals are perceived stereotypically, as inferior and as more alien than they actually are. This process is called Othering. In organizations, othering very often occurs as soon as collective identities or the values and
beliefs of an organizational sub-group are endangered, for example, due to processes of change or increasing complexity.

As Goffman (1969) has shown, individuals in organizations interact both formally and informally to create collective identity. Based on Goffman, it is assumed that the informal practice in daily business as the source for differentiation and of identity within a group is stronger than formalized organizational structures.

The root cause for this differentiation can be described by the so called interpretative paradigm. This explains that causes for differences may be found in the different way of how to find and make sense in actions and behaviors and the interpretation of this (Hatch / Yannow 2003). That means that it may make a difference if this sense is being interpreted by an outside observer or by the group members themselves. So the emic (from the inside) vs. the etic (from the outside) view on behavior creates an area of potentially conflicting interpretations that has to be taken into account (Mahadevan 2009).

However, individuals may adhere to more than one group at the same time. E. g. technical project management may be executed by an engineer. So this person adheres to the potential groups ‘project management’ and ‘engineers’ each with a collective identity at the same time. The etic perception of this person may depend on the very specific situation. According to Mahadevan (2010b) these individuals may be addressed as bi-cultural due to their hybrid position uniting two different collective belongings in one person.

All these issues lead to the conclusion that when discussing successful Intercultural Engineering it is also about managing cultural complexity within and especially across organizational borders.

3.2. What has to be managed

In intercultural engineering projects, various issues have to be managed by the project management. At first sight it has to be ensured that an appropriate solution for the given problem will be achieved in time and budget. However beneath the sheer complexity of the technical problems that have to be solved e. g. when jointly designing new products, production processes or IT systems (a detailed example will be given and discussed in the following sections) other issues e. g. language, time lag, communication systems or even varying legal boundary conditions have to be managed (Binder 2007).

Additionally project management as well as the team members have to deal with cultural complexity that may be driven by a fragmented, globalized or even delocalized organization. Furthermore it has to care take of the interests of the project’s different groups of stakeholders inside or even outside the project team (see 3.3). In terms of the interpretation of culture explained above numerous different sub-groups might arise. This may result in individual behavior based on group specific values and objectives which then may lead to collective identifications and a perception of groups of ‘us’ and ‘the others’.

Factors that result in differentiated groups may be interpreted as dimensions of interculturality. Dimensions that could be the cause for fragmented sub-groups may be gender, religion or ethnic group adherence, territorial origin, or age. In an engineering or business situation the allocation of power, know-how and skill set, fears, or shared objectives can also enforce a differentiated perception of group affiliation. All these factors might lead to different interpretations of tasks, decisions and actions (e. g. Phillips / Sackmann 2002). What makes it even more difficult to assess and understand a specific case is that the importance and effect of a single dimension may vary over time (Mahadevan 2010a).

When striving for a successful engineering project misunderstandings and exaggerated opposition between distinct groups have to be avoided. In order to be able to manage the possible or the de facto cultural complexities of a distinct
case a good understanding of what the critical factors are and how to find a way to come along and create a working collaborative environment across organizational borders is necessary. It is a management task to create intercultural competence not only within the management team but also within all affected groups of stakeholders. Accepting and not mixing inside view and outside view of actions makes the difference and requires intercultural competence.

3.3. A setup indicating intercultural collaboration

In order to illustrate the above introduced approach to describing cultural complexity in engineering collaborations, in the following a setup representing a generalized case as it could occur any time in real life business is presented and described.

In the first step of the setup the case describes a singular company working at only one or just a few locations that are not spread very far. The task for the engineering project is the IT implementation and rollout of business processes in a standardized way for this company. The overall objective in this example is to increase the efficiency in corporate processes by using the company’s business related IT systems for which enterprise resource planning (ERP) systems from companies such as SAP or Oracle are examples.

Due to this the project deals with the handling of the goods receipt process. That means that after a successful project the complete company is supposed to work in the same way with the same kind of barcode scanners using the same formats of labels and the same business documents, e.g. order, advanced delivery notice, delivery note or goods receipt. It also means that a number of fields of business are affected by the new process like logistics, warehousing, finance and IT.

The engineering task herein is to figure out a suitable process and IT solution and to implement that in the operational organization as well as in the company’s ERP system. The business problem and requirements can only be described and assessed in an appropriate way by individuals working in the respective fields of business. Because of this a close collaboration with representatives from these fields has to take place. This is achieved by establishing an extended project team which is staffed not only with technical but also with business people. Exh. 1 schematically shows what the project setup may look like.

The blocks shown in the figure represent different groups of stakeholders of the project. These groups have their own interests and are constantly creating collective identities through practice. The figure only shows a simplified abstraction of a potential real setup since there could be more sub-groups e.g. business unit managers or software developers. In addition the different fields of business could be depicted separately. However in favor of the clearness of the message of the illustration these blocks are symbolized by the universal block for the Affected fields of business.

The relations from group to group are drawn in bi-directional arrows. They describe the requirement for interaction and collaboration in the project setup. This also indicates the necessity to achieve an intercultural understand
ing for positive co-operation within the engineering project in general.

Top Management of the company charges the project and interacts with the Project Management by defining targets and by approving project deliverables. Top management is responsible for the company’s earnings and is willing to increase process efficiency. At the same time it will take care that the project’s budget will not be exceeded. Project management, on the other hand, is striving to achieve the required implementation of the standardized processes in time and also in budget. However, the objectives behind the actions of the groups may result in different behaviors. E. g. when the project needs more financial resources than planned for previously in order to achieve the best technical solution a conflicting situation might occur. Top management will probably not assess the situation in the same way as project management will do. A decision preferring the more economic but technically second best solution might cause a reaction of in-comprehension since in the perception of project members that might lead to a situation where business requirements cannot be completely fulfilled anymore. Project management may think that ‘they’ from top management do not know what they are talking about – and feel distinct.

Continuing this, project managers will have to sell the decision to the project team in any case. It is to be expected that in the engineering team the described reaction may even be stronger, resulting in an increased cultural distance between technical staff and project management.

For the Affected fields of business the attitude towards the project might be that they are willing to improve their day-to-day work but with the least possible changes and effort. In addition the importance of the usability of a future solution may differ from the more solution oriented view of the technical staff. This difference could result in the perception that the engineers do not understand business requirements because they are too concentrated on the technical solution and disrespect the requirements from business. These should be decisive from the business point of view because only the people from the affected fields of business will have to work with the new solution in the end.

Such a situation could also happen to the group built by the staff that was assigned to represent the business part within the project. They are charged e. g. to express requirements or to test solutions. The block representing the Project Staff Business is depicted as not fully being part of the project’s organization since they surely are part of the project itself but they will also still be involved in the daily business. That means that affected people will – due to their hybrid position in the project – on the one side somehow feel to be a part of the project but at the same time also feel as outsiders e. g. due to the reporting structure they still belong to in the regular daily business. It may also happen that they remain disjoined because they represent ‘the others’, meaning the users of the solution located outside of the project team.

Additionally there might be different depths of understanding regarding the technical problems occurring in the project. This may result in a behavior of the ‘real insiders’ of the project – in this case the engineers as the technical project staff – increasing the gap between the two groups by making them even more alien than the business staff might ever see themselves.

On the other hand in the perception of the colleagues in the affected fields of business involved the project staff business represents the project and its solutions. By this they might somehow also be segregated from their regular teams and be confronted with similar conflicts as the engineers as described before are.

In any case the setup for a singular company already contains various sub-groups constantly creating their own collective identities and group cultures. To get along with this situation is already a challenging task.
4. Increasing cultural complexity

When extending the project setup with additional stakeholders the situation regarding cultural complexity changes significantly.

4.1. Collaboration in an international enterprise

In international environments a project as described in the given example will have to work not only nationally but with numerous locations in different regions of the world. That means that new stakeholders have to be added to the setup. Exh. 2 shows the extended example showing an international organization with headquarters and local subsidiaries.

The project is being managed centrally with a core team of business and technical staff. Additionally people from both disciplines of each subsidiary are integrated into the project team.

The solution has to be implementable in all locations and, due to that respect, the local requirements from the subsidiaries. So the local team members have to communicate these requirements to the central project team.

Because the overall objective of the project requires a company-wide standardized solution it has to be rolled out to all locations which again requires close co-operation with local teams from all locations.

What can be seen in the figure is that the number of necessary interactions between the relevant sub-groups rises. E.g., the top management from headquarters interacts with the newly added top management of the subsidiary. As an example of this interaction the top management of the subsidiary receives the order from headquarters that a standardized solution shall be implemented. For the subsidiary a standardized solution may not be completely desirable. A solution dedicated only to the subsidiary may fit better to the individual requirements than a standardized one could ever do. Nevertheless for headquarters it might be a good idea to try to increase efficiency by having streamlined processes. People could be exchanged much more easily and IT support that may be provided centrally will create less costs compared to a solution per subsidiary. Because of these different interests the top management of the subsidiary may come to the conclusion that ‘they’ from headquarters are not really interested in the local concerns and do not understand how business has to be done in a location. And again distinct collective identities may be noticed.

A similar thing might happen when the top management of the subsidiary has to tell the affected fields of business that there will be a new, centrally designed solution for the goods receipt process. Once again – this time for the local top management – this has the consequence that they as group of individuals find themselves in a hybrid position where they have to unite views and values of corporate top management as well as those indicated by local interests.
The chance for a lack of understanding gets even higher when people from the local teams have to be sent to work in the project team, since these people will have to reduce their time for their day-to-day work and as a consequence leave more work for their regular teams. The circumstances for the local engineers are comparable.

Additional to the project immanent drivers of cultural complexity the other etic dimensions like territorial origin or religion become much more important. So the group of engineers may consist of people from different countries – all again bringing their individual boundary conditions into the project.

So apart from the increased challenge to find a suitable technical solution for the standardized process, the cultural complexity is being multiplied by each additional subsidiary that has to be considered in the project.

4.2. Including an external partner in the project

In the further development of the example it is assumed that the workload of the described project is too high for the company itself. Daily business has to go on and not enough people can be disengaged from their regular work. So the top management of the company decides to hire an external partner to co-operate in the project. To involve external partners in labor intensive projects is very common e.g. in IT implementations or in engineering projects.

The external partner will help with technical staff for the solution and with rollout teams. Since these external people also need their internal organizational structure it is very likely that the partner will establish their own project management that will then have to work together with the company-internal project management.

The new project team members will bring their technical and business expertise and their manpower but also their own background and corporate culture into the project. So the project gains a new cultural dimension that has to be taken into account. The fact whether a person belongs to the internal or the external partner will lead to new sub-groups each having its own collective identity.

Nevertheless the externals are supposed to be a part of the project team. By joining this team and by accepting project immanent values and behaviors and objectives the external projects members gain new roles. That means that they too may become bi-cultural in terms of being insiders of the project but outsiders of the partner company at the same time.

What happens to the project organization when the external partner is integrated in the project is depicted in Exh. 3.

The new groups from the external partner are supposed to support and co-operate with the groups that existed before. The central technical project staff is extended by a group of external engineers. For the support of the rollout in the subsidiaries local rollout teams may also be staffed with external help. Due to that the new groups might also interact with all the other groups where an interaction has been established before. In addition interaction with the
internal business and technical project teams as well as with the local rollout teams will take place.

The consequence is that the intercultural complexity again rises. And that happens not only because there is one new player. That alone could already be problematic because of many reasons that can occur when companies work together e.g. budget discussions or technical challenges. However, in comparison to the steps before, what is very noticeable is the very high number of new intercultural relations and interactions between sub-groups that occurs – especially because of the new project organization. Moreover all of those new relations may cause problems and, for all, their own approach to handle the challenges of interculturality has to be found. This complicates the management of the cultural complexity in such engineering-related collaborations enormously.

5. Implications

In engineering projects cultural complexity needs dedicated attention. This is especially true in cases which involve cooperation across organizational boundaries.

For company top managers this means that it should not be underestimated to what extent this complexity is being increased when external partners are supposed to be integrated. It is not only that new projects members have to get involved in technical issues but also that there must be a dedicated task to make externals become ‘insiders’ – at least to the ends of the project at hand. This requirement might end up in a certain amount of costs being created. However, if misunderstandings and problems within the project can be avoided it is assumable that these costs will pay off in the overall project calculation.

For project managers the implication is that they should draw their attention to the process of creating and developing sub-groups with collective identities. When handled appropriately this process does not necessarily mean a risk to the project’s success. However to be aware of the drivers and potential effects may help to enable people to interact in a beneficial way. Especially sub-groups that work in the in-between and may develop hybrid identities and multiple belongings – in the discussed case e.g. the project staff business – need special attention. These groups may help to increase acceptance within the affected fields of business. In case management succeeds in not letting the perceived strangeness and distance between ‘insiders’ and ‘outsiders’ grow too much. Regarding externals, this awareness may even lead to better benefit from their experiences and a more neutral view on company-inside conditions. In summary, this involves balancing and integrating etic and emic perceptions across organizational boundaries. In such a way, new, helpful, creative ideas may find better acceptance and could be exploited in a much more target oriented way.

Yet, as often with hybrid individuals, those working across professional and organizational boundaries constitute a minority within the international project. Therefore, it is likely that they will be perceived solely in terms of their “otherness” but not in terms of their specific skills and competencies which might contribute to the overall project’s success. In such a way, their position is similar to the one occupied by bi-cultural individuals within the wider societal field (Mahadevan 2010b). As literature suggests (ibid.), these bi-cultural individuals can only leverage their full potential if they are able to integrate all their identities into one. Hence, to strengthen the position of professional or organizational hybrids, corporate human resource development needs to devise measures of how to utilize the specific potential as organizational and professional boundary-spanners.

For project members in general it might be helpful to have background information about the discussed effects of building collective identities. If all stakeholders are aware of that they might be more open and more willing to overcome distances, avoid othering of groups and

Exh. 3: Setup including an external partner organization. Source: Own figure.
create a successful project outcome. This suggests that organizational members need to be made aware of the interpretative cultural paradigm and how this influences their daily practice.

This means that human resource development and external interculturalists need to integrate these issues in a targeted oriented training program. This could help to increase awareness before misunderstandings and escalations in a project appear and by this maybe even avoid these. It might also be possible to acknowledge cultural complexity in today's internationalized project work across organizational boundaries most fully. However, this raises the practical issues of how to develop human resources which work beyond organizational boundaries. It also implies that both human resource managers and interculturalists need to be aware of all cultural aspects of an international project across organizational boundaries, not only the organizational or the national-cultural ones. Furthermore, it raises the question of which skills and capabilities are actually needed on the human resource department's and the interculturalists' side. Surely, this must go further than mere HR-related and national-cultural knowledge. This suggests that methods of collaborative training which acknowledge the various areas of expertise of all actors involved needs to be pursued and developed. For doing so, both integrative and collaborative theories and practices need to be devised.

6. Conclusion

Intercultural engineering in globally co-operating projects holds numerous possibilities to create misunderstandings and conflicts. Besides other more technical project aspects it is the cultural complexity which increases significantly the more stakeholders and sub-groups are involved in the project.

One of the root causes for this complexity is that sub-groups with distinct objectives, target systems, skill-sets or boundary conditions tend to create their own collective identity. This will result in different interpretations of projects goals, the approach to power or hierarchy, or to management decisions. Even with people who nominally work in the same field of business it cannot be taken for granted that they will act in a comparable way. For example it might be decisive whether a person works at the headquarters or the subsidiary. Headquarters staff might be willing to integrate, standardize and to increase overall company efficiency. However people from a subsidiary may prefer to stay flexible and to protect their freedom and individuality. These kinds of differing boundary conditions may even also be identified between different subsidiaries.

Cultural complexity increases when a project not only has to collaborate across internal organizational borders. As soon an external partner has to be involved the number of intercultural relations drastically rises. This is the case because external people – no matter in which position they work within the project – will always bring their outside view and attitude into the project. Moreover this also means that for all these relations a specific solution to overcome cultural barriers has to be found.

It is a management task to handle the project immanent complexity and to provide the intercultural competence necessary for all stakeholders of the project. However when understanding the general approach described above at least it should be possible to understand why this is necessary and what the drivers of complexity are. Project managers should be enabled to identify upcoming differentiators along the potential dimensions of interculturality within a given project setup. As well they should be able to identify critical relationships between groups and find ways to build the competence to handle the resulting cultural complexity. When doing so the distance between stakeholders may not disappear but may be used in a beneficial way. Individuals or groups in culturally hybrid positions could better bring their extraordinary know-how and experiences by offering new and maybe
more beneficial approaches to solve the project’s given problem.

Due to that when training people or when selecting staff for an intercultural engineering project the intercultural competence should play a significant role. Sensitized people who are aware of the causes for the behavior of themselves and of others will then probably work in a more focused way on the targets of the project and be more willing to overcome distance between ‘us’ and ‘them’.

For further work in the given subject it would be interesting to investigate additional setups e. g. matrix organizations to particularize the findings regarding complexities of intercultural engineering aspects especially detailing the effects of culturally hybrid positions. From a more technical point of view it might also be helpful to search for a transparent approach to assess and compare the complexity of different setups and project situations.

7. References


Failure and success stories in Intercultural Project Management

Abstract (English)

Technical project management (PM) requires constant individual interpretation with regard to expected project success or failure. This article shows that narrative sense-making with regard to PM is a crucial factor of how future project success/failure is interpreted. Based on a long-term interpretative study of an intercultural project in a technical company, we identify three steps of narrative sensemaking: (1) retrospective failure stories; (2) ongoing failure storying; (3) culturalized failure stories/culturalized strategic success stories. We show that culturalized interpretations of a project’s failure are linked to the individual need to simplify reality. The danger of culturalized interpretations is that they neglect potential PM-related project issues and hinder the development of intercultural PM competencies. We suggest the analysis of stories, especially of ongoing failure storying, in order to prevent culturalized interpretations from prevailing, thereby contributing to theory and practice of PM and intercultural education and development.

Keywords: Storytelling, interpretation, project management

Abstract (German)

1. Introduction

Technical PM across cultures is a feature of today’s cultural complexity in organizations (D’Iribarne 2008, Mahadevan 2008a). Much of it takes place across corporate sites, across societal cultures and across organizations (Meier 2004), involving the macro-societal, the meso-organizational and the micro-individual level of culture (see Mahadevan et al. 2011). When compared to one-sited PM, multi-sited or international PM requires increased coordination and communication (Walter 2004:216f.). In technical companies, PM is often linked to collaborative engineering across sites (Mahadevan 2008b). Hence, technical PM can be considered an important feature of intercultural engineering today. Following Kerzner (2008:2), a project is defined as

"any series of activities and tasks that have a specific objective to be completed within certain specifications, defined start and end dates, funding limits, consume human and nonhuman resources and are multifunctional."

As PM literature suggests (Kerzner 2008, Bea / Scheurer / Hesselmann 2008), the success or failure of a project depends less on its theoretical or conceptual foundations but rather on its implementation. With implementation, we mean not only the specific way in which PM theory and tools are applied but also the specific ways in which individuals live their roles and responsibilities within a project.

Culture has been conceptualized as an influencing factor on how PM is implemented (De Bony 2010, Pheng / Leong 2000, Pant et al. 1996). Yet, and this is our argument, culture in PM has been approached mainly through macro-comparative cultural standards and dimensions as defined by Hofstede (1980, 1988, 2003), Hall and Hall (1990), Trompenaars and Hampden-Turner (1997), and House et al. (2004). We argue that the comparative macro-cultural perspective falls short of acknowledging the complexities of technical PM and collaborative engineering. To close this gap, we suggest approaching culture not as a given influencing factor on PM but as continuous processes of inside (emic) interpretation and sensemaking. We argue that these processes of sensemaking will be visible through stories of project success and failure. In this article, we focus on how individuals interpret failure and which strategies they choose to secure success.

This article is based on interpretative qualitative research (Hatch / Yanow 2003) in a multinational company which is involved in technical PM across sites, cultures and organizations. In this article, we show that the way in which these actors implement PM is linked to sensemaking activities on an individual level. Our findings suggest that (1) individual expectations of whether the project is about to fail and (2) individual needs to simplify project reality in order to achieve strategic success are the two main factors for the emergence of culturalized interpretations in PM.

For making our argument, we proceed as follows: First, we outline the nature of PM and the impact of culture it. Second, we present how a specific project is made sense of in a technical company. Finally, we draw conclusions and highlight the implications of our findings for intercultural PM.

2. Project management and culture

2.1. Introduction to project management

Project management is by no means a homogenous concept. Rather, the term is used in multiple contexts and
defined in multiple ways. Also the term project itself is used in various ways, the definition that has been given at the beginning of this article being a basic one. Based on DIN 69901, but enlarging this definition, Bea, Scheurer and Hesselmann (2008:31f.) argue that one can speak of something being a 'project' if the following characteristics apply: (1) temporality, (2) the innovative character of its content, (3) its relative size being sufficiently large, (4) the increased degree of complexity which goes along with it. Focusing not on a project's characteristics but on its goals, Kerzner (2008:22) proposes an alternative view, namely a project being characterized by a target describing a multifunctional task and which needs to be met within the project's duration using the limited personal and financial resources available.

Following these definitions, operations which can be classified as 'projects' can be found in virtually every industry and in both profit and non-profit organizations. The responsibility for project planning and control and for managing project risks and opportunities lies with project management (Kerzner 2008:22, Bea / Scheurer / Hesselmann 2008:41ff.). This involves the dimensions time, costs, and performance / quality (Bea / Scheurer / Hesselmann 2008:38ff.) and internal and external customer relations (Kerzner 2008:24ff.).

A major aim of PM is to structure, plan and control the complexities of project reality. This concerns both project targets and project stakeholders (Probst / Haunerdinger 2007:38ff.). In technical projects, targets are often described with the help of requested and mandatory specifications (Burghardt 2006:54ff.). Secondly, all stakeholders have to be integrated with regard to the project's goals. In order to do so, it is required that all stakeholders as well as their interests and potential conflicts and trade-offs between them are known to PM and taken into account (Croenenbroeck 2004:28ff., Kuster et al. 2008:200ff.). Despite the aim to foresee and plan reality, project managers and staff have to make sure they react in an appropriate manner towards changes in the project itself, the project's goals and the project's environment (Kerzner 2008:26ff.).

These conditions require project managers to possess a universal set of skills and competencies beyond technical expertise. This involves not only managerial and operational knowledge and competencies but also leadership qualities and social competencies in interaction with all the project's stakeholders (Kerzner 2008:146ff., Schelle / Ottmann / Pfeiffer 2008:320ff.).

2.2. The interpretation of culture in technical PM

So far, culture in technical PM has mostly been considered on a macro-societal level. Several studies have tried to analyze how macro-societal cultural dimensions influence PM (De Bony 2010, Pheng / Leong 2000, Pant / Allinson / Hayes 1996, Schoper 2004). Yet, given the complex realities of technical project management across cultures, it seems doubtful that macro-cultural dimensions can predict individual behavior. Therefore, we propose an interpretative view on culture (Hatch / Yanow 2003). Interpretative qualitative research intends to uncover the meaning which actors in the field give to their doings and to the world (Hatch / Yanow 2003). This approach assumes that culture is not given objectively, but created through social interaction and individual sense-making activities (Mahadevan et al. 2011). We follow this approach due to two reasons:

First, literature suggests that it is PM implementation and not PM theory which makes the difference between project failure and success. Therefore, given a sound theoretical foundation of PM in a specific organizational setting, it is the individual action and interpretation which will be the decisive factor on project success and not the theories upon which these actions and interpretations are based.

Second, the uniqueness of each project means that every situation is new and
uncertain. The group of people involved in the project and their roles within the project will be a new or partly new configuration as well. Otherwise, their activities would not be classified as project work. Therefore, it is to be expected that this group of people will need to find a common way of doing things beyond those styles which are already known to them – they will need to create a shared Interculture (Mahadevan et al. 2011). It is with this idea in mind that we speak of inter-cultural and not of cross-cultural project management in this article.

From an interpretative cultural perspective project managers face a high degree of uncertainty, change and risk. In order to manage these conditions, they have to interpret reality constantly. At the same time, PM itself is a discipline which assumes that complex reality can be managed, structured and planned for in order to achieve project success. This implies that project managers are trained to structure and to simplify reality into dichotomist categories such as project risks and opportunities or project failure and success. In order to do so, they know and implement various tools. Yet, and this is our argument, reality cannot be simplified in such a way, and there might be cases in which the project manager’s interpretation of the project’s status is conflicting. Our article will focus on such a conflicting situation and ensuing strategies for dealing with it.

3. Research methods and field

3.1. Methods and approach of research

This article is based on longitudinal multi-sited interpretative qualitative research (Van Maanen 2006). The field is a technical multinational company which is to be called TechCorp in this article. Its organizational setting was characterized by technical projects which were conducted collaboratively across sites, in this case between a German and an Indian site, and which involve both internal and external stakeholders.

As is common in interpretative qualitative research, the research focus evolved through interaction with the field (Van Maanen 2006). Particularly, during research, actors told stories about their perceptions as to whether they felt that these projects were going well or not. In such a way, the storytelling approach became our approach of research.

Stories are an important source of managerial knowledge (Gabriel 1991, 2000). Through telling each other stories, individuals structure experiences and expectations by giving causalities to events (Gabriel 2000). Stories establish actors and their roles, and make sense of ongoing events. Stories differ with regard to how well-established their logic is. Boje (2008) differentiates between finite stories and ongoing storying. Finite stories are characterized by a clear structure – beginning, middle and end – and clear actor roles. Ongoing storying describes stories which have a beginning and a middle, but not yet an end. This means: Their logic is not yet complete. Through ongoing storying, individuals try out different causalities for present events which are still messy and complex, and not yet finite.

As Soin and Scheytt (2006) have argued, storytelling approaches might be an ideal means of uncovering inside (emic) meanings in intercultural management. Through an interpretative analysis of how technical experts perceive their practice in a specific field, Orr (1996) has given an example for technological storytelling.

Through the storytelling approach, we were able to trace a project (to be called Project X in this article) in the company studied over a period of 18 months. As every project, Project X is unique. Like every project, it required constant evaluations whether it was still on track with regard to cost, time, quality, and also communication. Yet, we were not interested in the factual success of the project but rather in the interpretations of its success or failure.
3.2. Introduction to TechCorp

TechCorp is a multinational high-tech company which delivers highly complex technical equipment to corporate customers worldwide. Its corporate headquarters are in the Netherlands; global production takes place at two sites in India and Canada. A site in Austria plays a major role in global quality management and human resources; another site in Germany coordinates global production. Corporate customers are global companies on international markets.

With the help of the technical equipment which TechCorp produces, international customers manufacture their final products which are very often patented. These patents have been secured by a high investment in research and development and therefore constitute a considerable corporate asset. After a specified period of time, these corporate patents will run out. Therefore, the corporate customer needs to produce as much and as quickly as possible of the final product before patent protection will end. Afterwards, other companies will be able to access this data freely and to produce cheaper imitations of the original product. The technical equipment produced by TechCorp is essential for production. Based on the stated market conditions, TechCorp needs to produce and deliver in time and exactly to specification. Otherwise, penalties will need to be paid. This condition makes every project at TechCorp highly time-critical.

The corporate customers of TechCorp operate on highly regulated markets. Their final products concern the health of human beings, and therefore have to meet high safety standards. The specific standards vary across regional clusters and countries, yet tend to be are equally high. This means that quality demands are high.

The technical equipment which TechCorp produces for its corporate customers is highly individualized. This means that every project is unique; each version of this technical equipment needs to be designed, specified and manufactured and delivered according to individual customer specifications. This has implications from a project management and from a marketing perspective.

From a project management perspective, the execution of PM theories and principles is of crucial importance to corporate success. This execution involves the coordination of different sites and organizations such as local suppliers.

From a marketing perspective, relationship management and frequent customer interaction are essential (Backhaus / Voeth 2006). Relationship management demands for managing customer life-cycles beyond a single point of sale, including, for example, after-sales services and engineering consulting. The need for long-term customer interaction implies that the customer might have a specific need, e.g. to buy equipment which facilitates the production of a certain quantity in a certain quality and under certain cost / time restrictions, but might not know by which technical solution this need might be fulfilled. This is due to the lack of specific know-how from the customer’s side. Hence, the final product is specified through multiple seller-buyer interactions and negotiations, involving multiple stakeholders from both sides (“buying-center” and “selling-center”, see Backhaus / Voeth 2006).

The Indian production site of TechCorp was established in 1995, TechCorp due to two reasons. First, the customer’s need for high quality demanded for cost-optimization when producing the technical equipment required. Hence, through moving to India, TechCorp intended to lower its labour-costs in production. Second, this strategy was chosen to be nearer to a potential Asian customer base.

Over the years, manufacturing knowledge at the Indian site evolved. Production was transferred there from other regions, and in the end manufacturing in high-cost regions such as Germany was abandoned all together. This process
required a large amount of knowledge-transfer from a German site, formerly responsible for production. In the process, the two sites grew together, both from a structural and from a human perspective. On structural level, both sites nowadays share corporate functions such as project control and global operations. On the human level, managers from both sites got to know each other and invested in understanding cultural differences between Germany and India. Overall, the feeling is that one has overcome cultural differences which had been felt in the beginning.

4. Making sense of Project X

This article focuses on a global production project which was conducted collaboratively by the Indian and the German site between 2007 and 2008. Until 2007, global PM control with regard to production has solely been exerted by the German site. However, in June of 2007, the Indian site was given responsibility for Project X. The goal was to manufacture and deliver customized technical equipment for an Indian customer. Project X was the biggest project ever executed directly by the Indian site. Direct customer interaction was to be handled by the Indian site as well.

In the following, we present data from the field. In the process, two types of stories with regard to the perceived failure/success of Project X are identified and presented, namely finite retrospective stories and ongoing present storying. Individual interpretations of project success or failure are categorized as either PM-related or culturalized interpretations. Culturalized failure stories and the ensuing need for strategic success stories are discussed.

4.1. Finite stories vs. ongoing storying

Project X was to be led by an Indian engineer who had been with the company for several years. He had executed smaller projects for Indian customers previously. However, immediately after this decision was made, the global production manager at the German site who had previously been in charge of global PM expressed his concerns that the Indian site would not be able to handle a project of this size. In August 2007, he refers back to the last project which had been partly handled by the Indian site. Reflecting upon his position, he says:

"Last year [we had lots of issues in PM] that caused additional costs of 50,000 Euro. And, then my manager asks me: ‘XY, are you crazy? And I go: ‘What shall I do?’ And next, I am blamed by top management. I feel like a toy robot. And then top management blames me: ‘What are you doing? And now, I really have to walk a fine line, whatever goes wrong, comes back to me. And next, top management might stop the whole project. They would not stop the project, would they? And then, I am stuck in the middle again.” (Quote 1: Ongoing storying of success/failure, German production manager)

Yet, the German production manager’s direct manager tells a different story. He says:

"When the two sites started working together on this project, it started out just fine. But then, the managing directors at the German and the Indian site stopped talking to each other. And this is why we have these issues.” (Quote 2: A finite and retrospective failure story, German member of board)

In contrast to the German production manager’s ongoing narrative, the German board member’s story is finite. It has a clear causality: It has a beginning (“when the two sites started working together”), a middle (“the managers stopped talking to each other”) and an end (“and this is why we are having these issues.”). As with every finite story, the narrative structure is well established. The beginning sets the scene for a specific event. The middle describes this event. The end highlights its consequences. The actors of the story and their roles are equally clear: Responsibility is given to “the managing directors”. In summary, this story is complete and simplifies reality, even though reality...
itself might not have been equally simple (as the production manager’s story suggests, quote 1). Communication between two individuals is identified as a main issue of PM across sites. This makes this story a finite story of project failure as viewed retrospectively.

Contrastingly, the German production manager’s statements (quote 1) can be seen as an example for ongoing storying: He speaks of a beginning (last year), and a causal event (additional costs) but does not propose a reason for why this event takes place and how it might be solved. This makes this narrative an example of ongoing storying (see Boje 2008), i.e. a storying activity which deals with present events and which does not yet propose an finite interpretation. This condition is different from the board member’s finite story (quote 2) which suggests a simple strategic solution: Have the two managing directors talk to each other and establish trust between them. Then the issue is solved.

The production manager’s story (quote 1) does not yet have such a simplifying and linear cause-and-effect dimension. Rather, it is circular: The same points are mentioned again and again, never resulting in inherent logic. Furthermore, roles remain unclear: The speaker does not seem to be able to identify a role for himself. Whereas the member of the board has identified the villains of his story (the managing directors at both sites) who caused these issues, his subordinate does not identify actors with clear roles.

4.2. PM-related vs. culturalized interpretations

As has been said, the issue of project control was an issue at the German site in summer 2007. At the same time, the Indian project manager whose role is questioned by the German production manager tells the following story:

“During the last time when we handled a project in cooperation with the German site here in India, we experienced some issues. The main issue was that costs were allocated to the Indian site but actually were caused by delays in global engineering which is comprised of both sites. But when I tried to raise this point towards our German colleagues, [the production manager] in particular, I was told that this was due to insufficient project controlling in India.” (Quote 3: A PM-related interpretation, Indian global project manager)

In the Indian project manager’s story, the current event is not seen as an issue of project controlling or costs as such. Rather, it highlights the fact that the reasons for these additional costs need to be interpreted in a way that acknowledges the complexities of PM: Due to corporate design – a global matrix-structure – it is simply not possible to allocate costs to a specific site. Hence, a request made by engineers at the German site which was fulfilled by engineers at the Indian site might well have caused additional costs based on delays at the Indian site. In summary, the Indian project manager’s story proposes a different interpretation: Additional costs as caused by PM issues due to the collaborative nature of the project. Therefore, we call this story a “PM-related interpretation”.

Yet, according to the Indian project manager’s story, colleagues at the German site did not choose this the technical / PM-related interpretation. Rather, they ascribe these issues to Indian societal culture as perceived. The following quote can serve as an example:

“When we started with Project X, everything was going fine in the beginning. But then there were these additional costs. It think that they are somehow rooted in Indian culture – Indians seem to have a different understanding of time and quality. We need to take care of this.” (Quote 3: A culturalized interpretation, German engineer, project member)

Again, this is a finite story with a clear beginning, a middle and a logical end, its roles are clear. Based on cultural standards and dimensions one could indeed argue that such behavior might be typical of Indian PM, based on assumed relative difference between polychronic (Indian) and monochronic (German) time-management (Cronenbroeck 2004:132, Hoffmann 2004:31f.).
standard-based cultural interpretations are feasible as well.

However, if one considers the complex nature of both organizational design and the project’s scope and the constant processes of cultural sensemaking involved, this rather simplistic societal cultural interpretation might not cover all project-related issues, regardless of their micro-cultural complexity. We therefore interpret it as a culturalized interpretation. With this we mean a process by which micro-level behaviour is interpreted as being directly caused by macro-societal culture regardless of or without investigating other influencing factors on professional or organizational level.

Why might this culturalization take place? Multiple interpretations, involving individual perceptions of one’s own position or reactions to organizational change and increasing complexity, are possible: Some members of the German site might feel that established local ways of handling a project do not work as well internationally as they did before. Some might realize that they need to develop additional skills and competencies as based on organizational change (e.g. internationalization) and increasing complexity. Some might fear to lose organizational status or power due to knowledge-transfer to the Indian site.

At least the ongoing storying activities of the German production manager (quote 1) suggest that he is uncertain of how his superiors might perceive his abilities to manage Project X. This might create conflicting feelings of insecurity and uncertainty which demand for being solved. Furthermore, the production manager had to hand over PM responsibilities to the Indian site which might result in a perceived loss in power. Therefore, from his perspective, he might not be able to trust his Indian counterpart in a phase of the project which is uncertain.

In autumn 2007, the issue of insufficient project control is a frequent topic at the German site. The dominant story goes as follows: Because the Indian site has implemented insufficient tools for project controlling, the project will not work out. This is true for the German production manager as well. Yet, during an interview in November 2007, he says:

“These cost issues at the Indian site will kill the project. This damned Indian-ness, it is driving me crazy! But to our organizational design [a global matrix structure, the author], it is impossible to know who has caused the costs. It need not be the fault of the Indian site. I wished they were less Indian, after all!” (Quote 5: An interpretative struggle, German production manager)

Based on the previous definition, quote 5 is an example of ongoing storying: Two conflicting logics are presented in one narrative. One the one hand the German production manager seems to be aware of the fact that organizational complexities need to be considered when analyzing the root causes of additional costs. This can be viewed as a PM-related interpretation. One the other hand, he raises the issue of Indian-ness as a current project issue. This can be viewed as a culturalized interpretation). Underlying these contradictions is the question: What will happen to me if the project goes wrong? (see quote 1).

4.3. A culturalized failure story and the need for a strategic success story

January 2008 sees major change requests coming in from the Indian customers of Project X which result in additional costs. As the story goes at the Indian site, these change requests are a result of project changes which could not be foreseen but which need to be taken into account. This might very well be the case in technical business-to-business marketing. However, it might also be an example for different styles of planning and controlling a project.

As the story goes at the German site, this is yet another example of the fact that the Indians never stand their ground in front of the customer. Frequently, the Indian communicative style is explained as being too soft, Indians being notorious
yes-persons. Based on own experiences with – mainly German and US-American customers – it was then explained that a good project manager needs to be dominant and strong in front of the customer.

From a macro-cultural comparative perspective, this can be an indication of the relative difference between high-context and low-context communication (Hall / Hall 1990). Yet, it might also be linked to a presumably higher assertiveness in German business style (House et al. 2004). What is notable is that whereas the observation of relative difference might be correct from a German perspective, this description (too soft, notorious yes-persons) is comparative and based on own cultural values. Therefore, it is an etic (outside) and descriptive ascription which fails to grasp the emic (inside) meaning of the behavior described. Rather, it is guided by own values and experiences of how to interact with a customer which are compared and then projected upon the present setting. It is not asked what an Indian project manager might actually know about interaction with an Indian customer which is not known at the German site. Therefore, the interpretations of the Indian project members remain hidden to the German site, leading to him as being perceived as incompetent.

This development suggests that a culturalized interpretation is slowly being chosen over a PM-related (technical) interpretation. For, as has been said before, from a marketing perspective, customer relationship management is indeed important to the project (Backhaus / Voeth 2006).

The perceived lack of competencies of Indian project members in interaction with the Indian customer as based on their Indianness became a major theme at the German site in spring 2008. Hence, in May 2008, an external project manager (a German national) with international expertise was introduced to the Indian site in order to manage Project X. He has worked for European and North American customers. Yet, he has never worked for an Indian customer, and he is not familiar with TechCorp as an organization. This applies to both organizational culture and design and the technical and managerial details of Project X.

As the story goes, the German production manager installed him against the wish of the former Indian global project manager who has now been subordinated to the new external manager of Project X.

In an interview in August 2008, the German production manager reflects upon this managerial change:

"The cooperation with the new external project manager is going very badly. He brings structure into the project. But his behavior is not good. The Indian colleagues like to see his butt the most. You cannot let him see an Indian customer.

We had one incident, when he practically insulted the Indian customer. You know, in India, you cannot talk as straightforwardly as you can do with a German or American customer. Also, you need to be more polite and hide your true meanings. In this case, the customer walked out of the meeting and threatened to end the cooperation, the Indian colleagues were completely annoyed, and I had to step in and to do it the Indian way, I mean, communicate politely, and so on.

Therefore, I have now cared for that customer interactions with Indian customers are only handled by the Indian colleagues. He [the external project manager] has learned PM from scratch. He is very experienced. The only reason, why I keep him within the project is that I do not want the project to fail.

He [the external project manager] says: 'The Indians are capable of nothing. They are at the very beginning. Their project management skills equal zero. The Indian project manager has phoned me twice. They want to de-install the external project manager. But I don't believe that they can do it on their own.'

I just have to increase the pressure on India now. If I let it run along just like that, I would not do the Indians a favour. We need sustainability in our projects. The external project leader is necessary. He will teach the Indian colleagues how to manage projects of such size. He is costing me a hell of a lot of money, though." (Quo-
Quote 6 shows elements of both a finite story and of ongoing storying. One the one hand, it has an inherent structure but shows immanent contradictions. On the one hand, the external project manager is depicted as being “very experienced” and a true PM professional, on the other hand it is acknowledged that “his behavior is very bad”. It is implied that this created issues with regard to the Indian customer which has resulted in customer interaction being handled by Indian colleagues. Furthermore, the external project manager is opposed by the Indian site, nevertheless, the German production manager sticks to his decision. If densified through the previous lens, quote 6 translates into the following logic from the German production manager’s perspective: The project will fail. I am overall responsible for global production. Therefore, I cannot let the project fail. The external project manager is the only way of not letting the project fail. This is due to the fact that the external project leader is experienced in the technicalities of PM, even though he behaves wrongly.

In such a way, quote 6 shows how the expectation of project failure and the interpretation of current risk and how to manage this risk leads to the building up of narrative logic. The crucial starting point is the perceived incompetency of the Indian project leader, especially with regard to project control and in interaction with the Indian customer. Root causes identified are perceived cultural traits (Indianness) which are interpreted from an etic perspective. In such a way, the Indianness of PM is defined and becomes a project risk. At the same time, it is understood that there is a justification for managing an Indian customer differently. Therefore, the German production manager revises his division of letting the external project manager handle customer interaction. Still, he is not replaced. As the last sentence of quote 6 shows, even the aspect of additional costs is neglected when this external project manager is concerned: In fact, his appointment as an external expert who is being paid hourly on a freelance consulting basis creates a high amount of additional project costs.

When investigating into the reasons why the German production manager sticks to the external project manager nonetheless, one notices a certain degree of desperation from his side: From his perspective, his own organizational status, maybe even his career, is at stake. Furthermore, he is fighting strong negative feelings with regard to this project, resulting in interpretative conflicts (also see quote 1). The final logic is: “If I don’t stick to him, then the project will fail.” As quote 6 shows, this narrative logic serves to integrate conflicting interpretations, namely the fact that the external project manager is not as perfectly qualified as the German production manager might wish for and that he does not reduce but actually causes additional costs.

Yet, as depicted in the story, the external project manager seems to possess those qualities which might be the most German: He is tough, he brings structure to the project et cetera. Yet, at the same time, the German production manager is aware of the need to do it the Indian way and is obviously capable of applying this way himself. Nevertheless, the risk seems too high to actually let such a big project be run the Indian way which is not the way that feels secure to the German production manager.

In summary, this means: When having to make a decision on which PM-style to trust the most, the German production manager goes for the way which to him comes naturally based on his previous experiences and his own societal-cultural background. This interpretation is not based on an objective analysis of facts but on deep cultural sense-making. In such a way, the culturalized interpretation is chosen over a PM-related interpretation.

In comparison to quote 5 which served as an example for an interpretative conflict, quote 6 is a rather finite story. Nevertheless it still shows inherent contradictions which point to a previous
stage where the inherent interpretative conflict was present.

Over the following months, Project X evolved further. The external project manager remained in its role until the end. The project turned out to be successful in terms of quality but not in terms of time and costs. Indian colleagues continued to handle customer interaction until the very end. The German production manager was convinced he had made the right decision (an interpretation which the Indian site opposed). In January 2009, he says:

“When we started with Project X, we made a wrong strategic decision initially [in appointing the Indian project manager]. However, because I became aware of it just in time, I was able to get a very experienced external project manager on board. It is true: Some cost issues which had been caused previously stuck with us until the end of the project X, but overall, it was this decision that brought the project back on track again.” (Quote 7: Finite and retrospective story of culturalized success strategy, German production manager)

As quote 7 shows, this story makes sense in retrospect: It is finite and establishes the reasons for project success. In this story, the production manager has established himself in a positive way: He, in the end, has saved the project. As this finite and retrospective story shows, the culturalized interpretation has prevailed over the PM-related interpretation. This might have been necessary from the production manager’s part to give himself a positive role in the story and to solve a seemingly unbearable interpretative conflict with regard to costs and customer interaction which had built up over months and through divergent stories as told by multiple project team members.

5. Implications

As the given case has shown, technical PM across sites and cultures is complex and requires constant interpretation with regard to its potential future failure / success. Stories and the degree to which these stories make sense at present can help identify crucial points and turns of success / failure sensemaking through stories. We have classified these stories into three steps through which the interpretative cycle evolves. These are presented in the following:

The simplest story is the retrospective success / failure story: Here, success and failure are interpreted after the event has taken place. The German board member’s interpretation of corporate history (quote 2) is an example of such a story. Such a story is characterized by a clear structure (beginning, middle and end) and by distinct characters (e.g. villain and hero). It can be expected that such stories are well-known and are told in similar manners by different individuals (Boje 2008). As this case has shown, individuals might need to construct such a story in order to establish themselves as being in charge or as competent. Quote 7, the production manager’s retrospective story of success, can serve as an example for this need.

Those stories which might precede a turning point in narrative logic are not yet complete. These are messy examples of ongoing success / failure storying. As quotes 1, 3 and 5 by the German production manager and the Indian global project manager show, incomplete stories tend to present divergent interpretations (quote 3) or inherent conflicts (quote 5). They signify interpretative turning points. Therefore, an analysis of ongoing storying can help to identify potential future conflicts or interpretative gaps in PM.

If interpretative conflicts (as visible in ongoing storying) cannot be solved, individuals will try to solve them by establishing narrative logic despite the complexities of factual reality. Quotes 5 and 6 show how the German production manager is seemingly forced to decide for a culturalized interpretation in order to prevent project failure, despite the complexities of project reality.

The reason for this might lie in perceived endangerment and uncertainty: The production manager is responsible yet feels that he cannot foresee or control project success. Furthermore, he is insecure about how his actions will
be interpreted by higher management (quote 1). Therefore, he needs to make sure of a positive project reality. This means: He needs to structure project reality into simplified categories of risk / opportunity or success / failure to make sure that he is still a positive actor in this project’s story. These storytelling categories do not represent true project reality. As quote 5 shows, the production manager is well aware of the fact that the cost issue cannot explained simply with Indian cultural traits (as visible in quote 4). Furthermore, he acknowledges that the Indian customer needs to be dealt with differently and is apparently able to do so himself. In doing so, he actually acknowledges the competency behind the Indian strategy of dealing with the Indian customer in a specific manner which he denies elsewhere.

Nevertheless, in the end, the manager – who is an internationally experienced and high-skilled professional – choses to neglect inherent contradictions and alternative interpretations in order to simplify project reality. We call this step in a culturalized failure story / culturalized success strategy. It consists of two parts: In its first part (quote 6), a culturalized failure story is constructed (Indianness as negative factor in PM), which results in a culturalized success strategy that proposes a solution to the perceived problem (choosing an experienced external project manager). In this third step, inherent contradictions are neglected. The story is culturalized, as it simplifies culture-specific difference and uses them as narrative reasons for failure. Quote 7 shows the final culturalized strategic success story, as told retrospectively. It closes the interpretative loop: Finally, the project makes narrative sense. In summary, all three steps – (1) retrospective success / failure stories, (2) ongoing success / failure storying and (3) culturalized failure story / culturalized success strategy – form a full interpretative cycle.

The intercultural dangers of culturalized failure / success stories are that they do not create new and integrative interpretations. That means that even though Project X came to a moderately successful end, it has not resulted in an integration of all stakeholders’ perspectives on what constitutes good PM. In summary, it has not led to the establishment of trust across sites and to joint interpretations of failure / success in the future. Therefore, it seems likely, that conflicting stories resulting in culturalized interpretations might emerge again when future projects are pursued. Therefore, true inter-cultural project management competency which integrates previously divergent cultural styles has not been developed (see Mahadevan et al. 2011).

To prevent such issues from arising, it is suggested paying particular attention to ongoing success / failure storying in intercultural projects. This is the crucial step which might lead to culturalized interpretations in the future. To meet this goal, technical project managers need to be enabled to tolerate interpretative uncertainty with regard to project failure and success. For human resource development and intercultural training and education this means to offer interpretative coaching and support which goes beyond initial training. Rather than preparing for difference, such an interpretative coaching and support should focus on exchanging interpretations, becoming aware of own interpretations and suggesting alternative viewpoints.

The strength of the storytelling approach for doing so is that stories are known since childhood and evoke positive associations. Their fictitious character makes them less endangering than perceived PM facts. By training project management and staff to actually pay attention to the stories told or to comment upon each other’s stories, alternative PM styles might become visible and valuable.

It is to be expected that project stories are linked to the characteristics of a specific project. In the given case, the PM-relevant characteristics of Project X are: (1) It is highly time-critical, (2) its outcomes have to meet high quality standards, (3) the project takes place across distance and time; communication involves technology; (4) it is managed and implemented by different
corporate sites and organizational units. If these aspects are perceived as conflicting or as well-integrated within the project, failure / success stories are likely to include these themes. Hence, all stakeholders should start their narrative enquiry with these subjects – either to uncover a potential conflict to be managed or to discover a potential resource for integration.

As has been said in the beginning, interpretative narrative analysis intends to approach how people make sense of reality and not reality itself. Nevertheless, it might provide actors in the field with a new perspective on their practice, in this case: how to manage intercultural technical projects the best possible. In the given case of Project X, for example, two PM-related findings based on interpretative narrative analysis seem relevant.

Firstly, it is notable that PM of Project X is always institutionalized within one single person. Yet, in case of projects across distance and time which involve several organizational units, PM theory suggests, for example, a “fractal organizational design” (Walter 2004:217f.). This implies that a project is managed by more than one individual and split up into core and sub-projects which are carried out locally but integrated globally. However, this requires well-functioning channels and tools of communication.

However, and this is the second PM-related implication, communication might need to be improved. In order to do so, all internal project members should be trained in internal and external communication. The latter involves constant dialogue with external stakeholders and is of particular importance for success (Schelle / Ottmann / Pfeiffer 2008:405ff.). Furthermore, it has to be analyzed whether communication technology meets project requirements.

For improving both conditions – project management design and communication – narrative analysis, interpretative coaching and support, and PM need to collaborate long-term. Only then can it be assessed whether a PM-related or a culture-based interpretation might be justified. For reaching this assessment, multiple views need to be exchanged.

6. Summary and conclusion

This article has shown that narrative sensemaking with regard to PM is a crucial factor of how future project success / failure is interpreted. Based on a long-term interpretative study of Project X at TechCorp, we have identified three steps of narrative sensemaking with regard to project success / failure: (1) retrospective failure stories; (2) ongoing failure storying; (3) culturalized failure stories / culturalized strategic success story. They serve the need to establish the narrative logic of a seemingly contradicting, messy and conflicting PM reality. When ongoing success / failure storying cannot solve these conflicts, then culturalized failure stories will be constructed that legitimize a culturalized strategic success story. Quotes 1 to 7 have provided examples, showing that PM reality is not a factual given but lies in the eyes of the beholder and might be influenced by his / her strategic interests and his / her degree of endangerment, security, uncertainty, fear, anger etcetera.

The danger of culturalized failure stories is that they provide seemingly logical interpretations which fall short of integrating all project stakeholders beyond initial differences. In short: They do not achieve the goal of managing time, cost and performance / quality through intercultural PM. Rather, they strengthen dichotomist categories of difference which are then likely to impact any future project.

The storytelling approach to ongoing PM success / failure might prevent these dichotomist interpretations to become prominent. For in any given project, individuals will try to make narrative sense of project-related aspects which do not yet make sense. Whenever this phenomenon is encountered, special attention should be paid to it.
Based on these interpretative narrative findings, PM-related areas of improvement might be identified. In the given case, project management design and communication have been mentioned. Furthermore, the narrative approach might enable the project stakeholders to exchange interpretations and to become aware of own sensemaking processes. As a mode of analysis, stories have the advantage of being perceived as less personal and as evoking positive associations. Therefore, they might seem less endangering than actual PM facts which project managers are trained to perceive in dichotomist categories of risk / opportunity or success / failure.

If project management and staff are trained to pay attention to the stories told or to comment upon each other’s stories, different and presumably incompetent PM styles might lose their threatening potential. This might facilitate interpretations beyond previous dichotomies. In summary, both perspectives – the interpretative storytelling approach and a (technical) PM-perspective – are needed to assess and differentiate between cultural and PM-related issues in intercultural project work. A collaborative approach which integrates interculturalists, human resource professionals and those involved in intercultural technical projects, seems the most feasible approach for developing these skills. Further research needs to investigate how such training, education and development tools might be conceptualized and be integrated into the daily practice of technical PM.

7. References


