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CULTURAL CONFLICTS AND KNOWLEDGE SHARING: AN EXPLORATORY ANALYSIS OF SINO-AUSTRIAN PROJECTS

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Complete Research

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Abstract

This paper provides an exploratory analysis of cultural conflicts that potentially hinder knowledge sharing in the context of cross-national and knowledge-intensive projects including Austrian and Chinese project members. We firstly give an overview of central cultural concepts from a national viewpoint, highlight typical conflicts in projects, and discuss key factors that stimulate knowledge sharing. Next, we provide results gained from a series of interviews with practitioners and academics, and an exploratory workshop on global knowledge sharing held in Hong Kong. From the qualitative analysis, we posit six central cultural conflicts that emerged over task responsibilities, attitudes, work execution, power, communication, and time-orientation. We consequently classify these conflicts, discuss their causal placements within Hofstede's cultural dimensions and suggest implications for knowledge sharing. Our research findings provide more groundwork for better understanding cultural conflicts and implications for knowledge sharing in the context of Sino-Austrian projects.

Keywords: Knowledge Sharing, Qualitative Study, National Culture, Conflicts, Project Management, China, Austria, Cross-cultural case study.

1 Introduction

The ability to effectively share knowledge is considered as a strategic capability to create and sustain competitive advantage (Argote and Ingram, 2000; Dyer and Nobeoka, 2002; Nonaka, 1991). However, when organizations, project groups, or individuals operate in global environments, they face many challenges that make knowledge sharing often inefficient (Ruuska and Vartiainen, 2005). Cultural differences have been recognized to create significant implications that impede cross-border knowledge sharing (Canestrino, 2004; Mcdermott and O'dell, 2001). These implications can generate conflicts and affect trust, which are considered central for knowledge sharing (De Long and Fahey, 2000; Pantelia and Sockalingam, 2004). It is imperative to identify and understand conflicts created as a result of these cultural differences in order to raise empathy on the rationale of knowledge sharing.

Sharing knowledge in global projects creates many benefits. Fluently processing knowledge enables project members to learn techniques, cooperate and create core competencies (Liao et al., 2010). A noticeable affinity exists between knowledge sharing and solving practical business problems (Mcdermott and O'dell, 2001). By sharing knowledge efficiently project teams stimulate the creation of new ideas, increase their capabilities to innovate and meet customer demand (Grillitsch et al., 2007). As knowledge sharing impacts global projects in many dimensions, the effectiveness of knowledge sharing is not easy to determine (Argote and Ingram, 2000; Simonin, 1999).

The role of knowledge sharing in projects operating in a global environment has attracted substantial attention. Research studies have outlined factors that impede knowledge sharing in global projects (e.g. McDermott and O'Dell (2001)), and have offered theoretical insights to manage knowledge in global settings (e.g. Pawlowski and Bick (2012), Grillitsch et al., (2007)). Culture, defined as the collective programming of the mind which distinguishes the members of one group of people from another (Hofstede, 1993), has been identified as the biggest barrier to knowledge management (KM), and in particular to knowledge sharing (Leidner et al., 2006; Ruggles, 1998; Watson, 1998). Moreover culture is considered to obtrude upon KM initiatives; therefore KM approaches should fit into culture and not vice versa (Mcdermott and O'dell, 2001). While these studies partially and independently attempt to explain a range of KM factors, the relationship between cultural conflicts and knowledge sharing in particular in a global environment has received relatively less attention.

The aim of this study is to identify cultural conflicts of knowledge sharing in cross-national and knowledge-intensive projects between Austria and China. We define cross-national projects as temporary endeavors of organizations, groups, individuals from different nationalities that come together to achieve a particular aim or a desired outcome (Maylor, 2005). For instance, the aim can be (i) to create a unique product, service or result, (ii) to explore a business and/or a market opportunity, or (iii) to achieve an objective conforming to specific requirements. We focused on projects that constitute of knowledge-intensive activities, which included sectors such as consulting, engineering, business, architecture and public relation. More specifically, for these projects we seek to understand which conflicts exist that negatively impact knowledge sharing between participants working in Austrian and Chinese projects and how these conflicts can be explained with cultural differences. This, we believe, should also expose how cultural values influence the meaning that members attribute to knowledge sharing.

We follow an interpretive research method approach to recognize contemporary knowledge and gain in-depth understanding of our targeted issues. In order to obtain multiple perspectives and capture as much as possible from the complexity of the research problem we opted for a qualitative path and adopted an open-ended data collection strategy, which also avoids that observations are restricted to certain pre-existing categories (Timulak, 2005). We applied a set of analytic techniques that unfold in the methodology of grounded theory (Corbin and Strauss, 2008). We also made use of the software NVIVO to support our systematic and qualitative data analysis.

The next section will describe the theoretical background comprising national culture frameworks, project conflicts and knowledge sharing. This is followed by the research model and the research methodology. Next the observed cultural conflicts are presented. We then discuss these conflicts against the background of Hofstede's ideology, reflect on their implications for knowledge sharing, and acknowledge limitations. The last section concludes the article.

2 Theoretical Background

In the following review we begin with shortly describing Hofstede's national culture framework. We then highlight the different types of conflicts and their influences on knowledge sharing and other project capabilities.

2.1 National cultures

Research on national cultures provided a number of various conceptualizations (Hofstede, 1991; Schwartz, 1999; House et al., 2004) and definitions (Kroeber and Kluckhohn, 1952; Eliot, 1949). For framing the ground of how national culture associates with the identified conflicts, this research selected the widely used Hofstede's five national culture dimensions shown in Table 1.

Cultural Dimension	Definition
1 Power distance	The extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.
2 Individualism/ collectivism	The relationship between the individual and the group.
3 Masculinity/ femininity	The way people are oriented towards activity: doing and acquiring versus thinking and observing.
4 Uncertainty avoidance	The extent to which members of a culture feel threatened by uncertain or unknown situations and try to avoid such situations.
5 Long-term orientation(LTO)/ short-term orientation(STO)	The way people value the future: being comfortable for sacrificing now for long term benefit or more focused on immediate results.

Table 1. National Culture Dimensions (Hofstede et al., 2010)

In general, these cultural dimensions have been widely recognized to be important for knowledge sharing. For instance, it has been noted that differences in cultural patterns (such as individualism/collectivism) moderate the effectiveness of knowledge transfer (Bhagat et al., 2002). Also behavioral characteristics of knowledge management, like ownership and maintenance of knowledge, or reusing and sharing knowledge are considered to be affected largely by individualistic or cooperative natures of culture (Leidner et al., 2006). Further, in global environments both organizational and national cultures are considered to have strong influences on how processes are managed and performed, and how knowledge is shared and communicated (Pawlowski and Bick, 2012). Finally, it has been recognized that culture moderates how individuals distribute knowledge between them and it creates the context of social interaction by staging the rules and practices within which people share knowledge (De Long and Fahey, 2000).

2.2 Project conflicts

By one definition, a conflict is a process in which one party perceives that its interest are being opposed or negatively affected by another party (Wall and Callister, 1995). Researchers have considered the important role of conflicts from various perspectives as outlined below, yet relatively less emphasize was placed on knowledge sharing. In this sub-section, we firstly distinguish between conflict typologies. Then we outline indirectly the correlation of conflicts with knowledge sharing by means of other integral project components, such as group productivity, team performance, and information processing abilities.

In conflict and project management literature, projects dynamically produce mainly three types of conflicts: *task conflicts, relationship conflicts and strategy conflicts. Task conflicts* or substantive conflicts, (or also cognitive conflicts) arise as a result of the differences in viewpoints, ideas and opinions how to perform the task (Simons and Peterson, 2000). *Relationship conflicts* or affective conflicts, (or also social-emotional conflicts) arise as a result of interpersonal differences and incompatibilities between team members and usually include tension, annoyance and animosity (Simons and Peterson, 2000). *Strategy conflicts* arise when project stakeholders have different or incompatible project expectations, whereby project stakeholders are primarily participants that have a stake in project performance (e.g. clients, project managers, designers, subcontractors, suppliers, funding bodies, users and the community at large) (Newcombe, 2003). In general terms, task conflicts could relate to disagreements about resource distribution, policies, processes and procedures, while relationship conflicts could for example arise from disagreements about personal beliefs, ethical principles, political preferences, values and standards (Dreu and Weingart, 2003) leading to frustration (Jehn, 1997). Strategy conflicts could revolve around contrasting long term vs. short-term objectives, cost efficiency vs. quantity, and control vs. independence (Newcombe, 2003).

According to current literature, the effects of conflicts are ambivalent. Different conflicts are linked with positive and negative influences on project outcomes. *Relationship conflicts* are mainly associated with negative consequences. They generate personal tension and negative emotions such as distrust, hostility and anger (Jehn, 1995b), hinder communication and collaboration between team members (Jehn and Bendersky, 2003), decrease team member satisfaction, diminish the liking of other members, lower the intent to remain in the group (Jehn, 1995a; Dreu and Weingart, 2003), reduce the information processing ability, damage group member cognitive functioning (Jehn and Mannix, 1997; Staw et al., 1981), and may also impede team productivity and harm team performance (Dreu and Weingart, 2003; Saavedra, 1993; Woerkom and Engen, 2009). While *task conflicts* have also been connected with lower level of productivity and performance(Jehn, 1995a; Dreu and Weingart, 2003), many other studies have argued that task conflicts can impact team performance positively. Moderated adequately, task conflicts stimulate learning and innovation (De Dreu and Weingart, 2003), increase the levels of technology acceptance after implementation (Bernroider, 2013), and support better decision making (Simons, 2000). It was suggested that task conflicts push individuals to think deeper, be more creative and look at new things that were not visible before. Diversity in attitudes and ideas favor learning (Fiol, 1994; Offenbeek, 2001), therefore produce a higher collective level of knowledge and capabilities. *Strategy conflicts* (largely dependent on stakeholder's attitudes and motives) influence the direction and decisions for a project (Newcombe, 2003). They may involve threats and mutual damage (Schelling, 1990). It has also been argued that strategy conflicts can negatively impact project effectiveness especially when partners have unclear project objectives, insufficient resources and shift goals. A coordinated partnership, however, with a clear mutual and stable strategy should increase involvement and communication, and produce accurate project outcomes (Jiang, 2006).

It is pertinent to emphasize that information processing (or the extent to which team members exchange information) determines how team members share knowledge (Woerkom and Engen, 2009). As discussed above, conflicts may negatively impact information processing, hence knowledge

sharing. On this subject research distinguishes between two contrasting forms evoked from the way conflict is dealt with. Poorly managed conflicts harm relationships, impede cognitive learning, and lead to lower level of trust which ultimately damage knowledge sharing. On the contrary, well managed conflicts not leading to harmful escalations at late project stages (Besson and Rowe, 2001) facilitate the development of trust, strengthen relationships, stimulate challenge and learning, ultimately create an environment for effective knowledge sharing (Pantelia and Sockalingam, 2004).

2.3 Factors that stimulate knowledge sharing

Previous studies have identified a series of factors that stimulate knowledge sharing. Scholars have used different terminology to address these factors, such as antecedents, enablers, facilitators, or motivators. While a full list of factors is beyond the scope of this paper, considering a social perspective we concentrate on the essential factors that stimulate knowledge sharing between individuals, groups and organizations that operate across countries.

One frequent factor that is discussed in the literature is *leadership*, or the process of influencing others to understand and agree about what needs to be done and how to do it (Magnier-Watanabe et al., 2011). Knowledge sharing is promoted for example by leadership that is *people-oriented* (rather than achievement-oriented) (Stogdilla et al., 1962), provides vision and guidance (Li and Lin, 2006), has both broad and deep knowledge to respond creatively to problems and new situations (*T-shaped skills)* (Choi et al., 2008; Soon, 2011), creates a *decentralized hierarchy and authority* (Cardinal, 2001), supports participative and *inclusive team designs* (Bernroider and Koch, 2001; Bernroider, 2013), and fosters employee's *autonomy (*also referred to as *"empowerment"* or *"self-direction")* (Janz and Prasarnphanich, 2003).

Equally important for catalyzing knowledge sharing are *rewards*, classified in two types. *Intrinsic rewards* is self-motivation due to accomplishment of own needs and goals with satisfaction in the content of the activity itself. *Extrinsic rewards* is motivation through external stimuli (e.g. monetary or administrative compensations) with satisfaction independently of the activity itself (Ko et al., 2005). Having s*imilar visions, systems and working styles* facilitates the conditions for knowledge sharing. When parties have complying objectives and similarity in organizational structures and practices (Wijk et al., 2008), and embrace a communitarian *working style* that sets the interest of the group ahead of the self-interest (Magnier-Watanabe et al., 2011), then mutual understanding, harmonious collaboration and knowledge sharing is developed. Not less important is also to have the *courage* to express ideas, *without fearing* criticism (Ardichvili et al., 2003; Lilleoere and Hansen, 2010).

Another important factor recognized in the literature is *care*. When people are *committed to their organization* (Hooff and Weenen, 2004) and have a *sense of belonging* and care for their professional community (Ardichvili et al., 2003) and foster their relationships with their co-workers through care (Lee and Choi, 2003), they are more willing to share knowledge. Further factors such as *tie strength*, *personal closeness* and *physical proximity* also nourish knowledge sharing. Ongoing and cooperative relationships create stronger ties and increase *trust* in partners, which is considered essential for knowledge sharing (Lin, 2007; Levin et al., 2002). The usage of *Web 2.0 technologies* cultivates these relationships and fosters collaboration (Limaj and Bernroider, 2013). Further, *informal networks* and settings that foster personal closeness (such as coffee breaks), and increase physical proximity (e.g. by using job rotation practices) support knowledge sharing (Lilleoere and Hansen, 2010). Ultimately it was suggested to nurture trust among people in such networks to foster knowledge creation and sharing (Abrams et al., 2003).

3 Research Approach

Our qualitative approach to tackle the research questions resulted in the model presented in Figure 1. Our model comprises a three-step main process. The first step, namely data collection, consists of three stages: pilot study, interviews and workshop. The second step, namely qualitative analysis, consists also of three stages: examine data, identify conflicts and group conflicts. In order to systematically process the qualitative analysis, we used NVIVO as supporting software for storing, coding and analyzing the data. More explanation about each step follows below.

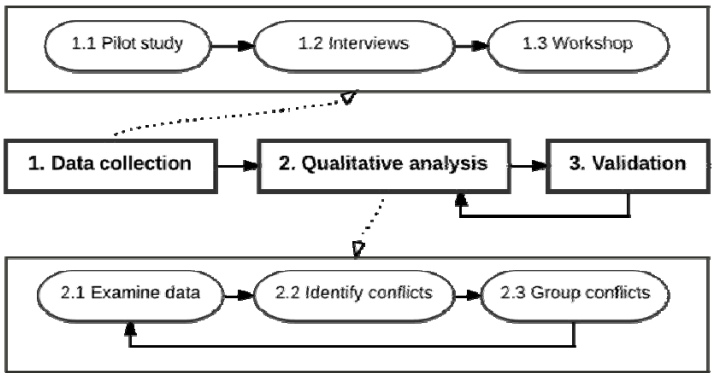

Figure 1. Illustration of the research model

3.1 Data collection

We followed a triangulation strategy in order to increase validity by gathering rich data from multiple sources (Mathison, 1988). First we conducted a pilot study targeting a selected list of Austrian subsidiaries in China provided by the Austrian Chamber of Commerce to screen possible problems in projects and generate interest for our second qualitative stage. This list was selected focusing on knowledge-intensive firms, whose workers engage in cross-national projects that involve members from different nationalities. In order to increase our understanding to achieve an overview as complete as possible, we considered important to examine projects from different contexts (see Table 2) and deal with participants with different roles (see Table 3). Consequently, we were able to conduct several interviews and run an academic workshop in Hong Kong. The aim of the interviews and workshop was to identify and discuss potential cultural conflicts with participants. The interviews were semi-structured with an open-ended question format and they lasted about 1h 30 min each. An overview of the primary data sources is presented in Tables 2 and 3. The last columns of Table 2 and 3 present the interviewee/participant perspectives related to the individuals' nationalities. All interviewees and participants, however, were involved in the investigated Austrian-Chinese knowledge-intensive projects and therefore are likewise relevant.

No.	Position of interviewee	Mode; location of interview; interview language (English; German)	Project Context	Interviewee perspective
1	Senior Principal Architect	video conferencing; Austria; English	Construction	Austrian
2	CEO	face to face; Hong Kong; English	Textile	Chinese
3	Managing Director	face to face; Hong Kong; English	Mechanical engineering	Chinese
4	Managing Director	face to face; Austria; German	Governmental	Austrian

Table 2. List of interviews.

Sector Type	Organization Type	No. of participants	Roles of participants	Participant perspective
Public Sector	Government	2	Director Commissioner	Austrian (1) Austrian (1)
	University	8	Professor (3) Researcher (5)	Austrian (1), Chinese (2) Austrian (1), Chinese (2), other (2)
	NGO	3	Director Legal Counsel	Chinese (1), other (1) other (1)
Private Sector	Consulting	5	Interim Manager Principal (2) IT Consultant (2)	Austrian (1) Austrian (1), other (1) Austrian (2)
	Commercial Company	6	Regional Manager (4) Shareholder Executive Assistant	Chinese (3), other (1) Chinese (1) Chinese (1)
	Sole Trader	1	Business Owner	Chinese (1)

Table 3. Hong Kong workshop composition.

As secondary data sources we were able to process various reports, studies, and summaries from the Austrian Economic Chambers in China and the Vienna Representative Office-PR China. Furthermore, a dissertation (Steiger, 2012) based on a survey of Austrian companies operating in the Chinese market was also considered as further evidence. Considering different project contexts and different roles of participants was essential as it enriched data collection with different experiences and evidence from various angles. This enabled us to draw comparisons and support analysis as described in the following section.

3.2 Qualitative analysis

Qualitative analysis is defined as "*the process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge*" (Corbin and Strauss, 2008). In order to trigger the inductive analytic process, we purposefully applied the following thinking devices: the

use of questioning, making comparisons, thinking about the various meanings of a word and looking at language (Corbin and Strauss, 2008).

Our analysis started with open coding, from which we produced our first line of conflicts that roughly represented our data (Strauss, 1987). Further we used axial coding, from which we grouped conflicts that looked similar under the same category. When conflict categories surrounding the core phenomenon of knowledge sharing were notably determined, we used selective coding to systematically achieve integration. Ongoing comparisons of the conflicts against data were used to map relationships. We repeated the process and modified the conflict categories until the outcome was conceptually pleasing, made sense and represented the data accurately. An overview of the coding scheme with conflict categories, their sub-categories and total number of instances is presented in Appendix A.

3.3 Validation

Our approach to validation was not the same that researchers use in a quantitative perspective. Namely, instead of proving for accuracy of hypotheses we continually reviewed and corrected misconceptions or misunderstandings of data interpretation. After writing the storyline we engaged in refining the outcome using a three step approach (Corbin and Strauss, 2008), namely (i) reviewing the storyline for internal consistency and for gaps in logic, (ii) filling in poorly developed conflicts and (iii) validating the outcome, until we reached a mutual agreement. Finally we sent our analysis to some of the participants that were involved in the study and asked for their opinions upon how well the storyline seems to fit their case. They comments were taken into consideration and integrated in the analysis.

4 Observed Cultural Conflicts

Through our analysis we report six cultural based conflicts related to knowledge sharing in cross-national projects linking Austria and China. These conflicts are presented in Figure 2 and related to the respective conflict type. We now shortly describe these conflicts and cite central statements from the field to illustrate their understanding.

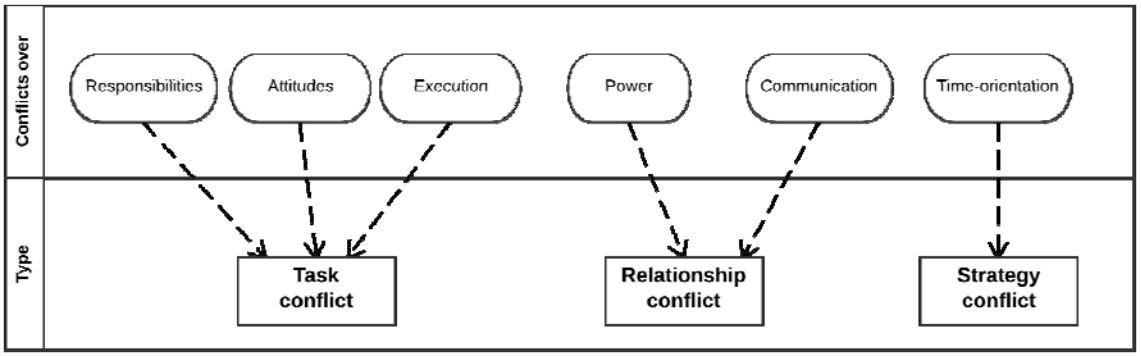

Figure 2. Identified conflicts and associations to conflict types.

Responsibilities (task conflicts): These conflicts relate to changing task organization and responsibilities over the project duration, and can be explained by how authority was exercised in joint projects. Referring to our data, as projects evolved initially agreed tasks and responsibilities were changed when the Chinese contractor was the financial project sponsor, which led to task related

conflicts among project members. This observation is linked with the hierarchical structure of the Chinese culture, where a firm is usually under tight control of top management (Redding and Wong, 1986). One interviewee noted:

> *"In the beginning the local client appointed us project leaders but as the project evolved our leader power was reduced directing us more and more to project consulting. In western culture we have a very close relation with our client. We openly exchange opinions in order to produce the right result for the client. In China this is different: the client has the money and he is the boss. You have to obey his orders or he is going to kick you out of the project." (Interviewee No.3)*

Attitudes (task conflicts): These types of conflict occur typically between members in the lower middle level of project hierarchy. Our data indicated contradictions in the dynamics of work generated mainly because Austrian and Chinese parties showed different attitudes towards the intensity and hours of work, and towards trust, which we conceptualized as an affective attitude reflecting the ways of one person seeing the other (Jones, 1996). The following is a statement of a Chinese participant who engaged in a joint venture between an Austrian and Chinese company:

> *"…the working pressure was higher than in our former Chinese company. They increased the tempo and created a rapid paced work environment. However, this was compensated by the higher salary." (Workshop)*

Execution (task conflicts): Austrian and Chinese parties showed different characteristics in the way they engage in and deliver tasks in a project. Our data showed that Chinese members acted very effectively and accurately to produce the demanded results when they received specific instructions and guidance. Austrian parties, however, emphasized the importance of having everything under control anytime and everywhere. They were generally subcontracted for their ability to lead, control and self-direct tasks. These differences can be noticed in the following statements:

> *"They do it often differently to western engineers, not so efficiently, not so qualitatively … the Chinese working way is that nobody has the entire overview of the project." (Interviewee No.1)*

> *"The Chinese employees are very good at producing the right results given very clear instructions." (Interviewee No.4)*

Power[1] (relationship conflicts): These conflicts relate to the initial and on-going power struggles between Austrian and Chinese project members. According to our findings, the Austrian and the Chinese team members expected and engaged in a constant competition among each other. This is also linked with the Chinese norms of out-group relations, in which instrumental ties (towards strangers, that are not family members) prevail and people maintain a distanced posture to one another (Bond and Smith, 1996). The constant struggle is clearly visible from this statement.

> *"We cooperate with the locals in different directions. Sometimes they are our sub-contractors. Sometimes we work directly for the client. Sometimes we provide only consulting services. Independently from the kind of partnership, the cooperation starts from the first day with a 'war'. Everyone wants to position himself better on the project..." (Interviewee No.1)*

Communication (relationship conflicts): This issue typically related to Chinese subordinates who hesitated to express their disagreement with superiors or to voice unclear instructions or messages. Interviewees associated these behaviors with the concept of 'losing face', i.e., the fear to get a bad reputation, which is one component of the critical Chinese 'Guanxi' concept. Chinese seek to develop

[1] Not to be confused with Hofstede's dimension of power distance

and maintain reciprocal ties throughout their working lives (Lee and Dawes, 2005). This did not apply to their Austrian associates who sought to more openly discuss opinions.

> *"Once Chinese employees are uncertain about something, they stand still. You know why? It's because they have fear to make mistakes because then they lose face." (Interviewee No.4)*

Time-orientation (strategy conflicts): These conflicts emerged due to project member's different goal orientations. Our data substantially supported that Austrian partners generally opted for a long-term perspective when collaborating with partners from China. On the contrary, Chinese members were more inclined to think and opt for a short-term approach to partnership building, which one workshop participant explained as follows:

> *"I think a big difference between western and Chinese cooperation is that the Chinese prefer to think in the short term. They try to make the current business successful and that's it. They think of a partnership for max 2 or 3 years. In western culture we start cooperating aiming to intensify the collaboration in the future and to make good profit after 4 or 5 years. Western people think in long term, 5 to 10 years. Chinese partners rely only in one project and try to maximize profit from it." (Workshop)*

5 Discussion of Cultural Conflicts

In this section we firstly discuss the identified cultural conflicts against the background of Hofstede's cultural dimensions (Hofstede, 2014) as shown in Figure 3. Secondly, we reflect on implications that these conflicts have for knowledge sharing.

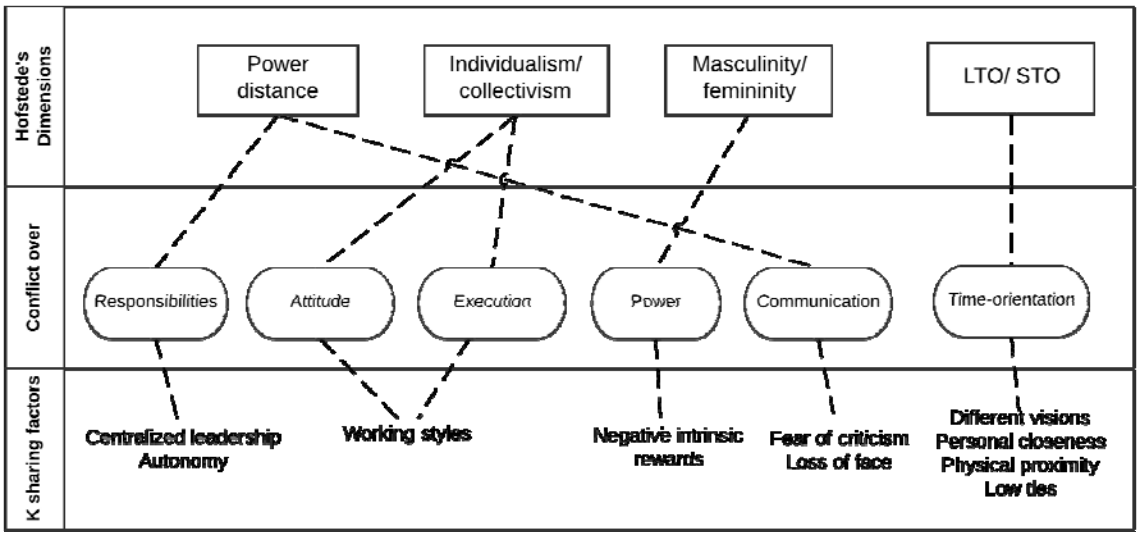

Figure 3. Conflicts, associations with Hofstede's dimensions and knowledge sharing factors.

5.1 Conflicts in relation to Hofstede's cultural dimensions

The Hofstede dimension of power distance can be associated with our identified conflicts over responsibilities and communication. The significant scoring difference (Austria score of 11 points, China score of 80 points) shows that the two societies have almost opposing characteristics (when it comes to this value). While in Austria power is decentralized and relationships between subordinates and superiors are both informal and reliable, and *"communication is direct and participative"*

(Interviewee No.1), in China relationships are polarized, power is concentrated in the hand of superiors and there is no resistance against power abuse (Hofstede et al., 2010).

The Hofstede dimension of individualism can be associated with our identified task conflicts over attitudes and execution. Hofstede's model distinguishes between Austria's individualistic culture (score of 55 points) and China's highly collectivistic culture (score of 20 points). In Austria people live in order to work. Austrian managers are expected to excel and are performance driven, and manage individuals rather than groups. Communication has a low-context, meaning that communication through people is more explicit and non-personal. Relating to China, employees identify less with their work or their organizations. Generally it is suggested that they have colder relationships with other members. Management in China is interpreted as a management of groups. Communication has a high-context, meaning that people share information through simple messages with deep meaning (Kim et al., 1998).

The Hofstede dimension of masculinity can be associated with our identified conflicts over power. These conflicts can be explained by the nature of both countries being mainly "oriented toward activity" – a term coined in Kluckholm and Strodtbeck's values orientation theory (Kluckhohn and Strodtbeck, 1961). This means that these societies are characterized by doing and acquiring rather than thinking and observing. Hofstede's study shows that people from both countries (Austria score of 79 points, China score of 66 points) are highly competitive. Their endeavor is to achieve things at all costs. Being powerful means not only being successful and having privileges but also being a person who is always right.

The Hofstede dimension of long-term vs. short-term orientation in life seems to be related with our identified conflicts over time orientation. Although in Hofstede's study China is considered in general to be a high-LTO country (score of 87 points), several examples from our data associate typical STO-characteristics (Hofstede et al., 2010) with China, such as concerns about "face", traditions and quick profits. Austria, on the other hand, is suggest to be a LTO country in Hofstede's study (score of 60 points). This is also reflected in our data, for example, by committing to long term investments and profits, developing market positions, maintaining perseverance and making well calculated decisions.

5.2 Conflicts and implication for knowledge sharing

Task conflicts which arise as a result of the differences in viewpoints, ideas and opinions on how to perform the task (Simons and Peterson, 2000) in our context related to responsibilities, attitudes and task execution. The appeared conflicts over responsibilities due to the *leadership of superiors* restricted subordinates in expressing their opinions as superiors displayed a *centralized, non-people-oriented* management approach. Further, conflicts over attitudes and task execution showed especially *differences in working styles*. We argue that these conflicts potentially leads to (i) a type of *leadership* that blocks knowledge sharing as subordinates are hindered to act *autonomously* and (ii) unfavorable knowledge sharing conditions due to differences in the way of working. These implications are supported by prior research that has shown that empowering leadership is positively related with knowledge sharing (Srivastava et al., 2006), and that moving down the hierarchy and leading by participative decision making (Bernroider and Koch, 2001) encourages subordinates to share their ideas (Locke et al., 1997).

Relationship conflicts which arise as a result of interpersonal differences and incompatibilities between team members (Simons and Peterson, 2000) in our context related to power and communication. Conflicts over power showed especially that members had *negative intrinsic incentives* which resulted in information hoarding. Members want to avoid that others achieve better results by profiting at their expenses. These negative intrinsic incentives created due to the unhealthy competition among members can also be explained with the potential prisoner's dilemma of knowledge: the more valued it becomes, the less people share it, at the risk of losing the competitive

advantage of what they know (Cabrera and Cabrera, 2002). Conflicts over communication blocked Chinese employees to express themselves as they tried to avoid *being wrong or making mistakes*. Avoiding to share knowledge due to the fear of losing face (e.g. because the information might not be accurate and could mislead others) has also been recognized in previous studies (Ardichvili et al., 2003).

Strategy conflicts which arise as a result of different or incompatible project expectations (Newcombe, 2003) are in our context mostly related to time orientation. Conflicts over different goal orientations demonstrated a *low level of personal closeness* between partners and especially identified *different visions*. Participants reported that after the initial involvement in the project, there are only slightly chances for maintaining further cooperation. They gradually *decrease interactions* and create *low ties*, showing little or no willingness to develop further areas of collaboration, which ultimately results in low levels of knowledge sharing. Earlier research recognized that sharing similar visions is fundamental for creating a sustainable mutual knowledge sharing strategy (Wijk et al., 2008).

5.3 Limitations

As data collection and analysis was limited to Austrian team members, the article may have introduced an unintentional bias towards the Austrian viewpoint. However, measures were taken to balance the research effort. The number of the participants in the study was equally balanced between China and Austria, and third-party opinions (participants from other countries) were taken into consideration. Most importantly, in order to discuss and resolve biased views the majority of the fieldwork was done in China and Hong Kong. Additionally, the results were forwarded to Chinese participants to validate the research findings.

Contradictory deliberations on the Chinese culture have emerged in previous studies. It was considered as largely homogenous (Jiao, 2001), where people widely share common values and beliefs, and also largely heterogeneous (Lin and Wang, 2010), where social groups from different geographical regions within the same country expose diverse values and beliefs. We acknowledge that China displays various cultural manifestations and that the beliefs and ideas presented in this study are limited to the observed cases.

6 Conclusion and Outlook

Far from giving any pre-set and universal definition of cultural conflicts, this research identified the heterogeneous ways in which members that took part in a small sample of knowledge-intensive Sino-Austrian projects conceived tasks, relationships and strategies. This allowed us to see the different worlds in which these cultures operated projects and suggest implications for the important area of cross-cultural knowledge sharing.

Based on our qualitative analysis, we registered six cultural conflicts over task responsibilities, attitudes, work execution, power, communication, and time-orientation, and their association with general conflict types. Moreover, we offer a discussion of these conflicts by means of Hofstede's national cultural dimensions, and a reflection on their potential negative effects on factors that were suggested to generally promote knowledge sharing in projects and organizations.

Acknowledging the limitations of the study and our small data sample, it remains interesting to see if these results can be extended, refined or validated in future studies in particular through work conducted by a Chinese research team. Evidently more research is needed to develop more effective leadership and management approaches to resolve the reported and further cultural conflicts for the benefit of the entire team including all international project members.

7 Appendix A. Coding Scheme

Codes: main categories	Short description	Codes: sub-categories	Short description	Total instances
Res	Responsibility	ActC	Activity control	10
		Resp	Project organization	
Att	Attitude	Trans	Transparency	21
		Trust	Behavior towards trust	
		EdBa	Educational background	
Exe	Execution	WorPr	Work practices	31
		QuaSep	Quality separation	
		Infr	Infrastructure	
		ProSta	Project stages of conflict	
		ExDif	Expertise differences	
		TerDif	Terminology differences	
Pow	Power	DecM	Decision making	22
		Comp	Competitiveness	
Comm	Communication	SubSup	Subordinates vs. superiors	26
		Email	Email usage	
		IT	IT usage	
		Lang	Language	
		PersStr	Personalization strategy	
		ConfrIs	Confronting issues	
		TimeZ	Time zones	
TimeOri	Time-orientation	GoAgr	Goal agreement	12

Table 4 Overview of the coding scheme

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