Culture's Consequences for Communication: A Cross-Cultural Examination.

Abstract

Communication is a vital issue for organizations with cross-cultural communication being of growing relevance. While the role of language for functioning communication is widely accepted, the following paper empirically examines the role of culture beyond the language issue. The study intends to fill a research gap by systematically analyzing the process of misunderstanding in cross-cultural communication. Experimentation is employed to assess the impact of culture on communication effectiveness. Two samples with a total of 200 participants were used to simulate (cross-cultural) communication. Data on communication effectiveness was collected via peer- and self-assessment. The effects on communication are analyzed from a sender and a receiver perspective and computed using SPSS. The study provides empirical support for the assumption that cultural elements beyond the language issue affect understanding in cross-cultural communication.#

Keywords:

Culture, communication, cross-cultural communication, transmission, context

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1 Introduction

Communication can be seen as a vital issue for organizations as (functioning) communication contributes significantly to sustainable, long-term success (Barney, 1991; Carmeli & Tishler, 2004; Smidts, Pruyn, & van Riel, 2001). In turn, the results of miscommunication "are needless, usually unproductive, and can cost organizations dearly" (Axley, 1986, p.17). Culture is another "powerful social construct" (Boyacigiller, Kleinberg, Phillips, & Sackmann, 2004, p.99). The prominent role of (national) culture has become increasingly important in the last two decades (Leung, Bhagat, Buchan, Erez, & Gibson, 2005). In consequence, cross-cultural communication as a subsequent phenomenon is an issue of growing relevance, as the number of cross-cultural interactions between individuals within MNCs as well as in foreign business environments increases. The use of a number of different languages and communication styles has risen significantly in the past decades. Yet, communication theory is argued to be just at the dawn of responding to the global imperative (Monge, 1998). Various aspects of culture eventually cause members of different cultures to "see, interpret, and evaluate things differently, and consequently act upon them differently" (N. J. Adler, 2003, p.250). In consequence, functioning cross-cultural communication can be seen as a challenge and a critical factor for international business activities.

The previous paragraph has highlighted the importance of functioning communication within and particularly across different national (cultural) environments. This paper addresses two significant problems. The first problem to be addressed is of practical significance: When conducting business across national (cultural) borders, individuals are likely to communicate with members of different cultures – with language only being one (major) element in the communication process. In consequence, misunderstandings are even more likely to occur

across cultures than in domestic scenarios. The second problem to be addressed is of theoretical significance: Whereas theory provides a number of concepts to describe specific characteristics of culture (even focusing on the phenomenon of communication, Hall, 1959, 1976), there seems to be a lack of accepted conceptualizations which systematically approach communication between (individuals from) different cultures thereby presenting ways to identify and reduce misunderstandings.

The main purpose of this paper is to empirically analyze the phenomenon of misunderstanding in cross-cultural communication (or miscommunications in the notion of Triandis, 2000) and – in turn – explores detrimental impacts on communication effectiveness. Assessing communication for effectiveness can be justified as it seems to be of interest to the academic field in business and management, as well as in the field of communication. For instance, the majority of contemporary competence literature has focused on appropriateness and effectiveness as core criteria (Spitzberg, 2003, p. 97). The authors also go beyond the assumption that language is the (only) prerequisite of understanding. While languages unarguably play an important role for functioning cross-cultural understanding, this paper also argues for the existence of additional components of culture that might interfere with communication processes across (cultural) borders. The study intends to fill a research gap by systematically analyzing the process of misunderstanding in cross-cultural communication. With reference to Kittler and Rygl (2007) who base their concept of misunderstanding in cross-cultural communication on Hall's (1976) concept of cultural context and Krippendorff's (1986) information theory. The theoretical foundation of this paper is a transmission theory of cross-cultural communication that allows identifying archetypal causes of misunderstanding when individuals communicate across cultural borders. As suggested by Whetten (1989), an experimental design is generated which allows scholars to empirically assess the theory. Experiments are conducted using a student sample. According to Bausell's (1994, p. 58) sugges-

tion, four steps are taken towards the experiment: First, a meaningful outcome variable is selected (understanding in cross-cultural communication). Second, a theoretically promising intervention is identified (culture, language). Third, hypotheses are generated on the relation between the intervention and outcome (the role of culture and language for errors occurring in a communication process). Forth, the hypotheses are evaluated and discussed in the empirical part of the paper.

2 Conceptualization of Culture, Communication and Cross-Cultural Communication

Blake and Mouton (1968) have already suggested that communication problems are a major factor contributing to breakdowns in organizational effectiveness. In their cross-cultural study, a majority of the responding managers mentioned distortions in the communication process "as the single greatest barrier to corporate excellence" (Hill & Baron, 1976, p. 408). While the consequences seem obvious, the antecedents might still demand a more systematic approach to (cross-cultural) communication that also provides a way to empirically access this phenomenon. The transmission theory understanding in cross-cultural communication as proposed by Kittler and Rygl (2007) combines the basic ideas of Hall's (1976) high-context/low-context-concept and Krippendorff's (1986) information theory. These two theoretical foundations and the rationale for their choice will be presented in detail.

2.1 Culture

The works of Hofstede (1980), the GLOBE-project (House, Hanges, Javidan, Dorfman, & Gupta, 2004), Trompenaars (1993), Hall (1976) and Schwartz (1992) are seen as seminal contributions on national cultural variation. Most of these prominent concepts acknowledge the relevance of communication across cultural borders. However, except Hall's work (particularly the elements relating to his idea of context) most conceptualizations of national culture and national cultural differences do not relate culture and communication in the first in-

stance. Hall instead offers a communication-oriented perspective on culture and justifies this focus: “We believed that culture is communication and no communication by humans can be divorced from culture” (Hall, 1992, p. 212). Hall (2000, p. 37) argues that elements of culture “determine everything about the nature of the communication and is the foundation on which all subsequent behavior rests”. Cultures provide their members with different propensities to employ pre-programming or contexting in their everyday communication. This compensates for the relative inaccuracy of language.

Research employing Hall’s ideas of context is predominantly localized in the fields of cross-cultural communication and negotiation (e.g., Kitayama & Ishii, 2002; Knutson, Komolsevin, Chatiketu, & Smith, 2003; Koeszegi, Vetschera, & Kersten, 2004; Okazaki, 2004; Simintiras & Thomas, 1998; Ulijn & St. Amant, 2000) or cross-cultural marketing and sales (e.g., Biswas, Olsen, & Carlet, 1992; Callow & Schiffman, 2002; Larsen, Rosenbloom, & Smith, 2002; Mintu-Wimsatt & Gassenheimer, 2000; Miracle, Chang, & Taylor, 1992; Rosenbloom & Larsen, 2003; Taylor, Franke, & Maynard, 2000). Even critics acknowledge the concept as a doorway to enter the room of cross-cultural understanding (Starosta & Chen, 2003). However, the anthropologist’s view seems rather to focus on how culture affects communication WITHIN (national) cultures but provides no systematical approach on how culture interferes with communication ACROSS different cultures. Therefore, Kittler and Rygl (2007) link Hall’s conceptualization of culture (which again neglects the cultural issue) with a communication theory.

2.2 Communication

As for culture, there is no common object or a common body of theories on communication. Communication, therefore, is considered a highly and increasingly segmented subject (Anderson & Baym, 2004). The “diffuse character” (Donsbach, 2006, p. 443) of the field (or

discipline) can, according to Craig (2006) be related to the fact that despite drawbacks on ancient and intellectual traditions, communication theory has only recently become a distinct field of study. As a consequence of the multidisciplinary origin and the fragmented character of the field (or discipline), Craig (1999, p. 154) suggests that scholars intending "to do original research 'cannot ignore the need to specialize methodologically, and hence theoretically' (Reeves, 1992, p. 238)". Referring to the degree of definitional pluralism, communication can be regarded as analogous to culture. Comparable to Kroeber and Kluckhohn's (1952) seminal work in accumulating definitions of culture, Dance and Larson (1976) identified 126 published definitions. Furthermore, Craig (1999, p. 153) points at "249 theories and still counting" and suggests a typology of seven traditions in communication research: Rhetorical, semiotic, phenomenological, cybernetic, socio-psychological, socio-cultural and critical. As (mis)understanding is a key issue of this paper and errors in communication are intensively addressed by cybernetics, the authors employ a process approach to communication (in the cybernetic tradition). Following the transmission paradigm, communication research studies the process of sending and receiving messages.

The three elements of the communication process (sender, message, and receiver) can be found in one of the earliest recorded models attributed to Aristotle. The ancient Greek philosopher suggested communication as messages transmitted by an orator to a rather large audience. A more sophisticated approach can be attributed to Lasswell (1948) asking "Who - says what - to whom - in which channel -with what effect?" As most popular scholars in the cybernetic tradition, Shannon and Weaver (1949) focused particularly on the transmission and reception of messages. Further elaborations are presented by Schramm (1954) and Berlo (1960). A more recent concept is Krippendorff's (1986) information theory. The rationale for selecting Krippendorff's (1986) approach is particularly based on this distinction between different types of noise in a broader sense, i.e., the distinction in noise adding unrelated varia-

tion to the transmitted information and equivocation subtracting from the senders entropy. Equivocation occurs, when the message sent has two or more equally plausible meanings, i.e. messages which are ambiguous, indirect, contradictory, or evasive (e.g., (R. B. Adler & Rodman, 2003, p. 214; Chovil, 1994, p. 106). Noise relates to the different types of interferences that plague every communication event (McDaniel, Samovar, & Porter, 2005). Considered technically, the term noise refers to anything that distorts the message the source/sender encodes (Jandt, 2003, p. 31). Following Sullivan (1986, p. 5) Krippendorff places information theory "into a framework that most social scientists can readily comprehend and evaluate" and is "particularly successful at making a rather complicated system [..] as simple as possible".

2.3 Cross-cultural communication

In line with the discussion above, Kittler and Rygl (2007) provide a transmission approach to cross-cultural communication. Hall (1976), though presenting a number of observations on cross-cultural interactions, does not systematically approach the communication process when considering different cultural contexts. The information theorist on the other hand is involved with coding, channels, capacity, noise, redundancy, and other statistical properties of language. The information processing approach tends to ignore the cultural context and provides no way of observing that the individual who is processing information is embedded in a highly structured and meaningful constituted environment. "It gives no way of permitting us to see that the individual is the recipient not just of information but also of a meaning." (McCracken, 1987, p. 122)

A prerequisite for cross-cultural communication to take place at all is a shared code, i.e. a common language both speakers are capable of. Most cross-cultural communications involve more than on language and at least one of the communication partners might need to

switch into a second language (L2). However, fluency in L2 is not to be expected (McDaniel, et al., 2005, p. 9), therefore, a possible consequence of second language use is that the communicators' task-related communication skills might be reduced. As in intracultural communication, sharing a common code is a necessary pre-requisite for communication to occur (Sarbaugh, 1988). Consequently, language is seen as an independent or moderating variable in cross-cultural communication. This leads to a first hypothesis

Hypothesis 1: The use of L2 has a negative impact on communication effectiveness

Nevertheless, a common language might not be considered as sufficient for functioning communication to take place (particularly when crossing cultural borders). The combined model (Hall/Krippendorff) focuses on additional interferences due to the specific features of a cross-cultural communication, i.e. cultural context. Combining Hall's (1973; 1976) notion of HC/LC and Krippendorff's (1986) model, two dimensions of errors related to cross-cultural communication can be identified: Cultural loss and cultural noise (see figure 1). It can be argued that cultural loss particularly affects the context-bound information as less context-bound information, i.e. the information part of meaning according to Hall's (1976) notion, requires less (culture-specific) pre-programming than context-bound information. The opposite is contextual noise. Here interference occurs when the receiver adds sender-unintended parts to the message. This alters the sender-intended meaning of the message sent. As a consequence, the communication is altered to the extent of both contextual loss and contextual noise. This leades to hypothesis 2 which assumes an impact of cultural elements other than language.

Hypothesis 2: Interculturality has a negative impact on communication effectiveness

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Insert figure 1 here

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3 Towards a cross-cultural experiment

The systematic theoretical approach presented above provides a theoretical conceptualization that designs a simplified (cross-cultural) communication process. Yet, in order to achieve empirical access, a number of choices has to be made about research design (experimental vs. non-experimental), research setting (e.g., laboratory vs. natural setting) measures (e.g., questionnaires, observations of behavior), and data analysis strategies (Stone-Romero, Weaver, & Glenar, 1995). All decisions have to fit with the research scope. After these three issues are addressed, the experimental design is presented.

3.1 Preliminary decisions

The first question is whether an experimental or non-experimental design is more appropriate in order to empirically access communication in the scope of this paper. The theoretical approach to communication used in this paper provides a transmission perspective on cross-cultural communication with a sender transmitting a message to a (culturally different) receiver interfered with by contextual noise and loss (Kittler & Rygl, 2007). This creates a basic challenge for empirical access in actually being able to identify sender and receiver and a (process of) communication in order to observe the message transmission. Furthermore, the interferences have to be assessed. As Hall (1976) argues, “in real life the code, the context, and the meaning can only be seen as different aspects of a single event. What is unfeasible is to measure one side of the equation and not the others.” In a simulated, non-natural setting, it is easier to assign sender and receiver and observe the message transmission. A second question is to what extent the sender and the receiver(s) should be engaged into the research proc-

ess. The argumentation above also accounts for the need of rather obtrusive methods. Obviously, understanding is hard to be assessed without obtrusiveness in the research design. Following a typology of research methods proposed by Triandis (1983, p. 90) an experimental design uses simulations (as opposed to natural situations) with a very high level of obtrusiveness and therefore seems to be a suitable approach in the scope of this paper. Also Leung et al. (2005) argue from an international business perspective, that experimentation provides a "powerful tool" to approach culture related issues. An experiment can be defined as "a form of experience of natural facts that occurs following deliberate human intervention to produce change; as such it distinguishes itself from the form of experience involving the observation of facts in a natural setting" (Corbetta, 2003, p. 94).

After deciding upon an experimental approach, the next question is, whether the experiment will take place in a rather artificial setting (laboratory) or in a real life setting (field). In a laboratory experiment a more accurate measurement of variables is argued to be possible (Langdridge, 2004). However, the application in the field of social sciences is discussed controversially as removing particles from their natural environment is related to far less feasible in the natural sciences than in the social sciences. Thus, for a variety of methodological, practical and ethical reasons, the use of a fully artificial setting social research is rather limited (de Vaus, 2002, p. 57). Still, DeDreu and Carnevale (2005, p. 198) attest a "heavy reliance on laboratory experiments" for communication research. For instance, research relying on laboratory elements often relates to computer mediated communication (e.g., Ang, Cummings, Straub, & Earley, 1993; Sussman & Sproull, 1999; Tan, Wei, Watson, Clapper, & McLean, 1998; Valacich, Wheeler, Mennecke, & Wachter, 1995; Yoo & Alavi, 2001) and marketing issues (Areni & Sparks, 2005; Raghubir, 2005; Schul & Lamb, 1982). This is reasonable as for instance the laboratory setting for computer- or mass-mediated communications can be assumed to be created closer to a real-life setting than for interpersonal cross-cultural com-

munication. In consequence, the artificial nature of the laboratory was criticized for having the flaw to produce artificial findings (see e.g. Langdridge, 2004, p. 90). As the shortcomings of field settings seems less problematic than the impact of the artificial settings on communication styles, the setting will try to emphasize the field character of the setting. Communication transmissions will take place under randomly assigned conditions in an environment familiar to potential participants.

The decision for an experimental design also has a predetermining effect on the question whether to approach the phenomenon of cross-cultural communication on a quantitative or qualitative level or to use triangulation, i.e. a combination of both approaches (Campbell & Fiske, 1959). Furthermore, according to Beavin-Bavelas et al. (1990) qualitative aspects do not reveal the actual effect of a message. This argumentation at least suggests a quantitative approach for assessing effectiveness in cross-cultural communication.

The next step involves designing a feasible experimental design relating to the considerations above in order to test the hypotheses empirically. According to Beattie and Shovelton (2005, p. 21) the design of effective communications depends upon an accurate and adequate model of the communication process. The theoretical conceptualization discussed above needs a precise implementation in order to prevent or at least reduce design-inherent flaws, particularly confounding variables leading to wrong conclusions or making alternate explanations necessary when interpreting the results. (Schnell, Hill, & Esser, 2005). A real-life setting of cross-cultural communication should reflect common types of cross-cultural business communication such as business negotiations and presentations (e.g. Gibson, 2002). A presentation seems more suitable to model a unidirectional transmission as the character of a presentation can argued to be ‘more’ unidirectional and less interactive than the character of negotiations. Furthermore, a presentation to a small group can be considered to represent a

real-life situation for business students as well as business practitioners. In both cases the understanding of the sender intended meaning by the receiver(s) is a meta-objective that guides the transmission of the messages sent. Feedback in the form of verbal as well as non-verbal cues of the receiver(s) (should) indicate the degree of understanding. The presentation example gives a possibility to clearly identify the (main) sender and the receiver(s). As a result of the conscious on unconscious levels of misunderstandings (Triandis, 2000, p. 146) the data collection can not fully rely on perceptional data on communication. (Quantitative) data can be collected via observation and self-report.

3.2 Experimental design

A unidirectional communication transmission with a clear role distinction appears when a sender A tries to transmit a message (meaning) to receiver B. The sender could for example try to explain a certain term to B. The communication is effective when B recognizes the term, i.e. when the sender's and the receiver's understanding of the term match. When A tries to explain the term to a set of receivers B_1 to B_n with one of the receivers recognizing the term, one effective and n-1 less effective communication transmissions take place. Since the meaning sent was sufficient for one of the receivers, further (cultural) interferences may be assumed in the transmission between the sender and the other receivers. It is possible that less successful receivers have (a) not received enough information and/or (b) have misinterpreted the message received with the cognition of different meaning as discussed int the conceptualization of cross-cultural communication above. In the case of (a) it can be assumed that parts of the message sent where not recognized by the receiver, which indicates the existence of contextual loss. In the case of (b), misinterpretations, i.e. sender-unintended meaning added to the sender's entropy, are the reason for misunderstanding and indicate the existence

of contextual noise. Both errors, the extent of contextual noise and loss can be argued to be a result of cultural differences

In order to launch communication between a sender and a given number of receivers in the form of a series of controllable transmissions the experimental design “Explanatorius!” (Holtbrügge & Kittler, 2007) is used. The main objective for the participants of “Explanatorius!” is to explain randomly selected terms under given restrictions in a game-like situation. The sender tries to transmit the term to the receiver(s) without actually using it and under the manipulated conditions culture and language.

3.3 Variables (Manipulation)

In order to evaluate the hypotheses, the following measures will be used to document the manipulations of the transmission: LANGUAGE measures the language dictated to use for each transmission. In this setting German (1) and English (2) are the two languages employed. The terms were generated in German and translated in English using (see the computerized translation tool Langenscheidt T1 Professional and manually retranslated (Brislin, 1970). Mismatches were discussed and adjusted. English was considered to be an appropriate L2 choice. English – or ‘Englishes” in the notion of Charles and Piekkari (2002) – can be considered a lingua franca of International Business (at least in a Western perspective). This also applies for business students. For instance, 96.5 of German students claim to have English language skills (Bonstein & Theile, 2005): Another indication supporting the ubiquitary character of English in the (international) business world is that the use English is considered a measure of future orientation (House, et al., 2004, p. 157). The corresponding variable NATIVE indicates whether the language used to communicate corresponds to the native language of the participant (native) or is a foreign language to her/him (non-native). The level of the dyad provides 3 possible values: No native communicator, one native communicator, and two na-

tive communicators. Referring to the communicators' nationalities (NATIONAL) and following the argumentation pro national cultural differences, the dichotomous variable CULTURAL can be calculated indicating intracultural communication when both communicators in a dyad are of the same nationality or cross-cultural communication when both communicators are of different nationalities.

As a major dependent variable, effectiveness can be seen as a single and simple outcome by the result of matching (Walther & Parks, 2002). In the case that the sender's effort to communicate did not lead to a match it did not have the intended effect and, therefore, was not effective. Communication effectiveness is measured by a dichotomous item (EFFECT, 0;1), with 1 = effective communication (i.e. the term is guessed by the receivers) and 0 = less-effective communication (the term is not guessed by the receivers). In the case of successful communication (EFFECT=1), the communication did reach its intended goal for at least one receiver who mentioned the explained term first. EFFECT relates to the level of the transmission and is not measured at the level of the single dyads. At the level of the dyad, the variable for the successful or unsuccessful transmission, the variable EFF_DYAD is introduced describing a successful dyad (EFF_DYAD =1). For the other receivers (EFF_DYAD=0), the communication was not or less effective.

4 Samples and Results

The first part of this chapter will present the sampling procedures and general information about the two samples. Subsequently, two samples and the empirical results related to the two samples will be presented.

4.1 Samples

Two student samples were taken despite possible concerns about external validity (Gordon, Slade, & Schmitt, 1986, , 1987; Hartman, Lundberg, & White, 1993; Miranda & Saunders, 2003, p. 101) as the intention is to test for consequences of culture (on communication). Considering the culture as a "historically transmitted pattern" (Geertz, 1973, p. 89) and the long-term character of cultural programming - see e.g., the long period of time needed for cultural adjustment in a foreign environment as presented in the U-curve discussion by Black and Mendenhall (1991) - it is not to expect that culture-specific behavior will differ significantly when analyzed in a different setting. As Mintz, Redd, and Vedlitz (2006, p. 757) conclude, "it is possible that students can be assigned to experiments where they represent the "public" and not elites". As culture can be considered to represent specific characteristics of a group, i.e. is 'public' by definition, the participation of students from different national cultures seems at least less problematic than the use of national cultures per se.

The experimental design was applied in two different samples. Participants were from a wide number of countries In total 200 students were included. Both samples are convenience samples with a majority of German students (A: 78; B: 67). The number of foreign participants (referring to a different-from-domestic nationality, in this case Non-Germans) was 31 in Sample A and 25 in Sample B. Details are presented in table 1

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Insert table 1 here

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4.2 Results

All communications in the two samples described above were randomly manipulated with a computerized random function assigning values to the independent (manipulation) variables. The participants were sorted according to their random value and assigned to different groups (7 participants each with 1 sender simultaneously sending a message to 6 receivers) in order to avoid a bias resulting from prior relationships. Relating to the large sample size of 108 and 92 participants this seems to be a reasonable procedure. Consequently intra- and cross-cultural communications (CULTURE) were generated on a random basis. The experimental procedures generated a large number of cross-cultural communication dyads, particularly between German participants and participants of other nationalities. In Sample A, data on 4323 intracultural and 3112 cross-cultural communications was collected. In sample B, 1665 intracultural and 2857 cross-cultural communications were observed. A further manipulation took place for LANGUAGE with the language (German, English) again being computed using a random function. The two different languages determine whether the communication is native or non-native (NATIVE). Results for the sender perspective are based on 1472 sender initiated communications (741, 731) in sample A and 627 in sample B and show a significant difference between native and non-native for all three rounds ($p=0.001$, see figure 2). In consequence, H1 finds strong support.

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Insert table 2 here

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The communications which were not terminated because of rule violations and allowed the sender to effectively transmit the message to a receiver (EFFECT = 1) totaled 4429 (round 1: n= 2074; round 2: n = 2355) in sample A. Sample B provided a total of 1407 communication

dyads which were not terminated without a successful transmission because of rule violations. These dyads were further assessed for effective dyads (EFF_DYAD = 1) and less effective dyads (EFF_DYAD=0) from a receiver's perspective.

In sample A the German/English design produced 1764 (790; 974) communications in which none of the two communication partners spoke a native language (NATIVE = 0). 974 of the communication dyads involved 1 native speaker (489; 485) and 1691 of the communications involved 2 native speakers (795; 896). The communications in sample B resulted in 599 communications in which none of the two communication partners spoke a native language (NATIVE = 0). 273 of the communication dyads involved 1 native speaker and 535 of the communications involved 2 native speakers (535).

χ^2-tests provide a highly significance for Pearson's χ^2 with p=0.000 for round 1 and p=0.007 for round 2 in sample A and p=0.001 in sample B (see table 3). For both samples the results underpin the assumed impact of language for cross-cultural communication and points at a liability of non-nativeness for individuals urged to communicate beyond a native tongue.

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Insert table 3 here

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In order to compare the results on communication effectiveness without the distracting heterogeneity of the native language/L2 effects only non-native communications are considered in the following evaluation. Therefore, all communicators are confronted with the liability of non-nativeness and the effect of language is reduced. In consequence 1764 non-native dyads are included in the subsequent cross tabulation in table 4 for sample A (790, 974). Sample B provided 599 sender effective dyads. For both rounds in sample A the ratio between less-

effective and effective communication (receiver perspective) differs significantly for inter- and intracultural communications (round 1: p=0.000; round 2: p=0.001). However this result was not confirmed by sample B (p=0.159). Consequently, the study at least partially supports H2 which assumed that cross-cultural communication provides a higher potential for misunderstandings than intracultural communication beyond the language issue. However, this assumption needs additional empirical support.

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Insert table 4 here

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5 Discussion and conclusion

The results largely provide empirical support for both hypotheses and are briefly discussed in the following section. A discussion of limitations and implications for the use of the experimental design as well as the empirical results will conclude the paper.

5.1 Discussion

The experiments presented above reveal significant differences of understanding in cross-cultural communication referring to native and second-language (L2) communication and support H1. The first – admittedly unsurprising- result empirically underpins the common assumption that language issues affect all participants in communications. Consequently a liability of non-nativeness was identified for individuals urged to communicate beyond a native tongue. These differences point at a major challenge companies in an international business world are exposed to. Consequently, the results of this paper give further support to the previous body of literature on language issues in international business (Barner-Rasmussen &

Björkman, 2005; Charles & Marschan-Piekkari, 2002; Feely & Harzing, 2003; Luo & Shenkar, 2006; Marschan-Piekkari, Welch, & Welch, 1999; Piekkari, Vaara, Tienari, & Säntti, 2005; Vaara, Tienari, Piekkari, & Säntti, 2005; D. Welch, Welch, & Piekkari, 2005; D. E. Welch, Welch, & Marschan-Piekkari, 2001; Zander, 2005).

The results for cultural interferences beyond the language issue show that in addition to the major barrier of language other cultural obstacles wait to confront individuals communicating across cultural borders. H2 was partially supported. For instance, the cross tabulation presented in table 4 reveals differences in understanding for receivers in intra- and cross-cultural communication dyads in non-native communication. These findings indicate that (inter)cultural interferences in addition to language exist. The potential for misunderstanding might relate to such concepts as the role of cultural context for communication (Hall, 1976) and would then support the transmission approach to (cross-cultural) communication presented above. In consequence, the results presented in this paper encourage a more systematic scholarly discourse about the use of Hall's (1976) context idea in further research.

6 Conclusion

This paper is localized within the field of international business and addressed the phenomenon of cross-cultural communication. The main purpose of this paper was to systematically analyze misunderstanding in cross-cultural communication and the impact of language and culture beyond the language issue. A subsequent research objective was realized by simulating and analyzing cross-cultural communication in a field-like setting where participants are confronted with the challenges of communication across cultural borders. The experimental design was used to assess effectiveness in communication. Both major assumptions (the im-

pact of language and other cultural elements) were largely supported by the data generated with the two student samples.

Like all empirical research, these results should be interpreted against a number of limitations. A possible limitation is the static nature of the experiment. As it takes time and patience to adapt to different communication styles and conditions (Grosse, 2002), the style of cross-cultural communication may change and effectiveness could be improved through more frequent encounters. Furthermore, a cultural bias is design-inherent as for instance effectiveness are measures more in line with traditional masculine stereotypes (Spitzberg, 2003, p. 101) and therefore needs to be discussed for less masculine cultures. A further limitation could be identified in different culture specific connotations of the terms. An example is presented by Brannen (2004) referring to the English word “bonus” and its Japanese equivalent connoting a very different understanding of the employee pay package (and might also be connoted different in a German speaking environment). The research design was held rather simple with regard to feasibility in a near to real-life setting. Future research needs to investigate to what extent the simplicity of the design has to be modified in order to reduce the detrimental effect of confounding variables. Finally, the results of the two empirical tests might be limited by the convenience samples used.

Despite some limitations, the results could be argued to have implications for business practice and future research. The results suggest implications for businesses that range from the importance of language training to the choice of a corporate company language. To point at the importance of these issues seems particularly justified as to many business professionals, cross-cultural communication, even the prominent medium language, is NOT considered to be a particularly important managerial issue (D. Welch, et al., 2005).Beyond language, cul-

tural aspects are argued to interfere with communication. Consequently, the necessity of cross-cultural training is emphasized.

Future research in the field of cross-cultural communication should further analyze antecedents of efficient (cross-cultural) communication and further explore the theoretical conceptualization proposing contextual noise and contextual loss as major errors. Furthermore, additional research could be extended to other forms of communication like email or video-conferencing (Henderson, 2005, p. 79). Generally, the results of this study support the assumption that there still is “much room for speculation about how culture might affect communication” (Teboul, Chen, & Fritz, 1994, p. 15).

7 References

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Appendix

Table 1 Communication dyads generated in both samples

		Participants			Sender-attached					Receiver-attached		
	NATIONAL	PARTICIP	FEMALE	AGE	DYAD	INTRACUL	INTERCUL	EFFECT	TIME	DYAD	WON	LESS_EFF
		tot.	tot.	mean	tot.	tot.	tot.	[0;1] mean	]0;30s] mean	tot.	tot.	tot.
SAMPLE A	Brasilian	1	1	24,0	70	0	70	0,286	22,3	20	4	16
	Bulgarian	5	5	23,3	275	0	275	0,436	16,3	120	28	92
	Chilean	1	1	26,0	70	0	70	0,500	18,4	35	6	29
	Chinese	4	3	26,1	240	0	240	0,438	17,2	105	23	82
	Colombian	2	2	23,6	140	0	140	0,500	16,0	70	15	55
	Estonian	1	1	23,0	70	0	70	0,643	19,6	45	11	34
	Fin	1	1	22,0	70	0	70	0,500	16,9	35	9	26
	French	1	1	23,0	70	0	70	0,214	22,3	15	3	12
	German	78	48	23,9	5505	4239	1266	0,648	13,9	3576	824	2752
	Greek	1	1	22,0	70	0	70	0,429	22,6	30	9	21
	Irish	4	3	21,0	235	28	207	0,447	15,2	105	23	82
	Italian	1	0	25,0	35	0	20	0,571	11,0	20	4	16
	Polish	5	4	23,3	350	56	294	0,371	14,2	130	28	102
	Romanian	2	1	24,6	110	0	110	0,500	13,8	55	10	45
	Russian	1	1	27,0	70	0	70	0,571	17,9	40	9	31
	US-Amer.	1	0	25,0	70	0	70	0,571	16,6	40	8	32
	Total	**109**	**73**	**23,9**	**7485**	**4323**	**3112**	**0,596**	**14,4**	**4471**	**1020**	**3451**
SAMPLE B	Brasilian	2	2	23,0	70	0	70	0,143	16,4	4	1	3
	Bulgarian	3	2	24,6	105	0	105	0,619	14,0	49	16	33
	Canadian	1	1	26,0	35	0	35	0,571	22,0	4	4	0
	Chinese	6	5	24,1	195	0	195	0,410	15,9	38	17	21
	Fin	3	3	23,0	105	0	105	0,571	15,8	48	14	34
	French	5	5	22,1	182	0	182	0,179	19,0	29	9	20
	German	67	37	24,2	2330	1665	1995	0,642	13,4	1178	334	844
	Greek	1	1	22,0	35	0	35	0,714	13,3	6	6	0
	Serbian	1	1	25,0	35	0	35	0,857	16,7	30	9	21
	Spanish	1	0	22,0	30	0	30	0,333	9,0	2	2	0
	Swedish	1	1	25,0	35	0	35	0,571	18,0	20	3	17
	Ukrainian	1	1	22,0	35	0	35	0,714	14,2	11	5	6
	Total	**92**	**59**	**24,0**	**3192**	**1665**	**2857**	**0,592**	**13,9**	**1419**	**420**	**999**

Table 2 Cross tabulations for NATIVE and EFFECT

Manip./Sample	Manipulations of transmission				Pearson Chi-Square	
NATIVE	EFFECT	Non_native	Native	Total	Value	p
A-1	non-effective	252	79	331	62.468	0.000
	effective	195	215	410		
	Total	447	294	741		
A-2	non-effective	208	55	263	51.822	0.000
	effective	244	224	468		
	Total	452	279	731		
B-1	non-effective	208	48	256	62.802	0.000
	effective	186	185	371		
	Total	394	233	627		

For all cases: df = 1; 0 cells (.0%) have expected count less than 5; p = Asymp. Sig. (2-sided)

Table 3 Cross tabulation on NATIVE and EFF_DYAD

	EFF_DYAD	No_Native	1_Native	2_Natives	Total	Value	p
A-1	Less-eff.dyad	627	399	574	1600	18,725	0,000
	Effective dyad	163	90	221	474		
	Total	790	489	795	2074		
A-2	Less-eff.dyad	751	396	665	1812	9,818	0,007
	Effective dyad	223	89	231	543		
	Total	974	485	896	2355		
B	Less-eff.dyad	439	206	348	993	13,132	0,001
	Effective dyad	160	67	187	414		
	Total	599	273	535	1407		

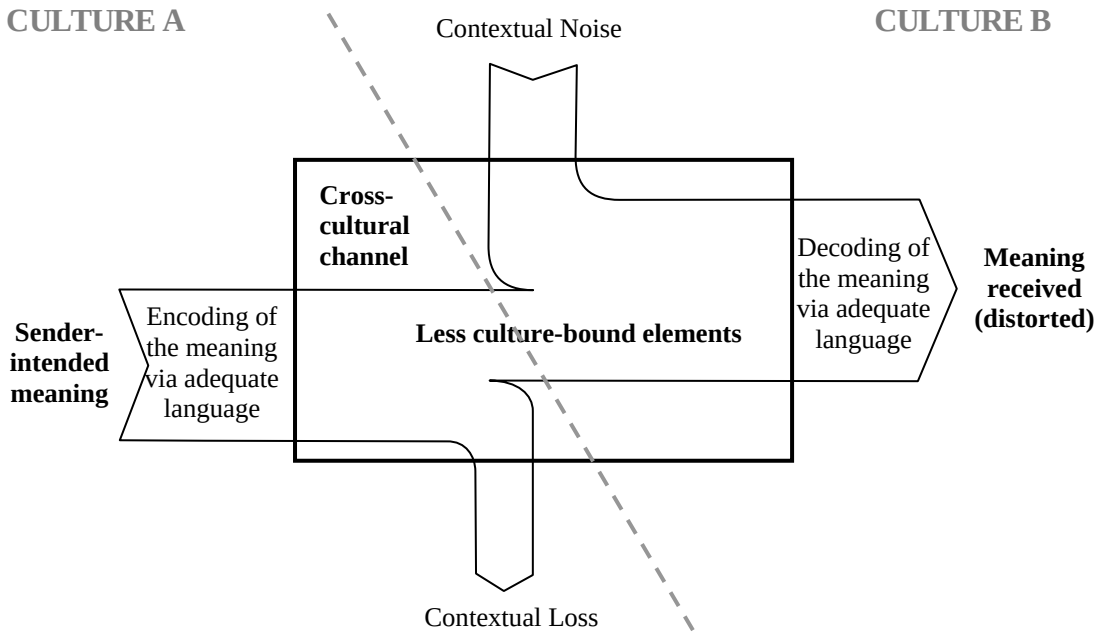
For all cases: df = 2; 0 cells (,0%) have expected count less than 5; p = Asymp. Sig. (2-sided)
Filter: EFFECT = 1

Table 4 Cross tabulation on CULTURE and EFF_DYAD

Sample	Cross-cultural			Pearson Chi-Square	
	EFF_DYAD	intracultural	cross-cultural	Total	Value	p
A-1	Less-eff.dyad	364	263	627	16.577	0.000
	Effective dyad	123	40	163		
	Total	487	303	790		
A-2	Less-eff.dyad	442	309	751	12.11	0.001
	Effective dyad	160	63	223		
	Total	602	372	974		
B	Less-eff.dyad	249	190	439	1.981	0.159
	Effective dyad	101	59	160		
	Total	350	249	599		

For all cases: df = 1; 0 cells (,0%) have expected count less than 5; p = Asymp. Sig. (2-sided)
Filter: EFFECT = 1 AND NATIVE = 0

Figure 1. Cultural interferences on the process of communication



Source: Adjusted from Kittler and Rygl (2007), Krippendorff (1986, p. 25) and Hall (1976)