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## Improving intercultural competency in global IT projects through recognition of culture-based behaviors

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### Abstract:

The success of global IT projects is highly influenced by culture-based behaviors. Issues between individuals arise when behaviors are (mis-)perceived, (mis-)interpreted, and (mis-)judged by using the perceiver's expectations, beliefs, and values. Misperception results when the behavior is not anticipated because it would not occur in one's own culture. As a result, behavior should be the starting point for cross-cultural research. But, studies have primarily focused on belief and value systems which are more abstract and less specific than behaviors. This paper presents a study that analyzed cultural behavioral differences between Indian project managers and their counterparts in other countries. The conducted qualitative, semi-structured interviews revealed insights into cross-cultural challenges and shed light on the complex ways that culture-based behaviors impact IT projects. The study identified 127 behaviors that significantly affected project success and cross-cultural cooperation between Indian managers and managers from all over the world. These behaviors were grouped into 19 behavior clusters. Understanding these behavior clusters, and correlating these behaviors to values and beliefs, will improve project collaboration, and inform cross-cultural training strategies. In addition, existing cultural dimensions were reduced in scope, additional dimensions were defined for clarity, and new business-related dimensions were identified. Finally, based on the study's results, the paper suggests four important components that should be added to cross-cultural training programs for international project managers.

### Keywords:

cross-cultural; behavior; project management; skills; diversity.

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## 1. Introduction

Globalization has increased the number of global projects [1] exponentially. Consequently, this has raised the need to understand the effects of culture on interpersonal and, more important for projects, on managerial interactions. During the past decades, significant research has been undertaken to identify cultural differences that affect global management. The research has focused on identifying belief and value systems that give rise to behavior differences [2]–[6]. Attempts have then been made to correlate these belief and value models to possible behavioral misinterpretations and challenges in global projects. Still, a precise description of behavioral differences that negatively impact cross-cultural project success is missing.

This work aimed at developing a more precise description of the culture-based behaviors that impact IT projects and business with Indian outsourcing companies. Our approach is based on concepts put forth – for example – by Hall [2]: that one can only become aware of one’s own cultural preferences and values when interacting with individuals from other cultures. In this interaction, one can find him-/herself making statements such as ‘they have no respect for authority’, or ‘they have no concept of meeting deadlines’. Such statements and emotions have the ability to serve two purposes that have not been taken advantage of in the past. First, they directly identify and describe sources of project challenges and inefficiencies. Second, they very accurately identify behaviors and values of the person expressing these statements. The study presented in this article provides a framework for understanding cross-cultural issues by extending the existing research that examined ‘why’ people from different cultures acted differently in projects, by identifying 19 behavioral clusters that reveal ‘how’ people from different cultures act differently and how these differences affect project situations. Finally, we linked these behavior clusters back to the existing cultural value dimensions that explain the ‘why’. This linking revealed several additional cultural value dimensions that are important for explaining why people from different cultures act differently in projects.

This paper is structured as follows: before presenting the study, related work on intercultural project collaboration and cross-cultural training strategies is examined. Then, a study with Indian outsourcing companies – being the basis for this paper – is presented. In particular, culture-based behavior clusters that were identified in the study are described and connected to existing cultural value dimensions. Finally, conclusions on cross-cultural trainings are drawn and further implications are provided.

## 2. Background

### 2.1 *Culture as a source of culture-based misinterpretation in global projects*

The importance of culture in cross-cultural interactions is well shown in literature [7]–[9]. Individuals have different values and different preferences with regard to management [10] and leadership that are related to their cultural background [4], [5]. Several studies further indicate the connection of cultural aspects to the effectiveness of IT-related projects [11]–[15]. Theoretical rationales supporting the relevance of national and regional culture to business focus on various dimensions such as beliefs concerning space, time, context [2], duty, responsibility, status, stress [3], and relationships [6].

The ways to define culture are manifold – ‘whatever a person must know in order to function in a particular society’ [16]; ‘collective programming’ [4]; ‘ideas and their attached values’ [17] – but it is widely agreed that cultural values and norms manifest in a person’s behavior [3], [6]. The underlying belief and value systems have been and continue to be the focal point in research, although in practice people react to behaviors – not to the very abstract underlying beliefs. Following Chris Argyris [18] and Peter Senge [19] individuals interpret behavior. They evaluate perceived behavior by applying their own values and beliefs to perceived behavioral patterns. Issues between individuals arise when culture-based behaviors are (mis-)interpreted and these misinterpretations are then judged using the perceivers not the actor’s beliefs of good and bad. From a globalized project management perspective, direct research to identify

culture-based project challenges due to behavioral differences between cultural groups – rather than inferring behavior differences from belief differences – has been lacking.

Behaviors remain relatively uncharted, though some attempts have been made to use behaviors as correlated examples of the belief and value dimensions. Unfortunately, as one tries to map the universal value dimensions to national behavior, one realizes the lack of universality of this approach. For example, Hofstede's research [3] identified a very low power distance index (PDI) for Austria in the research sample of 1970. "The very low (PDI) score for Austria is surprising, but the position of Austria becomes clearer if we also take its uncertainty avoidance score into account" [4, p. 121]. This example illustrates that the behaviors correlated to value dimensions from surveys in the 1970s provide limited and often erroneous guidance for managers of global projects.

In addition to the high complexity of and the interconnections between the dimensions, various researchers have identified biases in Hofstede's studies such as the disproportional focus on Western countries or the restricted focus on IBM-related respondents [15], [20]. Moreover, restricting cultural boundaries to national and geographic borders seems inappropriate in a globalized world [11], where individuals – especially global project managers – are influenced by multiple regional cultures. Finally, people generally do not think in terms of values or beliefs – and especially they do not think in terms of anthropologically defined values and beliefs.

## 2.2 Cross-cultural training strategies

Cross-Cultural Training (CCT) research has identified primary considerations for improving sojourner performance and well-being: the type of assistance needed (what), the methods used to provide this assistance (how), and the time and place for providing the assistance (when and where) [21]–[23]. Best practices in Cross-Cultural Training suggest three types of assistance to be productive at work and enjoy the expatriate experience in general [21], [24], [25]:

- Assistance in learning country facts. This means increasing the expatriate's knowledge about other cultures and behaviors;
- Assistance in learning to identify, interpret, and respect different behaviors which supports the development of intercultural sensitivity. This includes constructively handling feelings that these behaviors induce as well as changing one's own attitudes about culture-based differences;
- Assistance in acting in appropriate ways in different situations. This helps the learner acquire intercultural skills for effectively handling different culture-based behaviors and for becoming a cross-cultural self-learner.

A variety of methods have been developed to provide this experience: from providing passive knowledge transfer to performing experiential activities designed to put the sojourner in real-life situations. Passive knowledge transfer can use personal assessments, lectures, area and case studies, and lists of "dos" and "don'ts". Experiential activities, on the other hand, include simulations, role-plays, exchanging perceptions, field trips, or real-life coaching at the foreign destination. Some theories suggest that cross-cultural training is best when provided before the sojourner leaves for the assignment as this helps to enable cultural learning from the beginning [21], [24]–[26]. Other theories propose that training should be performed when the expatriate has already experienced the challenges of working in a new culture [21], [24], [25]. The most recent theories recommend that cross-cultural training parallel the cultural adaptation process (illustrated in Fig. 1).



Fig. 1. Culture Adaptation Process [23]

These theories hypothesize that the sustainability of content will vary during the expatriate's assignment. Effective cross-cultural training should take advantage of this by aligning training to the cultural adaptation process. This means adjusting cross-cultural content to the psychological predispositions that occur during the various phases of the process [23].

Typically, cross-cultural training programs last one to two days. A recent survey showed that 64 percent of US companies provided at least one day of training. Though, 76 percent of these companies considered attendance at training sessions to be optional [25]. Furthermore, other studies confirm that 62 percent of US companies offer some form of Cross-Cultural Training, although the average length of this training is less than one day [27]. There are many apparent reasons for this disconnect between what researchers believe should be done to adequately prepare business expatriates and what is actually done; for instance, the disbelief in the effectiveness of cross-cultural training, the cost, or the use of other approaches. All these have resulted in the current state of inadequate preparation [28]. In contrast to the training given virtual, frequent flier, and part-time global workers, who often manage global project teams, the average organization takes training for expatriates more seriously. They provide pre-briefing information material followed by a one-week pre-departure program, and an optional on-arrival orientation. Foreign aid agencies in European countries, (e.g. Germany, Nordic Countries) take training even more seriously; they usually provide a one-month pre-departure program and in some cases up to three months with included language training [25].

Currently, most Cross-Cultural Training (CCT), even for expatriates, consists of passive knowledge transfer and emphasizes etiquette and a discussion of values and beliefs. Nevertheless, the best approach appears to use a combination of behaviors, values, and beliefs [29]. Behavioral examples enable the global worker to identify typical actions that would be unanticipated in their own culture. This helps her or him to perceive things they might otherwise miss, such as body language or a particular phrase. On the other hand, knowledge about values and beliefs enable global workers to properly interpret and judge these unanticipated actions and consequently to react in a culturally appropriate manner instead of exacerbating the cultural difference by reacting in a way unanticipated by their partner global worker.

While discussions of values and beliefs have been shown to improve the global worker's cultural awareness, training does not appear to effectively prepare the global worker for the specific behavioral difference they are about to experience [29]. One training approach that does focus on behavior is the culture specific assimilator [29]. This approach presents an example of behavior and asks the global worker to select one of several courses of action as the most appropriate response to the situation. A description, of why one action is appropriate and the others are not, is then given to the global worker. Unfortunately, as this training approach was primarily developed and used by the American Peace Corp and the US Military, no culture assimilators have been developed that have a business orientation. This deficiency may be due to the requirement of "an exceptionally good understanding of the two cultures" [30, p. 2]. To date, an exceptionally good understanding of business behaviors has not been available to people developing cross-cultural training for global project managers. This paper begins to address this challenge.

### **3. Examining project-relevant culture behaviors with Indian outsourcing companies**

The study presented in this paper was designed to identify behavioral differences between Indian project managers and their counterparts from 17 different countries around the world (Australia, Belgium, Canada, China, France, Germany, Japan, New Zealand, Philippines, Poland, Singapore, South Africa, Sweden, Switzerland, Turkey, UK, and USA). The conducted interviews identified behaviors that affected IT projects in regard to their effectiveness, efficiency, and their success.

#### *3.1 Research approach*

In Indian outsourcing companies, managers in the areas of sales, implementation, and operations often work in multi-cultural environments where they interface directly with their global customers. Initially, these global customers were from English speaking countries and Northern European countries. Throughout the 21st century, Indian outsourcing companies have expanded into new markets (e.g. East Asia, Southern Europe, the Middle East, and Africa). In the early

years of outsourcing most Indian managers were graduates of leading Indian, American, and English universities; as a result, these managers entered the workforce with knowledge of cultural differences and an ethnorelative orientation. The dramatic growth and success of these companies has forced them to increase the range of their recruitment to include second tier Indian universities where many graduates have little or no cross-cultural experience, which increases the chance for being on the ethnocentric end of the scale. As a result the effectiveness of cross-cultural training has become increasingly important to these companies.

Since the purpose of the study was to identify as many diverse and troublesome behaviors in IT projects as possible, a qualitative research approach was chosen for this investigation. Between December 2011 and January 2012, several Indian companies graciously allowed the study initiator to interview senior staff for the purpose of identifying cultural differences. In detail, the managers were asked what negatively impacted their ability to successfully and straightforwardly provide their customer with a satisfying service experience. The interviewees were asked to describe their background, their formal cross-cultural training, and customer behaviors:

- Which made them feel uncomfortable;
- Which made it difficult to meet their responsibilities or achieve their goals;
- Which negatively affected their work morale;
- Which seemed odd, irrational, or offensive;
- Which were confusing, surprised them, or did not meet their expectations.

Furthermore, the interviewees were asked which behaviors were, in their opinion, commendable and should be emulated by Indian managers. The interviews were designed in a semi-structured manner to allow follow-on questions [31], and to ensure an open, unbiased data collection process.

### 3.2 *Research method*

The leading research question of this study was how Indian project managers perceived the behavior of their global counterparts in international IT projects. The sampling for the semi-structured interviews [31] consisted of 40 Indian managers with international experience managing outsourced projects. Through an online search, seven Indian outsourcing companies were contacted with the study request. Two of these seven were willing to allow their employees to participate in the interview series. All interviews had an approximate duration of one hour, and provided the data for this research.

The collected data was analyzed in a content analysis [32] through an initial category system. These categories represented functional areas in the project management lifecycle. By analyzing the content of the interview transcripts, business behaviors were collected and assigned to the category system. Through triangulation, some of the qualitative results were quantified for representational purposes.

### 3.3 *Culture-based behavior clusters for IT projects*

The study identified 19 behavior clusters that are relevant in IT projects/business according to the interviewed Indian managers. These behavior clusters were logically derived from a total of 127 behaviors revealed in the interviews. These behaviors affect personal relationships, business communication, how the daily work is done, engagement relationships and long-term business relationships. Table 1 illustrates the quantified dispersion of the 19 behavior clusters according to their frequency of mention in the interviews.

The findings are characterized by a high number of behavioral clusters relevant to IT projects. These clusters represent business processes included in all IT projects. Data analysis revealed that the unique identified behaviors were not distributed equally between these clusters.

More than half (in particular 62.1 percent) of the uniquely identified behaviors predominantly affected five of the clusters:

- 16.5 percent, of the behaviors concerned differences in communication. The data analysis showed that especially the tendency to communicate directly or indirectly affected project situations;
- 15.7 percent of the behaviors focused on the perceived failure to build a comfortable relationship with the customer. This perceived failure negatively affected their performance as well as the customer's satisfaction for the provided services, and their personal motivation for the project;
- 11.8 percent of the behaviors, involved decision-making, specifically who made decisions and how decisions were made;
- 10.2 percent of the behaviors introduced different approaches to project planning and project implementation; and
- 7.9 percent of the behaviors reflected different levels of importance assigned to following specified processes which impacted efficient project collaboration.

Table 1. Culture-based Project / Business Behavior Clusters

<b>Behavior Cluster</b>	<b>No. of sub-behaviors from study</b>	<b>% of total sub-behaviors</b>
How Individuals Prefer to Communicate	21	16.5%
How Relationships are Formed	20	15.7%
How Decisions are Made and Who Makes Them	15	11.8%
How Projects are Planned, Scheduled, and Executed	13	10.2%
Following Defined Processes	10	7.9%
Recognizing and Describing Problems	7	5.5%
How Requirements are Handled	5	3.9%
Appreciation of Work	4	3.1%
The Importance of Milestones	4	3.1%
Problem Escalation	4	3.1%
Value of Monitoring and Business Processes	4	3.1%
Approaches to Motivation	4	3.1%
Others	16	12.6%
<b>TOTAL</b>	<b>127</b>	<b>100%</b>

These five major behavior clusters are qualitatively described in detail in Table 2. Although these five behavior clusters were most often mentioned in the interviews, this does not necessarily mean they have the greatest impact on a project's success. It is possible that the impact of one of the remaining 14 behavior clusters may have more impact on a global IT project's success. For instance, if and how problems are reported can be a critical issue especially in globally distributed projects. While some team members in an intercultural team might report problems immediately, others may conceal problems and try to solve them alone first. Also different approaches toward following specifications can influence the cooperation within an IT project team. Confusion may arise and trust may be lost when some team members do not

want to vary from published and agreed to specification no matter what while other team members take a more flexible approach and also make un-requested changes.

Table 2. Five major behavior clusters

Behavior Cluster	% of total sub-behaviors
Behavior 1: How Individuals Prefer to Communicate	<p>Some business partners (e.g. from Canada, Germany, the Netherlands, and the USA) were described by the interviewees as being very direct when communicating (e.g. ‘very open, let you know exactly what they were thinking’), other business partners (e.g. from China, India, Japan, and the Philippines) were perceived as being indirect when communicating (e.g. ‘do not like admitting mistakes in public’).</p> <p>The difference in communication behavior between Indian managers, who tend to be indirect and managers who were direct led to project difficulties. For example, in many instances the Indian interviewees felt that the customer did not value their expertise because their customer used very blunt language (e.g. did not mask their displeasure when projects were late or problems arose). This blunt language was interpreted as ‘disrespect’, which hindered trust and created barriers for building comfortable relationships.</p>
Behavior 2: How Relationships are Formed	<p>According to the interviewees, in some business cultures individuals tend to form relationships quickly. Interviewees described these business partners as being curious about their personal lives and being immediately hospitable (e.g. ‘asking where someone grew up’, and ‘inviting someone home for dinner’). These business partners were also willing and comfortable talking about themselves. In some cases, these business relationships were described as rather superficial (e.g. Canada and Sweden). In other cases, they were described as really delving deeply into a person’s life (e.g. Brazil and India). The Indian interviewees considered themselves to be both curious about others and comfortable talking about themselves: ‘Indians have a personal space that is non-existent. You talk to an Indian anywhere for about an hour ... you will know everything about him’.</p> <p>On the other hand, individuals from other backgrounds (e.g. Austria, China, France, Germany, Japan, and Korea) tend not to discuss their private lives in business environments. Relationships are formed slowly over time. Attempting to talk about private things in first meetings may create silence or uninformative responses. The interviewees felt this “coldness” created tension in project situations with Indian managers: ‘The first meetings were very cold and only about business. No talking about family or personal life – but after a few weeks the partners started to open up and became friendlier’.</p>
Behavior 3: How Decisions are Made and Who Makes Them	<p>The interviews revealed two different ways of dealing with decision-making. Interviewees stated that with some business partners (e.g. Canada, China, India, and the USA) the leader made most of the decisions. Sometimes the leader made decisions on their own. Often, especially for important decisions, the leader would consult with others and even go into open discussion with stakeholders or team members (e.g. ‘actively participate in brainstorming’). With these business partners decision-making was perceived as a rather fast process.</p> <p>In contrast, other business partners (e.g. Japan) needed to have full agreement from all stakeholders for a decision. If one or more stakeholders did not agree with the proposed solution, the process was either delayed or might be annulled. In general, this decision-making approach was perceived as rather time-consuming. However, once all stakeholders agreed on a decision, the decision was implemented quickly and smoothly.</p>

Table 2. Five major behavior clusters (cont.)

Behavior Cluster	% of total sub-behaviors
Behavior 4: How Projects are Planned, Scheduled, and Executed	<p>The process of planning and implementing projects differs from culture to culture. Some business partners (e.g. from India) tend to emphasize formal planning methodologies and project performance metrics when developing a project schedule. Other partners (e.g. Canada and the USA) tend to focus on task descriptions and milestone dates when developing the project schedule. For these business partners, once a schedule is accepted, it is not considered to be changeable; therefore, changes require formal renegotiations.</p> <p>Contrarily, some project partners (e.g. China and Korea) do not assign much importance to detailed schedules, as they anticipate that ‘things never work out completely as planned’. Therefore, they consider schedules to change over time through informal renegotiations.</p>
Behavior 5: Following Defined Processes	<p>As revealed by the interviewees, certain business partners (e.g. from Germany, Japan, and the Philippines) became extremely uncomfortable in unstructured environments. They avoid situations that were not structured with commonly known and accepted procedures. These business partners appeared most comfortable when they had precise rules or procedure to follow (e.g. ‘implementing changes only after investigation, agreement, and documentation’).</p> <p>On the contrary, the Indian interviewees felt constrained by rules and procedures. They were used to working in less structured environments where they had the ‘freedom of action’ – where they could choose how to work and figure out their own way to get to a solution (e.g. ‘I like to try to prototype new ways of doing things’).</p>

### 3.4 Connecting behavior clusters with existing cultural value dimensions

In addition to the previously described clusters, the researchers attempted to correlate, in real time, the answers given during the interviews to a set of recognized cultural attributes. This real-time correlation was used to structure the follow-on questions within the interviews. These follow-on questions attempted to identify the underlying values and beliefs of the interviewees so that the behaviors described could be attributed to these values and beliefs. In a few instances these follow-on questions identified values and beliefs held by the interviewees that have not been widely researched but that appeared to be extremely important in explaining the behaviors of the interviewees and the cultures with which they were interacting. The following section describe the cultural values and beliefs used to structure the follow-on questions and reveal the correlations found when analyzing the data.

While the primary objective of the research was to reveal project- and business-relevant, culture-based behaviors impacting project success, the research also attempted to link the identified behaviors to existing beliefs and value frameworks. These links can be important in regard to Argyris’ [18] theory. Behaviors are what people perceive and react to, the reaction, however, will be shaped by interpretation and judgment, and interpretation and judgment result from the application of ones own values and beliefs. The follow-on behavior will be a perceivable action resulting from how the initial behavior is perceived, interpreted, and judged, and these three internal activities are strongly affected by the values, beliefs and expectations of the person reacting to the behavior. Enabling the global worker to understand both behaviors and values/beliefs and how they are related might be the key to effective training for cross-cultural projects.

Table 3 provides an overview of the culture frameworks based on the research of Hofstede et al. [3], Trompenaars and Hampden-Turner [6], the GLOBE study [5] and other research.

As the descriptions in Table 3 reveal, some dimensions reference multiple and even conflicting behaviors and the behaviors referenced often have little to do with management practices. For this reason, some dimensions were split into two or more dimensions and were renamed. This structuring was necessary as too many behaviors are hypothesized to be the result of each dimension making it difficult to accurately infer a particular behavior based only on the determination that a culture has a specific cultural preference, such as collectivist.

Table 3. Cultural attributes specifying beliefs and values

ID	Dimension	Reference in Literature	Description of Dimension
A	Hierarchy versus Lean	[33], [34]	<p>According to Laurent [33] and Schwartz [34], some cultures believe well accepted rules, responsibilities, and defined behavior for different levels within a business organization are needed for the business to operate efficiently. Contrarily, other cultures would prefer less hierarchy.</p> <p>This dimension differs from Hofstede's PDI [3] as some cases reveal that a country with a low power distance index could still apply strict rules and strong hierarchies in organization. A country example for this phenomenon would be Germany.</p>
B	Risk Taking versus Risk Averse	[35], [3]	<p>Although this dimension is related to Hofstede's [3] Uncertainty Avoidance Index, he explicitly states that "uncertainty avoidance does not equal risk avoidance" [4, p. 148]. Hence, avoiding uncertainty or avoiding risks should be considered as independent cultural dimensions. Köster [35] reinforces this idea in her work on international project management by using the contrasts of 'embracing risks' and 'avoiding risks' when conducting a cultural gap analysis in a project.</p>
C	Work Hard versus Outcome	[5]	<p>The GLOBE study's [5] dimension of 'performance orientation' recognizes that some societies reward performance and emphasize results while other societies emphasize loyalty and cooperative spirit. However, the GLOBE's description also includes other values, for instance approaches to time, achievement, or quality. Therefore, here the aspect of valuing hard work or the work's outcome was uniquely identified for this research.</p>
D	Strict Procedure versus Ambiguity	[3]	<p>This dimension describes the Uncertainty Avoidance Index by Hofstede [3], which measures the extent of perceived discomfort in uncertain, unknown situations. Here, the dimension was renamed to prevent confusion between uncertainty and risk avoidance (see dimension 'B').</p>
E	Individualism versus Collectivism	[3]	<p>This dimension by Hofstede [3] describes the tendency of people to look after themselves or their immediate family. The belief that challenges are better met when a person's first responsibility is for the safety and improvements of her or his self and family. On the opposite stands the tendency of people to look after the good of the group, to expect members of the group to protect them, and to give them security in exchange for their loyalty towards the group.</p>
F	Neutral versus Emotional	[6]	<p>As described by Trompenaars and Hampden-Turner [6], in some cultures, emotions are openly and naturally expressed. People tend to talk loudly and excitedly. Furthermore, decisions may be based on emotions and intuition. In contrast, in neutral cultures emotions are carefully controlled, held in check, and are not publicly displays. Moreover, decisions are most often rational and separated from emotions.</p>
G	Monochronic versus Polychronic	[2], [6], [35]	<p>According to Hall [2], individuals from polychronic cultures tend to do many things at a time. They are easily distracted and tend to think about what will be achieved rather than when something must be completed. Individuals from monochronic cultures, on the other hand, tend to do one thing at a time. They concentrate on the job at hand and tend to think about when things must be achieved. Individuals from these cultures often undertake careful planning and scheduling and consider time management to be highly important.</p> <p>This aspect is also included in the dimension 'achievement versus ascription' by Trompenaars and Hampden-Turner [6]. Additionally, also Köster [35] uses the distinction between 'sequential' and 'synchronic' approaches for her cultural gap tool.</p>
H	In-Group Collectivism	[5]	<p>This dimension identified by House et al. [5] describes the degree to which people express pride, loyalty, and cohesiveness in their organization.</p> <p>Several studies have shown: individual, organizational, and national preference for individualism versus collectivism can differ within a single country[4]. Hence the importance of focusing on In-Group collectivism when applying the concept to organizations.</p>

Table 3. Cultural attributes specifying beliefs and values (cont.)

ID	Dimension	Reference in Literature	Description of Dimension
I	Power Distance versus Equality	[3]	The dimension of power distance, as suggested by Hofstede [3], measures the acceptance of inequality or equality within a society. This refers to the extent of acceptance of unequally distributed power in organizations and within the society. In such cultures, the less powerful believe that those in power have their best interests at heart and are better equipped to make the best decisions. In contrast, in egalitarian cultures status is not recognized as a right and natural order of things and individuals do not accept unequal distribution of power.

The behavior clusters described in Table 2 were associated with the underlying dimensions described in Table 3. During the process of linking the behaviors to the value and belief dimensions, some dimensions were discovered that were not identified or sufficiently described in the literature on cross-cultural management. Table 4 gives an overview of these newly defined and structured dimensions.

Table 4. Additional cultural value dimensions examined in the study

ID	Dimension	Description of Dimension
a	Strong Relations versus Impersonal	This dimension addresses the question of whether personal aspects should be a part of business relationships. In strongly relational cultures factors such as trust, favors, and shared time are more important than completing performance on time. Personal relationships may even be a prerequisite for doing business and for remaining high in the business partner's priority queue. Furthermore, people tend to be willing to work hard for people with whom they have a strong relationship. When personal relationships are believed to be required for successful business, then maintenance of personal relationships becomes important in cross-cultural cooperation. This aspect is reflected in the existing dimension 'specific versus diffuse' [6], which describes how individuals – to a greater (specific) or lesser (diffuse) extent – separate different types of relationships. Although the value of relationship is often mentioned, none of the existing cultural dimensions focus on the consequences to business of the presence or absence of strong personal relationships.
b	Value Harmony versus Conflict	This dimension describes that in some cultures, words and actions that re-enforce the cohesion of the group are considered to be good and proper. They believe that the loss of group harmony caused by conflicts or loss of interpersonal harmony is a negative influence for the individuals as well as the group. In contrast, other cultures believe that minor conflicts can result in creativity and improve decision-making. Although Köster [35] mentions a similar cultural difference called 'conflict versus consensus', her descriptions vary from this definition.
c	High Reciprocity versus Low Reciprocity	The term reciprocity refers to the importance of returning favors – even years after the favors have been given. This emerges from the belief that mutual favors bind people and make them more reliable and predictable. This value is highly associated with the concept of 'losing' or 'protecting' one's face.  The dimension could be connected to how relationships are built and Hofstede's [3] short-term versus long-term orientation. Although Hofstede's studies come to the conclusion that short-term orientation is connected to respecting traditions, preserving one's 'face' and fulfilling social obligations, the data seems to be biased as many Asian countries scored the highest for long-term orientation. Moreover, our study does not support this connection but reveals an opposite dependence.

Table 4. Additional cultural value dimensions examined in the study (cont.)

ID	Dimension	Description of Dimension
d	Task versus Relationship	<p>This dimension describes the approach towards teamwork. On one end of the range it is believed that tasks and deliverables are most important. At this extreme people prefer to segment the first and most essential part of any project into tasks, defining the task's deliverables, and properly manage the task to completion. Individuals consider successful tasks completion to take precedence over private concerns. From a managerial perspective, in these cultures team members are fungible. At the other extreme people believe that tasks and deliverables are completed by people, people are the key asset for a project. The needs of the project team members, even non-business needs, will take precedence over task deadlines.</p> <p>The dimension's extremes also reflect in the current discussion on traditional and agile project management [36]. In leadership theory this contrast is described as being task- versus relationship-oriented. It differentiates two leadership styles: those dealing with task accomplishment and those focusing on facilitating team interactions [37]. In addition, also here Köster [35] identified this sphere for international project management and examines the impacts on managing stakeholders, leading and managing a team, and on planning, implementing, and controlling projects. Still, some emphasis – especially for the high value of individuals for the project – are not that strong in her definitions.</p>
e	Continuum versus Stages and Phases	<p>People from cultures with a continuum orientation tend to consider projects holistically: from the pre-phase of a project through the actual project phases and the future after the project has ended. Such individuals may believe that structuring in phases is not necessary or – in extreme cases – even hindering for making decisions. People with that belief may not give a high importance to setting priorities. On the other hand, people with a phase orientation tend to break projects into small tasks and make very detailed plans. They believe that it is most beneficial to success to prioritize and schedule tasks. Furthermore, they tend to stress the importance of meeting scheduled milestones.</p>

Finally, the existing dimension from literature (described in Table 3) and the newly structured dimensions (described in Table 4) were correlated to the five major behavior clusters (compare Table 2). This interlinking is illustrated in the following Table 5.

Table 5. Five major behavior clusters linked to cultural dimensions

ID	Behavior Cluster	Associated Cultural Dimensions
1	Behavior 1: How Individuals Prefer to Communicate	Hierarchy versus Lean (A) Individualism versus Collectivism (E) Neutral versus Emotional (F) Value Harmony versus Conflict (b) High Reciprocity versus Low Reciprocity (c)
2	Behavior 2: How Relationships are Formed	Strong Relations versus Impersonal (a) Task versus Relationship (d)
3	Behavior 3: How Decisions are Made and Who Makes Them	Hierarchy versus Lean (A) Risk Taking versus Risk Averse (B) Individualism versus Collectivism (E) In-Group Collectivism (H) Value Harmony versus Conflict (b) High Reciprocity versus Low Reciprocity (c)

Table 5. Five major behavior clusters linked to cultural dimensions (cont.)

ID	Behavior Cluster	Associated Cultural Dimensions
4	Behavior 4: How Projects are Planned, Scheduled, and Executed	Work Hard versus Outcome (C) Monochronic versus Polychronic (G) Strong Relations versus Impersonal (a) Task versus Relationship (d) Continuum versus Stages and Phases (e)
5	Behavior 5: Following Defined Processes	Hierarchy versus Lean (A) Strict Procedures versus Ambiguity (D) Power Distance versus Equality (I) Strong Relations versus Impersonal (a) High Reciprocity versus Low Reciprocity (c) Task versus Relationship (d)

#### 4. Conclusion

This study revealed 127 behavioral differences between Indian project managers and their counterparts from all over the world. These behaviors were clustered in 19 categories correlated to business processes included in all IT projects. More than 60 percent of all behaviors were clustered in five of these categories:

- How project team members communicate;
- How project team members form relationships;
- How decisions are made for the project;
- How projects are planned and scheduled; and
- How rigorously defined processes are followed.

These five categories seem to have a noteworthy impact on managing intercultural projects, as more than 60 percent of all behaviors were clustered in these five categories. Given the limited time currently allocated to cross-cultural training project managers and team members (one to two days on average) [25], [27], focusing training on the behaviors most likely to impact project performance, that is, learning to recognize and effectively deal with these behaviors, should maximize the positive effects of such training. It should prove helpful to further generalize the 127 unique behaviors and the 19 clusters on the following meta-level:

- Culture-based patterns and protocols for communication;
- Culture-based approaches for developing appropriate business relationships;
- Culture-based ways to show respect/disrespect;
- Culture-based definitions of 'good work'.

These meta-levels provide a logical framework within which global project managers will be able to better understand culture-based behavioral differences that affect the success of cross-cultural management strategies. Further, cross-cultural trainers and intercultural coaches can benefit from these findings by using behavioral differences as a basis for their teaching strategies.

These four components should be considered – both as part of the passive content as well as the experiential learning activities – according to the study's results:

- Developing tactics that ensure effective communication;
- Supporting team members in developing appropriate business relationships;
- Developing mutual ways to show respect and avoid being disrespectful;
- Developing mutually accepted definitions of 'good work'.

The authors hypothesize that designing cross-cultural training emphasizing these meta-level behaviors (and the corresponding sub-behaviors) will better prepare project managers for international projects than current training approaches that have been designed to emphasize etiquette and understanding value and belief differences. The authors contend that behaviors are easier to describe, recognize, and evaluate than values and beliefs. Our research enables individuals to learn – in addition to general facts related to a specific culture, such as etiquette, and culture general concepts, such as values and beliefs – also the actual behaviors they will encounter. This provides immediately useful information that can be used to create emotional responses and that can form the basis for skills practice. Furthermore, combining behaviors with culture general values and beliefs builds up the competencies to effectively function in any new culture and helps the individual to become a self-learner. Emphasizing behaviors allows trainers or individuals to focus on their reaction to unexpected behaviors thereby increasing their intercultural sensitivity and practicing their intercultural skills. Of course, these hypotheses need to be proven in follow-on research.

The focus on behavior in this research provides the missing link between action and inappropriate reaction when managing global projects. These behaviors enable global workers to identify typical actions that would be unanticipated in their own culture. Linking these behaviors to widely accepted values and beliefs enable them to properly interpret and judge these unanticipated behaviors and consequently to react in a culturally appropriate manner. This approach will help the global worker react in a way anticipated by their global colleague consequently ending instead of exacerbating their cultural differences. In addition, the new, business-oriented, cultural dimensions and reduced scope of some existing cultural dimensions will simplify understanding the merits of the identified behavioral differences by enabling global workers to understand why their global colleagues are acting the way they do.

In conclusion, combining the existing body of research [2], [3], [5], [6] which focused on differing values and beliefs with the research presented in this paper, which focuses on behavioral differences, should provide significant advantages for individuals attempting to improve their effectiveness in international management. Our research shows that both behaviors and value/belief should be part of training; however, such a training program has not been developed. Future research should use the behaviors identified here as the basis for Cross-Cultural Training such as culture assimilators, critical incidents, or even role-plays. Moreover, a form of metrics should be developed to assess the benefit of this training approach. Finally, the results of this study can enhance the corporate knowledge base of global organizations if they analyze these newly identified behaviors, validate them in their context, and add them to activities and material of their corporate cross-cultural training programs.

The study relies on the reactions of individuals who have experienced the challenges of cross-cultural interactions. The results are not generalizable because the study only included Indian managers. In order to generalize the results of the study, similar studies in other cultural contexts would be needed. Further, the study presents those behaviors that were mentioned most by the interviewees. The study did not attempt to measure the impact of each of these behaviors and the impact of each behavior may vary considerably. This means, it might be possible that a small number of behaviors different from the five highest ranked behaviors described in this study may be more important for collaboration and business success than the higher ranked behaviors of this study.

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