Cultural meaning systems of learning
and their influences in the international university context

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Practical background. Intercultural trainings to prepare freshmen for studying in the multicultural environment of Jacobs University have been designed on the basis of empirical results of survey research conducted at this institution. Derived from the theoretical background of mind and virtue orientation these trainings have been designed to increase the understanding of cross-cultural differences in learning assumptions and to help students adapt to the mainly Western classroom culture at Jacobs University. These trainings have been designed and conducted by the Diversity Taskforce and peer trainers. In the past, measures have included pre-arrival trainings for large groups from Romania and Bulgaria, orientation trainings for all incoming students upon arrival and Western Classroom Culture workshops held multiple times throughout the year. Trainings include theoretical background information, interactive exercises, discussion and skill development.

Research background. The main cultural psychological theory that provides the background for the current project is the mind/virtue framework of concepts of learning, as defined by Li (2003). In a qualitative study, she found that Western students have a 'mind-oriented' approach to learning and Asian students have a 'virtue-oriented' approach. Both orientations can be traced back to the philosophical heritages in the respective cultures. At the core of the Mind orientation is doubt towards pre-existing knowledge. Learning is primarily defined as a process of developing critical thinking skills. In the Virtue-orientation, learning is conceptualized as the pursuit of moral and social development, with respect and diligence as guiding principles.

Aims. The main aim of the project is to increase the awareness of cross-cultural differences in the learning process on the international campus of Jacobs University.This should facilitate student adjustment to the mainly Western, mind oriented classroom culture at this university.

Before starting university, students from different cultures have been raised in different educational environments. Due to relevant philosophical backgrounds, educational systems value different ideas about the pursuit of knowledge, the teacher-student relationship, appropriate learning strategies, etc. Although Jacobs University is modeled on the Western academic system and upholds the respective educational values, it is crucial that no group of students is disadvantaged and unable to perform to the best of their abilities due to cultural differences. The project will therefore increase awareness and understanding for cross-cultural differences in learning, for both students and faculty. Ultimately this should increase academic life satisfaction for all status groups and prevent students from underperforming.

Main contribution. Intercultural trainings have been offered to both graduate and undergraduate students at Jacobs University, during Orientation Week, for some years. These trainings cover a broad range of issues, relating to subjects such as stereotypes, non-verbal communication, on-campus living, classroom behavior, etc. Assessments have shown that students consider these trainings helpful for preparing for and dealing with the academic environment. In 2007 an Intercultural Need Assessment was conducted to assess the additional needs of students, faculty and staff related to the multicultural environment. To assess whether the mind / virtue theory applied to the international academic setting at Jacobs University and its potential impact on student satisfaction and performance, a scale based on these cultural concepts of learning was also included.

Interestingly, results indicated a significant discrepancy between the values of (1.) students from different cultures, and (2.) the (mostly German) faculty and students. This is to say that the mean virtue orientation of both Socratic students (clustered groups, based on the World Values Survey cultural regions) and Non-Socratic students was significantly higher than faculty's virtue orientation. Results for the mind orientation indicated that faculty value the mind oriented classroom behaviors much more than students overall assumed that they would. Additionally, students with non-Socratic backgrounds reported having significantly greater difficulties in showing these mind oriented behaviors than students who originated from Socratic based cultural backgrounds.

The results of the survey have caused us to revamp the trainings with more focus on mind and virtue orientation, including new theoretial information, critical incidents and having the students reflect upon their own values and behaviors.

Implications. With international academic mobility increasing in both quantitative and qualitative importance, it is essential for institutions of higher education to understand and be aware of the cultural differences in the students they are welcoming. The current project aims at increasing this understanding. An improvement of the understanding and appreciation of the difference in the meaning that students attach to learning could lead to institutional changes that improve education (Tweed & Lehman, 2002).

Introduction

In academia, learning is a concept that we interact with on a daily basis. Not only for students, but also for faculty, learning and all activities related to this concept make up an important part of the day. For faculty, one might even say that learning is a central part of life. Not only is one engaged in a learning process personally by default when pursuing an academic career, but one also actively shapes the learning environment for the students that one teaches. Since this concept is such an integral part of life within academia, its underlying assumptions are often taken for granted. We are already taught from an early age how a good student should behave, what the most appropriate learning strategies are and what we expect from both teachers and students in and outside the classroom. Within a mono-cultural environment it is therefore not difficult to forget that a long history has precedet the way we think about learning today and that learning is a concept that is inherently dependent on the cultural context that shaped it. However, due to globalization effects, hardly any academic environment can rightfully be called 'mono-cultural' anymore. Over the last years, international mobility has become an increasing part of everyday life at universities around the world. International exchange on all levels of the organization, international research cooperations, and increasing numbers of international student enrollment have become indicators for the assessment of institutional 'quality' (Teichler, 2004).

However, despite increasing awareness of differences between students from different cultural regions, the core problems faced by international students go unacknowledged more often than not. Another risk is that when observed, behaviors are misinterpreted, observations of individuals are generalized for members of the whole group or differing styles of communication leads to de-grading on oral or written exams. Chinese students are for example still commonly observed by Western faculty to rely heavily on rote-learning, or unwilling to participate in classroom discussions. To correct misinterpretations of these kinds of culturally influenced learning behaviors as mere reluctance on the part of the student, calls for the need to understand the distinct cultural assumptions about learning that are usually taken for granted (Fryberg & Markus, 2007). The aim of this paper is therefore to uncover the cultural differences that exist among a diverse student body at an international university. For this assessment, we will start by describing a framework for the interpretation of cultural differences within academia and continue by presenting the results that were obtained within this framework. Furthermore, we will discuss how these findings have been applied in training and policy to improve the intercultural academic learning environment.

Contemporary assumptions about core aspects of learning in the Western world are at least partly rooted in intellectual traditions that relate back to the philosophers of ancient Greece, like Socrates, Plato and Aristotle. Often considered to be the father of Western philosophy, it is primarly the legacy left by Socrates (469 - 399 B.C.) that still penetrates our thinking on what the correct way is to pursue knowledge. Famed for his public displays of questioning authority figuresin Athens' markets, it is the 'Socratic dialogue' that is still considered to be the optimal way of establishing whether claims can be regarded as valid, or not. Doubt always functioned as a starting point in this pursuit and over time, the rules of formal logic were established as guiding principles in this process. The fact that a good part of Western education consists of teaching children how to generate arguments and counterarguments concerning any given position (Peng & Nisbett, 1999) attests to the value that is still associated to the philosophical tradition that originated in the time of Socrates.

Around the same time as ancient Greek philosophy flourished, an equally influential figure arose in a different cultural region of the world. For the East-Asian region, it is the legacy of Confucius (551 - 479 B.C.) that has left its traces in the way people in contemporary society think about the concept of learning. As a teacher, Confucius thought of learning as an effortful process, aimed at behavioral reform (Tweed & Lehman, 2002). Before one was thought to be eligible to question the words of authority figures, a strong emphasis was placed on studying the works that were left by these figures, which has led to an emphasis on respectful learning. For Confucius, learning was intrinsically related to the social domain. A pragmatic outcome was an important result that should come from learning. It was thought that valuable knowledge is the knowledge that would benefit society.

Recently, research has established that the influence of these two culturally distinct traditions that have shaped the concept of learning in both regions, can be defined as representative of a 'mind orientation' for people from the Western cultural region, and a 'virtue orientation' for contemporary students from East-Asia. In 2003, Li showed a cultural difference in the concepts that Chinese and European American students hold about learning. Her concepts of learning describe the purposes (e.g. what people think the goal of learning is), processes (e.g. which strategy one applies), personal regard (e.g. whether or not and why learning is important), affects (e.g. whether one experiences joy or dread from learning), and social perceptions (e.g. the perception of succesful learners vs. unsuccesful ones and perceptions of teachers). The beliefs people have about these elements of the learning process underlie the motivation, affect and preferences people exhibit for learning and learning-related behavior. Li concluded that, whereas equally elaborate, the

content of the conceptions of learning differ due to fundamental differences in the meanings the two cultures attach to learning (Li, 2003). This mind / virtue framework represents a new theory for the interpretation of cross-cultural variation in cultural differences in education. It reflects empirically constructed cultural beliefs about learning that exist in two different cultural groups today.

For the European American students, Li found that learning was primarily defined as 'the process by which individuals' minds acquire the knowledge that is out there' (Li, 2003). These students distinguished between a 'neutrally existing body of knowledge' that is out there for the individual to acquire and the abilities of the individual to acquire it. These abilities include intelligence and abilities on the one hand, and thinking, communicating and active engagement on the other. Learning was found to be an important part of the lives of the U.S. students, but it was not associated with emotional, spiritual or moral domains. As can be concluded, the Western view of learning focuses on cognitive aspects and can be conceptualized as "mind oriented".

For Chinese students, Li found that knowledge is regarded as something that is indispensable to one's personal life. For Chinese students, knowledge includes not only the externally existing knowledge, or the mental functions one needs to acquire it, but other dimensions of life such as the personal, social and moral are also an integral part of it. Diligence, self-exertion, endurance of hardship, perseverance, and concentration are of high value, which leads the concept of learning to include a strong moral and virtuous overtone. Li therefore termed the concept of learning for Chinese students as "virtue oriented".

Within the current research project, the mind / virtue theory formed the main theoretical background. For a correct understanding of the use of these cultural concepts in an applied setting, we would however like to stress that these concepts are not applied as mutually exclusive categories. Instead, students from all cultural regions can rate their agreement with statements reflecting either orientation. Additionally, these concepts are culture-level constructs. This implies that findings are found on the aggregated, cultural level and therefore can only be used to explain differences between cultural beliefs. For individuals however, culture is only one of the influences that one is exposed to. Cultural beliefs should therefore not be equated with the beliefs of individuals within both cultures. Finally, we use the categories of mind and virtue orientation in a rather pragmatic sense, assuming that the two concepts describe possible and distinct answers to questions around core aspects of learning that any learner or teacher explicitly or implicitly has to answer, irrespective of his or her cultural background (such as what is the goal of learning). When doing so, we aim at identifying existing differences in those learning beliefs of various cultural groups of students

(and faculty). The questions of where exactly these differences may come from and what role intellectual historic traditions within these cultures actually play can obviously not be answered by this approach.

Research project

International University

Located in northern Germany, Jacobs University Bremen is a private, highly selective, international university with students from 99 different nations. Although Jacobs charges tuition fees, students are accepted on a need-blind basis, where only merit and qualifications count, not the ability to pay. Jacobs is also a residential university, where students not only work together but also live together. Additionally, the primary language is English. These aspects make Jacobs University unique in Germany, where universities are typically public, state funded and non-residential.

Building on the conceptualizations of the mind and virtue orientations, learning beliefs were investigated on the Jacobs University campus.

Method

This study applied a quantitative design to measure the mind and virtue concepts. The project was carried out as one area of focus within a larger university wide online survey on intercultural needs[1]. The main research questions were concerned with measuring the academic and social satisfaction of the various groups on campus (undergraduate students, graduate students, administration, faculty, alumni and host families), as well as other potentially predicting factors such as classroom culture, intercultural competence and acculturation stress (see Ward et al, 2001; Bresler, 2002; Li, 2005; etc). Although the larger research project included qualitative interviews as well, the results that will be presented here are from the quantitative questionnaire that was designed for the purpose of this study. For this measurement, the concepts of mind and virtue orientation were translated into 12 items in total: 6 reflecting the mind orientation and 6 reflecting the virtue orientation. Participants rated their agreement on all statements on a 7-point scale.

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[1] Other, but related results from the same research project will be published in the forthcoming book chapter: Rossi, A., Kühnen, U., & van Egmond, M.C. (forthcoming). *The diversity of learning beliefs and its implications for globalizing universities.* In Maierhofer, R., Penz, H., & Kriebernegg, U. (Eds.). *Interculturality and Education.* Karl-Franzens Universität Graz.

Participants

Over all, the participation rate was rather high: 70 percent of undergraduate students (n = 477) and 83 percent of faculty (n = 87) participated. Although still one of the largest cultural groups, German students at Jacobs University only make up around 25 percent of the total student body. Several other nations are however represented by only a few students on campus. Therefore, cultural clusters were created for the analysis. This was done in two steps: First, we adopted the classification from the World Value Survey (WVS; e.g., Inglehart and Welzel 2005), a regularly conducted worldwide survey with representative samples from around the world. The following culture clusters were used: Ex-British Overseas, Western European, Catholic Eastern European, Orthodox Eastern European, Islamic Zone, Sub-Saharan Africa, and India. As a second step of analysis, students from Ex-British Overseas, Western European, Catholic Eastern European, and Orthodox Eastern European countries were categorized as sharing a Socratic cultural background and the remaining students were classified as non-Socratic.

Faculty at Jacobs University is predominantly Western. Even those who originate from other cultural regions have at least received important parts of their education, and thus their socialization concerning learning, in the West.

Results

Learning beliefs

Virtue orientation. Over all cultural groups, a significant cultural difference was found for the meaning of learning (F(7,354) = 6. 58; p<.001). For the virtue orientation, the results are illustrated in Figure 1. As reflected by the differences in the white bars in the graph, the students from cultural regions that were hypothesized as Socratic, score lower on the virtue orientation than the students who were theorized to be from non-Socratic regions (black bars). Additionally, faculty was found to endorse the virtue orientation the least out of all groups.
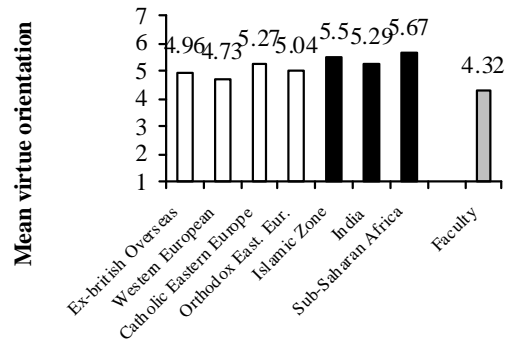
Cultural clusters

Figure 1. Mean virtue orientation for the cultural clusters of students and facutly.

Mind orientation. Applying a different question format, findings for the mind orientation indicate a cultural difference as well. Within this question format, questions were phrased differently for faculty and students. First of all, faculty was asked to rate how much they value certain mind oriented behaviors (e.g. displaying critical thinking, formulating own ideas, challenging the instructor with opposing views on content matters). Students were however asked to rate how easy it is for them to perform these types of behaviors. For these results, a significant cultural difference is found between the value that is given to this orientation by faculty and the rating of the ease experienced with which Non-Socratic students perform Mind oriented behaviors (t(351)=-2.36; p<.05). Faculty members, across all disciplines, value the mind orientation strongly, but students, especially from non-Socratic regions, indicate that it is difficult for them to follow these expectations. These results are illustrated in Figure 2.
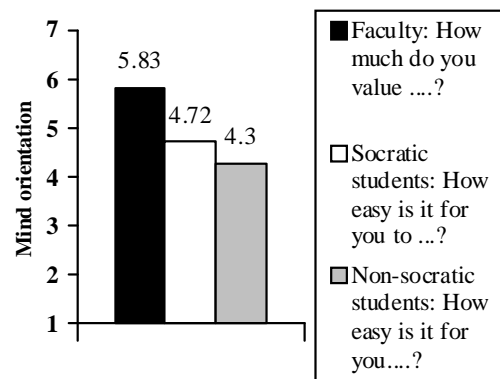
Figure 2. Ratings of the experienced ease with which students exhibit Mind oriented behaviors, and the degree to which faculty value these behaviors.

Explicitness

Since it was hypothesized that if students and faculty have different assumptions that underlie the learning process, based on culturally influenced meaning systems, they would have different expectations from not only each other, but also from the classroom environment, assessment criteria and valued behaviors. At the very least these assumptions would have to be explicit. A question was therefore included to ask about the explicitness that faculty claims they offer the students regarding the pedagogical expectations that they have in their teaching. To students, the question was asked how explicit they rate their professors to be on their pedagogical principles. As indicated in Figure 3, faculty rate themselves to be much more explicit than the students perceive them to be.
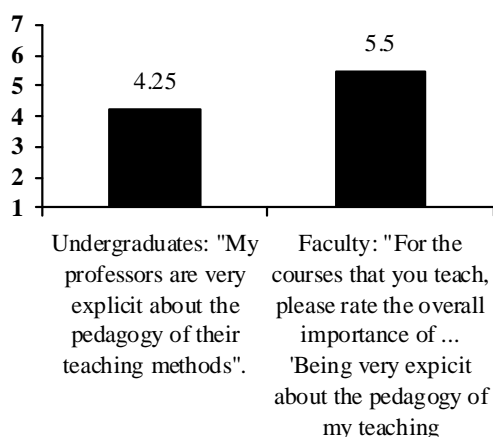
Figure 3. Rated explicitness about pedagogical principles, rated by undergraduate students and faculty themselves.

Perceived Needs for Intercultural Training

So far, our results have indicated that both on the part of the students and on the part of the faculty, cultural influences play a role in the classroom. The question whether people also see this themselves and perceive that either they or the other group could benefit from intercultural knowledge and skills to improve the learning environment, is still open. In the survey a question was therefore included asking participants to indicate in how far they see a need for different groups on campus to receive intercultural trainings. The results for faculty and students, as indicated in Figure 4, yield the following interesting picture. Students perceive a need for intercultural trainings for both themselves, but even more strongly for faculty. Faculty, however, perceive the overall need for intercultural training as lower then the students, and especially indicate that it is least important for themselves.
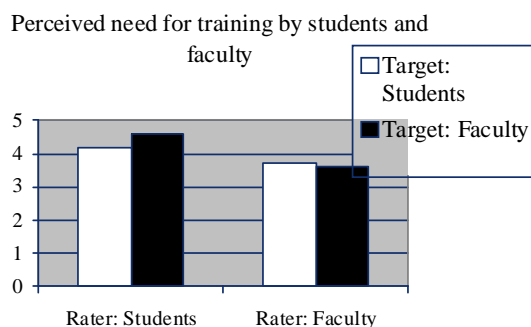
Figure 4. Perceived need for intercultural training, as indicated by both students and faculty for own and other group.

Discussion

The reported findings show that students from different cultural regions and Western-trained faculty differ substantially in the beliefs that they hold about learning, as identified within the mind / virtue theory. Whereas faculty members do not endorse the virtue orientation very strongly, they do value the mind orientation and its associated behaviors. Secondly, students from Socratic regions were found to score lower on the virtue orientation than their non-Socratic counterparts. Thirdly, a significant discrepancy was identified in the degree to which faculty thinks that they are explicit about the pedagogical principles that their expectations are based on, and the degree to which students perceive this explicitness. Lastly, students identified a need for intercultural trainings, not only for themselves but also for their professors. Faculty however does not perceive this need.

These findings lead to the conclusion that the likelihood of misunderstandings or even conflicts that may occur in the daily business of teaching and learning in an international academic environment is high. In order to help prevent possible conflicts, the findings of this research have led to changes in the intercultural policy of Jacobs University and have been incorporated in trainings and used to inform different groups on campus. The implications of these findings will be described in more detail in the following section.

Implications

With culture being an integral part of everyday life at an international university, Jacobs University has applied the findings from the research project in several ways. Developments in this regard are however still underway and the initiatives presented here are mere examples of the various actions that have been taken. Also, we recognize that the

awareness of the influence of cultural factors in the underlying meaning systems of learning is still a relatively new issue to be addressed in the university setting. Therefore there are still challenges to be faced regarding the fact that these factors are of importance, regardless of one's academic discipline.

Recently, several initiatives have been started to raise the awareness of students for the importance of culture in education and to prepare them for what they might encounter within the multicultural environment of Jacobs University. Some of these initiatives already begin before students arrive at our institution and are intended to raise awareness of prospective students for differences (and similarities) that may exist between their own and others' classroom culture expectations, like those described in this paper. We hope that by doing so we will facilitate the adjustment of our international students. Furthermore, Jacobs University has sent alumni and current students to countries where large portions of the incoming student community originate from, in order to give awareness trainings to prospective students while they are still living in their home country.

Another very successful initiative are the intercultural peer trainings held for all incoming students during their "Orientation Week", i.e., the week before the semester actually starts in which new students are introduced to the faculty and administration, are helped to settle in and deal with bureaucracy as well as to integrate them into the Jacobs community. These yearly trainings are given by upperclassmen as peer trainers. The content covers a variety of aspects of living in a diverse community such what is culture, interpersonal and academic challenges, including a focus on classroom culture, as well as stereotyping, language and communication issues.

As suggested by our findings, faculty also needs to be prepared to deal with the cultural diversity in expectations and behavioral tendencies in classroom settings, but this seems to be a more difficult task. Professors do not only hold mind oriented values in higher esteem than students, but also expected students to engage in the respective types of behaviors, such as actively participating in class and challenging professors on content matters. These findings (including the students' perceived need for faculty trainings) have been presented to faculty in specially arranged meetings. Nevertheless it has proven difficult to raise awareness in faculty that the classroom is not only influenced by the cultural background and values of the students but also the professors themselves. One of the remaing tasks for the future is to design and conduct interventions for faculty that may help them to practically deal with teaching a multicultural student body. This includes issues related to communication, explicitness, language, feedback, culturally fair grading as well as the breaking of stereotypes regarding expectations of students based on their cultural background. In a first step, we invited faculty and staff from German, British, US and Dutch universities to Jacobs University campus for a one day workshop discussing the topic: Developing Intercultural Competence for Faculty. In the workshop, four major themes of raising awareness, developing content, implementing initiatives and assessing outcomes framed the resulting discussion. Additionally, participants shared best practices through the submission of abstracts that were gathered together in one volume and given to each person as a resource. Recordings and results of each session are being compiled on a website in order to continue the discussion.

In this paper we tried to convey that research is essential in order to identify the core challenges for a university that has to deal with an exceptionally culturally diverse student body. We regard the differences in meaning that is attached to several core aspects of learning outlined above as one of the central issues in this regard. Rather than thinking of the classroom as either a culturally free place or not addressing culture altogether, the issue of interculturality should be approached explicity, if a university truly aims to become international and intercultural. Without an encompassing, well researched and detailed plan of action, international students will continue to face the challenges of studying abroad without the proper support, faculty will struggle with questions such as culture fair grading and diversification of their curriculum, while university staff will continue to be overburdened by questions, problems and miscommunication issues, even while universities increasingly tout their global vision. If, on the other hand, the special challenges of interculturality are identified and if actions are taken to face these challenges, the likelihood of possible misunderstandings are reduced, presumably leading to higher academic life satisfaction and ultimately better performance. If that is the case, the potentials of cultural diversity as a crucial learning source that is increasingly important in an ever more globalized world, can be more fully tapped.

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Biographies

Marieke van Egmond is currently pursuing her PhD at the Bremen International Graduate School of Social Sciences (BIGSSS), located at Jacobs University Bremen. With a MSc. in Cultural Psychology from Radboud University Nijmegen in the Netherlands, her current research interests concern cross-cultural issues in (educational) psychology and the social-cognitive domain.

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Ulrich Kühnen received his PhD in Psychology from Berlin University of Technology in 1998, and his Habilitation from the University of Mannheim in 2003. Since 2003, Kühnen is a Professor of Psychology at Jacobs University. His research interests include cross-cultural psychology, the self-concept, stereotyping and the role of meta-cognition in judgment formation. Furthermore, Kühnen is Chair of the thematic field "Attitude Formation, Value change and Intercultural Communication" within the Bremen International Graduate School of Social Sciences.