CULTURAL DIVERSITY: IMPACT ON THE DOCTORAL CANDIDATE-SUPERVISOR RELATIONSHIP

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ABSTRACT

A number of aspects influencing the relationship between the doctoral candidate and the supervisor have been identified as impacting on the success of postgraduate research supervision, but the influence of the cultural diversity of doctoral candidates and supervisors on this relationship has not been addressed. Australian universities attract a large percentage of international doctoral candidates and many of these candidates relocate to Australia for the duration of their candidature and have to face the challenges of settling temporarily in a foreign country and working closely with a supervisor from a different cultural background. Through a comparative case study approach, this exploratory study investigated the influence of cultural dimensions on the doctoral candidate-supervisor relationship. Qualitative data obtained through interviews with six cases from various cultural clusters were analysed and compared based on four dimensions of national culture values (Hofstede, 2001). The findings suggest that cultural diversity impacts significantly on the social environment of doctoral candidates, but there is no significant impact on the supervisory relationship due to the acculturation of postgraduate students into the university culture. Cultural diversity is identified as a potential factor influencing the doctoral candidate–supervisor relationship and this study suggests the development of measures to ensure that cultural misunderstandings in the supervisory relationship are avoided.

Key words: Cross-cultural misunderstanding, cultural diversity, doctoral candidate-supervisor relationship, Hofstede, university culture.

INTRODUCTION

The success of postgraduate research supervision is linked to the completion of research degree programs. Research indicates several aspects influencing the successful completion of postgraduate research (Latona & Browne 2001; Tennant & Roberts 2007) and a key aspect is the relationship between the doctoral candidate and the supervisor. Although a number of aspects influencing this relationship have been identified, the influence of the cultural diversity of doctoral candidates and their supervisors on this relationship has not been fully explored.

Australian universities attract a large percentage of international doctoral candidates and many of these candidates relocate to Australia for the duration of their candidature. During this period of time, the doctoral candidates, often joined by their families, have to face the

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challenges of settling temporarily in a foreign country and working closely with a supervisor from a different cultural background. This may have a detrimental effect on the relationship between the doctoral candidate and the supervisor as researchers have found that cross-cultural misunderstanding is a much underestimated cause of problems (Hofstede, Pedersen & Hofstede 2002). National culture and its effect on how people think and act has been thoroughly explored across disciplines and settings (Hofstede & Hofstede 2005). Hofstede (1980) developed four dimensions of culture for investigating the national cultures of individuals.

This exploratory study focuses on investigating the impact of national culture on the relationship of individuals involved in doctoral supervision—the candidate and the supervisor. The national cultures of these individuals are investigated according to cultural value dimensions (Hofstede 2001). Through a comparative case study approach the cultural values of doctoral students of four clusters of countries are investigated.

LITERATURE REVIEW
Factors related to the completion of research higher degrees
Three broad types of factors associated with the completion of research higher degrees include (1) the institutional/environmental milieu; (2) student cohorts and characteristics; and (3) individual supervisory arrangements (Latona & Browne 2001; Tennant & Roberts 2007; van Rensburg & Danaher 2009). The institutional/environmental milieu entails issues such as the disciplinary differences between academic faculties and the vital importance of a sense of belonging to a research group or cluster. The second factor, student cohorts and characteristics, include factors related to entry qualifications, mode of study (part-time or full-time), the financial situation of the candidate and the psychological make-up of the candidate (Tennant & Roberts 2007). Sheridan and Pyke (1994) find that the increased funding of doctoral students through part-time teaching assistant positions decreases the duration of candidature. Gender differences in the completion time of doctoral candidates were investigated and Seagram, Gould and Pyke (1998) report that although it does not take women longer than men to complete their candidature, women indicate significantly lower levels of satisfaction with their supervisors and their graduate school experiences overall.

The success of the supervisory relationship also depends on the coping strategies and resilience of the candidate (Acker, Hill & Black 1994). Not only the coping strategies, but also other psychological aspects of the candidate, such as specific moods during particular stages of the candidature, have a significant impact on the completion of candidature.

Individual supervisory arrangements are included as a third broad type of factor. This pertains to the quality of the relationship between candidate and supervisor, frequency of supervisory meetings and timeliness of feedback from supervisors (Tennant & Roberts 2007, 21). Albertyn, Kapp and Bitzer (2008) argue that personal attributes, support from supervisors and institutional support contribute to the successful completion of research higher degrees. Latona and Browne (2001) indicate other factors that impact on the successful completion of higher degrees studies. These include specific protocols of supervisions that entail the scheduling of regular contact between candidate and supervisor, continuation with the original topic and supervisor, and also issues related to the relationship between candidate and supervisor (Latona & Browne 2001). A range of relationship related factors have been investigated; for example, power issues, collegiality and the prevalence of negotiated relationships (Erwee & Albion 2011; Latona & Browne 2001; van Rensburg &

Danaher 2009). Although a variety of factors of the supervisory relationship has been extensively explored, there is paucity in data about the influence of diverse national cultures on the doctoral candidate–supervisor relationship.

The supervisory relationship
Various studies focus on the supervisory relationship with regard to satisfaction with aspects of supervision (Heath 2002), skill development, intellectual climate, infrastructure, thesis examination, goals and expectations, overall satisfaction (Ainley 2001) and supervisor selection (Ives & Rowley 2005). Nulty, Kiley and Meyers (2009) provide a framework for promoting excellence in supervision by identifying organisational elements required for such excellence and presenting a method of reporting supervisory excellence. Another study finds that expanding the dualistic supervisory relationship to include communities of practices that involve the candidate, supervisor, cohorts and online communities contributes to success (Wisker, Robinson & Shacham 2007). Several studies find a strong link between satisfaction with supervision and progress of candidates with subsequent completion rates (Dann 2008; Ives & Rowley 2005; Manathunga 2005; McCormack 2004; Sinclair 2004) and this indicates that a productive relationship between doctoral candidate and supervisor is vital to ensure success in postgraduate studies.

A major problem identified in the supervisory relationship between candidate and supervisor is communication (Buttery, Richter & Filho 2005; Watts 2008). The frequency of contact, the quality of communication and the effectiveness of communication between candidate and supervisor are of vital importance. One of the issues that impact on communication is national culture. If the candidate and the supervisor are from different cultures, cross-cultural misunderstandings may occur that can have a significant impact on understanding between the candidate and the supervisor and, consequently, a negative impact on doctoral completion. It is, therefore, necessary to explore national culture as an aspect impacting on the supervisory relationship.

Cultural dimensions
Culture is defined as 'the collective programming of the mind which distinguishes the members of one human group from the other...[and] includes systems of values; and values are among the building blocks of culture' (Hofstede 2001, 25). National culture refers to groups of people in specific geographical areas who pursue the same set of rules with regard to family patterns, role differentiation, social stratification, education, socialisation, religion, political structure, legislation and architecture (Hofstede 2001, 27). To enable comparison among various nations, these variables are classified into dimensions. Hofstede (2001) identifies four dimensions: power distance, uncertainty avoidance, individualism-collectivism, and masculinity–femininity.

Power distance refers to the acceptance of inequality in terms of authority, wealth, status and privilege (Hofstede 2001). High scores in power distance reflect nations with an endorsement of respect and compliance as fundamental values, without questioning the natural order of things, whereas low scoring nations adhere to egalitarianism and informality (Draguns 2007). With regard to the supervisory relationship, low power distance norms include statements such as:

> *"Hierarchy means an inequality of roles, established for convenience";
> "Subordinates are people like me"; "All should have equal rights"* (Hofstede 2001,
> 122).

High power distance norms include statements such as:

> *"Hierarchy means existential inequality"; "Superiors consider subordinates as being
> of a different kind"; "Powerholders are entitled to privileges"* (Hofstede 2001, 122).

Uncertainty avoidance refers to the avoidance of unstructured situations and contexts where people require structured frameworks (Hofstede 2001). People high in uncertainty avoidance require clarity about rules and regulations and guidance to behaviour. These are found in tradition, formal procedures and ceremonies. Low uncertainty avoidance scores are applicable to people who thrive on ambiguity, creativeness and the unknown (Draguns 2007). With regard to the supervisory relationship, low uncertainty avoidance norms include statements such as:

> *"Conflict and competition can be contained on the level of fair play and used
> constructively"; "Achievement determined in terms of recognition"; "There should
> be as few rules as possible"* (Hofstede 2001, 122).

High uncertainty avoidance norms include statements such as:

> *"Conflict and competition can unleash aggression and should therefore be avoided";
> "Strong need for consensus"; "Need for written rules and regulations"* (Hofstede
> 2001, 122).

Individualism refers to the relationship between the individual and the collectivity—the society. Individuality is viewed as a bipolar dimension and a low score on individualism means a higher score on collectivism. Individualism represents societies in which individual achievements and aspirations are dominant and social ties are weak (Draguns 2007). Collectivistic societies view personal goals and achievements as subordinate to those of larger entities and individuals are integrated into families, society and the nation (Draguns 2007). With regard to the supervisory relationship, low individualism (collectivism) norms include statements such as:

> *"Emphasis on belonging to organization, membership is ideal"; "Expertise, order,
> duty, security provided by organization or clan"; "Emotional dependence of
> individual on organizations and institutions"* (Hofstede 2001, 235).

Individualism norms include statements such as:

> *"Emphasis on individual initiative and achievement; leadership ideal"; "Autonomy,
> variety, pleasure, individual financial security"; "Emotional independence of
> individual from organizations or institutions"* (Hofstede 2001, 235).

Masculinity–femininity refers to the allocation of emotional roles to specific genders. Masculine norm countries clearly differentiate between male and female roles, while

feminine norm countries present an overlap in these roles (Draguns 2007). Hofstede (1998, 6-7) defines masculinity and femininity in society as:

> "*Masculinity stands for a society in which men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender and concerned with the quality of life. The opposite pole, Femininity, stands for a society in which both men and women are supposed to be modest, tender, and concerned with the quality of life*" (Hofstede 1991, 261-262).

With regard to the supervisory relationship, femininity norms include statements such as:

> "*People orientation*"; "*Levelling: don't try to be better than others*"; "*Men need not be assertive but can also take caring roles*"; "*Differences in sex roles should not mean differences in power*"; and "*Unisex and androgyny ideal*" (Hofstede 2001, 294).

Masculinity norms include statements such as:

> "*Money and things orientation*"; "*Excelling: try to be the best*"; "*Men should behave assertively and women should care*"; "*Men should dominate in all settings*"; and "*Machismo (ostentatious manliness) ideal*" (Hofstede 2001, 294).

The research question for this study is:

> **Do the national cultural norms of doctoral candidates influence the success of their relationships with their supervisors?**

METHOD

A case study approach was followed in this study and data were obtained through in-depth interviews with six on-campus doctoral candidates from a large regional university in Queensland, Australia. According to Yin (2009), a case can be an individual as the unit of analysis depends on the primary research question. In the selection of suitable cases for this study, the method of clustering of nations (Ashkanasy 2004) that is based on the results of the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) 61-nation study of culture and leadership (Chhokar, Brodbeck & House 2007); was applied. Based on the principles of convenience sampling appropriate for exploratory studies (Yin 2009), the following participants were selected for this study:

CLUSTER NUMBER	CLUSTER	PARTICIPANT'S NATIONALITY
1	Anglo Cluster	South Africa
2	Middle East Cluster	Libya
3	Southern Asia Cluster	Pakistan and Indonesia
4	Confucian Asia Cluster	China
5	Sub-Saharan Africa Cluster	Namibia

All the participants were enrolled for at least one year in the doctoral program. Three male and three female participants were included. The supervisors of all of the participants were Australian citizens in full-time and ongoing positions at the regional university.

The study applied the in-depth responsive interviewing method to obtain data. In-depth semi-structured interviewing is an appropriate method for this study as this technique entails 'an interest in understanding the lived experience of other people and the meaning they make of that experience' (Seidman 1998, 9). The goal of the in-depth responsive interview is to 'generate depth of understanding rather than breadth' (Rubin & Rubin 2005, 30). The interviews commenced with a general discussion about the national cultures of the participants in relation to the cultural dimensions as identified by Hofstede (2001). The participants were asked to compare their national cultural values with the cultural values of Australia. Participants were then asked to evaluate the impact that the cultural value differences may have on their particular supervisory relationship. Finally, participants were asked to identify the most significant issues related to diverse cultural values that affected their supervisory relationships.

The interviews were transcribed and analysed by the group of researchers for themes and concepts. The aim of this initial analysis was to find links with Hofstede's (2001) cultural dimensions. The links were further analysed and related to theory to provide explanations of the results.

RESULTS

Power distance: The participant from Cluster 3 rated the power distance of their national cultures as high:

> *There is a lot of respect for authority, especially for the people in the bureaucracy, and they maintain this status and they show this authority with their big offices and desks and drivers taking them where they need to go…,showing that "I am something and I have the power"…* (Pakistan interviewee)

With regard to the supervisory situation of the participant from Cluster 3, high power distance between student and supervisor exists and the supervisor is viewed as the expert providing direct and specific instructions to students:

> *The supervisor–student relationship is like a father-son relationship—the father looking after the child… if the student does not follow the advice of the supervisor, he may get a problem! The student must listen to the supervisor and do as he says.* (Indonesian interviewee)

The participants from Clusters 2, 4 and 5 indicated a differentiation between regional/traditional and urban/modern values with regard to power distance. They described their regional areas as closely related to more traditional values where power distance is high. By contrast, the urban metropolitan areas display modern and more international values where power distance is much lower. Power distance is also linked to educational level where power distance is much higher in low educational levels than in the more developed, highly educated circles. With regard to the situation at universities, participants explained that universities are located mostly in the urban areas and attract modern and highly developed people. In this environment, the power distance is low:

> *It depends on the background of the people. Those who are educated went through schooling that is based on the English system and our universities also follow this system....There is not much of a power distance in our universities; it is much like what it is here [Australia].* (Namibian interviewee).

The participant from Cluster 1 rated the power distance of the general society as medium to high because of the multicultural demography of the country. For the supervisory situation, however, the power distance was rated as high in comparison to the Australian context:

> *...more formal than here [Australia]....I don't think I would have addressed my supervisor on his first name there [South Africa] and the titles of university staff seem quite important at South African universities.* (South African interviewee).

Uncertainty avoidance: The participants from Clusters 2, 3 and 4 generally rated their national values related to uncertainty avoidance as high. Participants from these countries perceived a low tolerance for uncertainty in their countries. In these countries, people tend to cope better with formal structures, rules, regulations and procedures. They prefer to maintain the status quo and honour nationalism, conservatism, religious customs and rituals. With regard to the implications for the supervisory relationship in those countries, this relationship is characterised by direct and clear rules and regulations for doctoral research. For example:

> *When you do a PhD in Indonesia, you get a nine step plan that tells you exactly what you have to do. Every step is specific and if the student follows those nine steps—no problem, he will complete the course but if he tries to do his own thing that's when he gets into trouble.* (Indonesian interviewee)

The participant from Cluster 5 again linked the level of uncertainty avoidance to rural/traditional and urban/modern aspects of the people. Traditional people living in the rural areas have a low tolerance for uncertainty and are therefore high on uncertainty avoidance, and traditional rituals, customs and ways of living are preferred. On the other hand, people living in the metropolitan areas are more tolerant towards the changing world and display low uncertainty avoidance. This is visible in the university context where universities are mostly in the metropolitan areas and more exposed to external changes:

> *For the students coming from rural areas it is difficult to adapt to the life in city universities. They may be experiencing high levels of uncertainty avoidance. For other students being on campus for a number of years, they learn quickly to adjust to the university life and I think they will have lower levels of uncertainty avoidance because that is just part of life for them.* (Namibian interviewee).

Because of the significant political changes that South Africans had to deal with over the last two decades, Participant from Cluster 1 indicated a low level of uncertainty avoidance for this country. Adapting to continuous changes is part of life in South Africa and people had little control over the changes—it had to be accepted as part of their culture. With regard to uncertainty avoidance in South African universities, the interviewee indicated medium levels due to the nature of university studies where new knowledge is continuously being sought and a tolerance for changes is accepted:

> *I would say that universities are at large more unaffected by uncertainty avoidance, although there is a degree of it [uncertainty avoidance] when new students enrol for a course, especially if it is a foreign university.* (South African participant)

Individualism: The participants from Clusters 2, 3 and 4 indicated that their national cultures were low on individualism and leaned more towards collectivism. Everyone works together for the betterment and advantage of family and societal units. Sending one member of the group to university is also viewed as a measure to advance the social group—it is expected that this person achieve the educational qualification and return to the social group to provide the benefit to the group in terms of income or skills attained. Often the university fees are paid by the social group. Students from a traditional background can sometimes find it difficult to adjust to the individualistic approach followed at universities:

> *It is just so hard to come here [university] and suddenly you are all on your own and expected to work on your own and create your own ideas about things. This is not what Chinese do. When I started my university studies I really struggled at first to learn how to do this and felt very isolated.* (Chinese interviewee)

The participant from Cluster 5 again noted the difference between traditional/rural people and modern/urban people. He indicated that the traditional/rural people are more collectivistic, but the modern/urban people are more individualistic. He further argued that, because doctoral students already spent many years at university and completed other undergraduate and postgraduate courses at their universities that are based on the English system, they are accustomed to the individual approach followed at university and do not have difficulties with this aspect.

The participant from Cluster 1 indicated a national culture of individualism that applies to the urban and modern society and a more collectivistic culture for rural, traditional society. The individualistic culture also applies to the university environment in South Africa and this is similar to his experiences at Australian universities:

> *The same principles apply here as in South African universities; if you work hard on your own you can expect certain rewards, and whatever you achieve it is testimony of the effort you put into your studies. The lecturers and supervisors are your guides to help you achieve what you set out to do but at the end it is all up to you.* (South African interviewee).

Masculinity: The participants from all clusters except Custer 1 rated their own national cultures as masculine. Masculine cultures were described as societies that have specific gender role expectations where men are viewed as the family protector and responsible for providing for the financial needs of the family. The women are the carers, taking care of the children and home and being responsible for feeding and clothing the family:

> *In my country, women are expected to care for the home and the children and they have to dress like women and behave like women….Here [Australia] the women are driving the cars and they work in all jobs and they wear pants— this is not allowed in my country.* (Pakistani interviewee)

> *Women do go out to work in my country, but they do specific jobs such as teachers; they prepare food for restaurants and do the cleaning of buildings. But they must first do their jobs at home where they take care of the kids, clean the house and prepare the meals.* (Indonesian interviewee)

These interviewees viewed the situation in Australia as quite different; they perceived an integration of roles and responsibilities between men and women and classified the Australian society as 'feminine'. With regard to the situation at universities, they indicated that, at their national universities, the cultures were much less masculine and students were accustomed to females in the traditional male roles. This seems to be similar to the situation at Australian universities where, in their opinion, the culture is less masculine on the scale between masculinity and femininity.

The South African interviewee indicated that the general modern society in South Africa displays more of a feminine culture where both males and females are expected to be less assertive and less aggressive in pursuing individual goals and to take on a more nurturing role. He pointed out that the same culture is evident in the university environment in South Africa, but commented that he perceived Australian universities to be much higher in femininity than South African universities:

> *Over here [Australia] the women seem to be self-assured and quite important in the university community and, for that matter, in the country...Queensland's female premier, Australia's female prime minister, senior female staff and Chancellor at the university...The role of the traditional male leader or manager—aggressive and competitive—has been replaced by something more feminine and nurturing and both genders are supposed to follow this approach* (South African interviewee).

Other issues
The practical implications of religion were noted as an important issue for participants from Clusters 2, 3 and 4. These interviewees commented that practising their religion impacts on the foods they are allowed to eat, alcohol consumption, prayer times and honouring religious holidays:

> *My religion does not allow the consumption of alcohol or pork and when I go out with my supervisor or fellow PhD students to celebrate for instance the acceptance of my proposal, alcohol and pork meat is often served and I feel bad to say that I can't have that.* (Indonesian interviewee)

> *In my country we do not eat beef and when you are invited for a barbeque here the only meat that they serve is beef. It is difficult for me to refuse the food if it is offered to me and that is why I avoid all these parties that my supervisor expects me to attend.* (Libyan interviewee)

> *Our Chinese New Year is end of January and that is when I would like to take my break and not in December when my supervisor takes his break!* (Chinese interviewee)

Other issues mentioned relate to religion and national customs and include the way that women dress, how women greet men and the appropriateness of eye contact between a superior and a subordinate. To give an example: when the male Libyan interviewee arrived to commence the interview, the female researcher/interviewer greeted him with a handshake. Later during the interview he commented:

> *In my culture women never shake hands with men; it is seen as very bad taste. You should not do this again if you interview other Libyan men!* (Libyan interviewee).

DISCUSSION
Overall the results show that, according to the four dimensions of national culture, the national cultural values in the social environments of the various clusters/nations do differ. Participants from the South Asia cluster perceive power distance as high in their countries and also in the university environment. By contrast, participants from the Confucian Asia, Middle East and Sub-Saharan clusters rate power distance as high in the rural/traditional areas and low in the metropolitan areas—and the university environments are also viewed as low in power distance. Participants from these clusters also indicate high levels of uncertainty avoidance and low levels of individualism and this applies to the university environments too. Participants from the Sub-Saharan and Anglo clusters show low levels of uncertainty avoidance and high levels of individualism. For the masculinity dimension, participants from all clusters except for the Anglo cluster indicate high levels of masculinity.

Rural/traditional cultures versus urban/modern cultures
The results highlighted an unexpected issue—the differences between the rural/traditional cultures and the urban/modern cultures in general. The participants from Clusters 2, 3, 4 and 5 (Middle East, South Asia, Confucian Asia and Sub-Sahara) suggested a difference between the rural/traditional and urban/modern residents of their home countries in terms of all four dimensions. The participants' perceptions of the *rural/traditional* inhabitants of their countries coincide with Hofstede's results, but are in contrast to their views about the cultural dimensions of modern people living in the metropolitan area. One possible explanation of this finding is that Hofstede's original research dates back to the 1970s and that the last 30 to 40 years have been characterised by high levels of urbanisation that may have impacted also on cultural values. However, this is an important issue that needs further investigation in a follow-up study.

Cultural clusters
It is clear that the degree of impact of cultural diversity and its impact on the doctoral candidate–supervisor relationship depends on the cultural cluster that the doctoral candidate originates from. This study shows that participants from the Confucian Asia, Middle East and South Asia clusters have different national cultural values from those of the Anglo and Sub-Saharan clusters with regard to power distance, uncertainty avoidance and individualism. This can potentially have an impact on the doctoral candidate–supervisor relationship. Other factors that participants identified as having an impact are related to religion. Once again, this appears to be a factor in participants from three clusters: Confucian Asia, Middle East and South Asia.   Religions practised in these clusters include Hinduism, Islam and Buddhism. These religions have specific guidelines about lifestyles, moralities, ethics and religious laws and these influence their participation in social activities in western societies. Although religion does not appear to have a direct influence on the supervisory relationship, it has an impact on the socialisation of the doctoral candidates.

University culture
Another aspect that emerged is the moderating effect of a university culture on diversity in the supervisory relationship through candidates' prior exposure to university cultures in their undergraduate studies. Participants in this study view the university environment as slightly different from the local society in terms of cultural values because of the international character of universities in general. The University of Southern Queensland's Learning Centre (2009) defines a 'university culture' as a culture that is characterised by members seeking knowledge through critical thinking and exhaustive inquiry; this is achieved through openness and a tolerance for different ideas, viewpoints and cultures. The university culture is characterised by active interaction, dialogue and engagement between university staff and students to create a creative and productive academic environment. The university culture advocates academic freedom that is described as: '…academics should be allowed to pursue scholarly activities without fear of reprisal and without direction from authority' (University of Southern Queensland, 2009). The internal culture of universities is required to facilitate the internationalization process of universities to ensure a response to rapidly changing global environmental demands (Bartell, 2003). The doctoral candidates in this study achieved undergraduate degrees and have been exposed to the university culture at either local universities or universities in the Anglo cluster. When they enrolled for doctoral programs, they were accustomed to the university culture even if it differed from their national cultural values. This appears to alleviate the impact of cultural diversity on the supervisory relationship. The results of a study about cultural influence on Malay adult learners seem to agree with this finding. Ahmad and Faizah (2010) investigated cultural influence on self-directed learning (SDL) and their results show that culture does not have a strong influence on SDL. However, the results of Ahmad and Faizah's study further indicate that cultural diversity does have an impact on individuals within the *social* environment. There appears to be a difference between the cultural impact on the *social* environment and the *learning* environment (university culture). It is suggested that the issue of a universal 'university culture' and its relevance to the supervisory relationship is further explored in a follow-up study.

Although this study finds no significant influence of the national cultural norms of doctoral candidates on their relationships with their supervisors, the findings on cultural dimensions can help supervisors to design and undertake interventions to avoid misunderstandings related to cultural diversity. These interventions relate to supervision practice in support of students from diverse cultures and address communication, planning and empathy (Watts 2008), developing self-help groups among students from diverse cultures (Wisker, Robinson & Shacham 2007) and understanding the emotional and psychological problems related to cultural diversity (Buttery, Richter & Filho 2005).

CONCLUSION
This exploratory study does not find a strong influence of cultural diversity on the doctoral candidate–supervisor relationship despite contrasting findings with regard to the impact of cultural dimensions on the social environment of the clusters investigated. It was demonstrated through the application of Hofstede's (2001) national cultural value dimensions that doctoral candidates from various cultural clusters have different cultural perspectives about the dimensions, but they share similar views about the university culture. However, even without evidence of a significant impact of national cultural diversity on the supervisory relationship, this study draws attention to cultural diversity as a potential factor influencing the doctoral candidate–-supervisor relationship. The findings of the present study suggest

that cultural diversity affects the social environment of individuals and may have a secondary effect on doctoral candidates' progress and successful completion, thereby highlighting the potential significance of cultural misunderstandings in the supervisory relationship. This should be addressed in supervisory practices and interventions to ensure that cultural misunderstandings between doctoral candidates and their supervisors are avoided. It may also be sensible to involve the families of foreign candidates in interventions to create a better understanding of the cultural values and expectations of the Australian culture. In the end it is a matter of understanding between doctoral candidate and supervisor, building better communication between the parties and working towards a healthy and productive relationship.

IMPLICATIONS FOR FUTURE RESEARCH

This paper explored the impact of national culture of doctoral candidates on the supervisory relationship and contributes by identifying specific issues that need further in-depth investigation. These issues include the differences between the rural/traditional cultures and the urban/modern cultures and its impact on the supervisory relationship; the impact of diverse religions on the supervisory relationship; and the moderating effect of a universal 'university culture' on cultural diversity in the supervisory relationship. This study's broad investigation into each of these issues may be viewed as a limitation, but should be considered as providing opportunities for future research. Investigation of these issues might include comparing international students and domestic students and their supervisors, larger sample sizes, and in-depth interviews about the lived experiences of students and supervisors. Other topics of interest that could be investigated include the significance of cultural misunderstandings and the role of doctoral candidates' families in the supervisory relationship.

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