University students’ intercultural interactions and attitudes: A person-in-multiple-contexts perspective

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I declare that this dissertation is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary institution.
ABSTRACT

This research explores the significance of context in university students’ experiences of intercultural interactions on- and off-campus, and attitudes towards culturally mixed learning activities. An original aspect is the adoption of a multi-layered and multiple context approach grounded in a “person-in-context” perspective (Volet, 2001; Pintrich, 2000). Inspired by central tenets from ecological psychology and activity theory, the research furthermore acknowledges the interdependence between individuals and their environment (e.g., Gibson, 1979/1986; Greeno, 1998). It construes individuals as located within multiple activity systems (Engeström, 2001) between which they move and participate, and which co-shape their intercultural interactions and attitudes.

The empirical component of the research emerged from the overwhelming evidence of minimal interactions and poor attitudes towards mixing between culturally diverse peers at universities in English-speaking countries. A review of the extant literature, however, revealed major limitations in the research designs and methodologies. Investigations of students’ intercultural experiences and perceptions of culturally mixed group learning activities typically used only one sample from a single context, a single point of data collection, and self-report data, either a questionnaire or interview. On the assumption that students participate simultaneously in multiple social contexts, it was argued that such methodologies have limited potential to reveal the complex, interdependent, and context-sensitive nature of intercultural experiences and attitudes. A particular aim of the present research was to address the lack of systematic investigations of the social context to explain paucity of intercultural interactions and poor attitudes to mixing on multicultural campuses. This implied conceptualising intercultural experiences and interactions as multi-dimensional
and contextualised, adopting multi-layered and multiple context research designs, and carrying out empirical studies that combined quantitative methodologies for the identification of meaningful patterns, and qualitative methodologies for gaining experiential insight into these complex, social phenomena.

The findings revealed significant and powerful contextual affordances and constraints at multiple levels of the immediate (learning) environment for students’ experiences of culturally diverse group work and interactions. Contingent to a combination of contextual elements, students’ intercultural experiences were perceived and emerged differently within and across distinct social contexts. More specifically, cohort characteristics, language competency and level of academic standard were identified as salient facilitating or inhibiting factors for positive peer interactions and group management. One unexpected finding was that the culturally similar and close peer group seemed to represent an important social context that played a vital role in students’ openness and willingness to engage in interactions with peers from different backgrounds. The emotional risk of peer group disapproval when stepping out of the in-group to interact with ‘others’ was linked to fear of jeopardizing existing group memberships. These issues have been overlooked in prior research on intercultural interactions and have potential for contributing to a better understanding of the multi-faceted and interdependent nature of intercultural activities.

The research concludes by stressing the crucial role of the social context in co-shaping students’ intercultural experiences, and development of cognitions and attitudes. It is argued that the identification of patterns in students’ attitudes and experiences of interactions with peers from different cultural-educational backgrounds has to be interpreted in relation to the
immediate, social environment, and the specific contextual affordances and constraints within which interactions occur. In that regard, stable and narrow conceptualisations of the construct of intercultural interactions appear incompatible with the complex, interdependent and situation-specific nature of students’ intercultural activities on multicultural campuses.
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REVIEW CHAPTER
1. INTRODUCTION

1.1 Background to this research

Processes of globalisation and internationalisation are generating societies worldwide that are, or are progressively becoming more socially and culturally diverse. As a result, issues related to the culturally mixed population in many countries have received substantial consideration in contemporary public and political discussions and have also become major subjects in academic circles across disciplines i.e. philosophy, political science, sociology, psychology and education. Relevant to the current research are issues related to the internationalisation of university student bodies and herewith associated implications for social cohesion on campuses and, ultimately, strategies to promote intercultural contact (e.g., collaborative learning activities). Each of these aspects will be addressed in turn in the following sections.

Internationalisation of university student bodies and social cohesion. One area that is particularly affected by, concerned with, and also benefiting from the rise of globalised developments around the world is the higher education sector. For instance, while in 1975 0.6 million tertiary students were studying outside their country of citizenship, the numbers continuously increased over the years to 1.9 million in 2000 and 2.9 million in 2006 (OECD, 2008, p. 353). In 2006, tertiary enrolments of international students in OECD member countries were most numerous in Australia (17.8%), New Zealand (15.5%), the United Kingdom (14.1%), Switzerland (13.7%) and Austria (12%) (OECD, 2008, p. 366).

In Australia, where this research was conducted, the constant growth in numbers of international students participating and studying in tertiary education was seen as a central step towards the internationalisation of higher education (Knight & de Wit, 1997). As a result
of this development, Australian campuses are nowadays characterised by culturally diverse student bodies which have created a range of academic and social benefits, but also challenges for staff and students – both local as well as international. One issue that attracts frequent and increased attention is the paucity of contact between culturally diverse students inside as well as outside class (Asmar, 2005; Barron, 2006; Kudo, 2000; Nesdale & Todd, 1993; Quintrell & Westwood, 1994; Sawir, Marginson, Deumert, Nyland, & Ramia, 2008; Robertson, Line, Jones, & Thomas, 2000; Volet & Ang, 1998). This matter has also received substantial consideration in other countries hosting large numbers of international students (e.g., Canada: Myles & Cheng, 2003; Japan: Tanaka, Takai, Kohyama, Fujihara, & Minami, 1997; New Zealand: Ward, 2001; UK: Montgomery, 2009; US: Trice, 2004). It appears that despite the influx of culturally heterogeneous student populations, interactions between students from different cultural backgrounds on- and off-campus remain ominously scarce.

Students’ willingness and openness to participate and engage in intercultural interactions and learning is a vital issue in countries with diverse student populations (e.g., Ippolito, 2007; Montgomery, 2009; Volet & Ang, 1998). In the Australian context, culturally diverse student groups display a strong tendency to study separately from each other, with research evidence that students prefer working with group members coming from the same or similar cultural background (e.g., Nesdale & Todd, 2000; Volet & Ang, 1998). It is evident that students are inclined to seek social contacts that entail a low risk of negative or awkward experiences (Nesdale & Todd, 2000), which is certainly more likely with peers sharing the same values, beliefs, attitudes and experiences. The roots of in-group/out-group research go back to Allport’s (1954) early work on in-group attachment and Byrne’s (1971) similarity principle, which advocates that the familiar is commonly preferred over the unfamiliar. In this regard, a range of studies exclusively focusing on the experiences of international students, suggest that participation in groups and networks with culturally similar peers is perceived as comfortable
and less stressful due to provision of emotional support, a sense of security and a means of exchanging information and knowledge about the new culture and environment (e.g., Al-Sharideh & Goe, 1998; Carr, Koyama, & Thiagarajan, 2003).

Consistent with this reasoning, further research found converging evidence that the phenomenon of in-group bias is also widely present in informal, out-of-class, social activities (e.g., Halualani, Chitgopekar, Huynh, Morrison, & Dodge, 2004; Nesdale & Todd, 2000; Kudo & Simkin, 2003; Rosenthal, Russell, & Thomson, 2007; Toyokawa & Toyokawa, 2002). For instance, Rosenthal et al. (2007) found that in the Australian context students were inclined to mix with others coming from the same or similar cultural background, both at university and off-campus. Furthermore, intercultural contact between local and international students was generally uncommon and occurred even less frequently off-campus than on-campus.

This situation is concerning as it limits naturally emerging opportunities for students to develop intercultural experiences and competencies. Such a circumstance clearly defeats the aims of international education aspiring to prepare all students to skilfully and knowledgeably live, interact and work in multicultural settings (Marginson, 1999; Knight, 1994; Knight & de Wit, 1995; Pickert, 1992; Welch, 2002). Further social and educational goals associated with the internationalisation of higher education embrace issues such as: promoting a critical awareness of the culturally grounded nature of knowledge (Volet, 2004), counteracting out-group prejudice and stereotyping (Nesdale & Todd, 2000), and fostering students’ intercultural competence (Stier, 2003). Yet, intercultural contact and exchanges between students from diverse backgrounds is a fundamental prerequisite to promote the development of such desirable attributes.
Strategies to promote intercultural contact with a particular focus on collaborative learning. In light of increasing evidence of lack of intercultural exchange among peers from culturally diverse backgrounds, one central focus in higher education research has been placed on developing and implementing strategies to continuously encourage, foster and facilitate positive and rewarding intercultural interactions on- and off-campus. Applied strategies in that regard are, for instance, peer pairing (e.g., Pritchard & Skinner, 2002; Quintrell & Westwood, 1994), cultural diversity training and awareness raising (Bennett, 2004; Deakins, 2009; Klak & Martin, 2003) and collaborative learning activities (e.g., Eisenchlas & Trevaskes, 2007; Ippolito, 2007). The latter is regarded as a promising strategy for promoting intercultural interactions and intercultural learning (e.g., de Vita, 2005; van der Wende, 2000) especially since collaborative learning is widely viewed as a powerful vehicle for effective learning.

According to Dillenbourg, Baker, Blaye and O’Malley (1996), collaborative learning constitutes a key component of academic learning with strong theoretical and empirical support for its cognitive and motivational benefits. Further benefits of peer learning include facilitation of generic learning outcomes, the promotion of lifelong learning skills, group skills, communication skills, critical reflection skills, and self-directed learning skills (Boud, Cohen, & Sampson, 1999; Gupta, 2004). Hence, culturally diverse group work is viewed as ideally suited for creating natural opportunities for intercultural learning (e.g., de Vita, 2005; van der Wende, 2000) and facilitation of intercultural competency for all students (e.g., Stier, 2006) as it requires negotiation of potential differences in prior knowledge, educational experiences and understandings. Yet, the expected benefits of collaborative learning can only emerge if group members are willing to engage, and manage to successfully learn and work together, which is not always the case.
Apart from its benefits, a number of studies have shown (Burdett, 2003; Garcia-Prieto, Bellard, & Schneider, 2003; Volet & Mansfield, 2006; Watson, Johnson, & Merritt, 1998; Wright & Lander, 2003) that collaborative learning can be fraught with a range of problems and a variety of socio-emotional, interpersonal and motivational challenges. As Keyton (1999) points out, it requires a complex set of skills to successfully manage the multiple relationships present in a group. This becomes even more critical when groups are culturally diverse, as interpersonal relationships may become more complex and socio-emotional challenges may increase when students navigate diverse communication styles and work habits. According to Watson, Kumar and Michaelson (1993), the skills required to work effectively in culturally diverse groups can be quite different from skills required in culturally homogeneous groups. Hence, students having no or only very limited cross-cultural knowledge may experience enormous socio-emotional and interpersonal difficulties when required to work collaboratively on a specific task in a culturally diverse group. In this regard, it may not be surprising that many students do not display a spontaneous willingness and openness to participate and engage in intercultural interactions and culturally mixed learning activities.

While the minimal level of intercultural exchange on-and off-campus is widely acknowledged and documented in reports and scholarly literature, comprehensive insights into and explanations for this troubling phenomenon are still largely missing. For instance, socio-cultural, cognitive, motivational, emotional and relational dynamics evolving when students from culturally diverse backgrounds learn, work and socialise with each other throughout their everyday encounters are still not well understood. This could be the result of a number of conceptual shortcomings and methodological limitations of prior research, which are addressed and discussed in more detail in the following sections.
1.2 Conceptual shortcomings of prior research

One potential explanation for the limited contribution of prior research to understanding the underlying reasons why intercultural interaction remains scarce on and off-campus, is the lack of systematic examination of the social context in which intercultural encounters occur. Prior studies dominantly include a broad, general de-contextualised focus on students’ intercultural experiences with few deliberate attempts to analytically unpack the relational and context-sensitive character of these experiences. Consequently, that research is limited in its potential to capture the complex, interdependent and situated nature of intercultural encounters as these emerge in daily activities.

As advocated by situative and sociocultural perspectives (e.g., Greeno, 1998; Pintrich, 2000; Turner & Meyer, 2000; Volet, 2001), the broader social, cultural and historical context presents the fundamental frame within which social activities are embedded and from which mental processes emerge. Such approaches stress the significance of mutual, dynamic interactions between individuals and culturally constituted contexts for the emergence of cognitive, motivational, emotional and relational orientations. Hence, while gaining insights into inter- and intra-personal processes in intercultural interactions is important to better understand why intercultural interactions are negligible, these can only be fully understood when acknowledging the situated, contextualised nature of such encounters. More precisely, it is vital to consider the complex and interdependent interplay of individuals-in-context and to acknowledge the significant role of contextual characteristics of the immediate social environment (e.g. course, class, small group) for students’ perceptions and experiences of intercultural interactions.

In this regard, it is critical to note that individuals’ knowledge and daily experiences are not limited to a single social context (e.g. Barab & Plucker, 2002; Gurtner, Monnard, & Genoud,
Individuals are members of and participate in various social contexts throughout their lives: consecutively or and simultaneously (i.e., family, neighbourhood, peers, school, classrooms, seminars, sports clubs, etc.). Consequently, it is the interplay of experiences gained in all of these contexts which concurrently and continuously co-define and co-shape individuals’ knowledge, attitudes and behaviours. Following this line of thought, it is essential to gain insights into how students experience and perceive intercultural interactions in various social contexts (different classes, different groups, formal vs. informal contexts). Accordingly, such insights could reveal how experiences vary or converge between social contexts in relation to prevailing contextual affordances and limitations. Overall, such an approach has the potential to illuminate the extent to which students’ intercultural experiences in various social contexts may cross-fertilise each other and may produce specific motivational, attitudinal and relational orientations towards intercultural encounters in general.

Moreover, it is vital to acknowledge that students’ attitudes towards, perceptions and experiences of intercultural interactions are complex entities of multiple and interrelated dimensions (Volet, 2001) rather than generic one-dimensional and stable constructs as implicitly assumed in most of the existing literature. Students’ experiences of learning and social encounters are composed of a range of expectations, cognitions, motivations, and emotions which vary in light of the specific social situation in which they occur. Hence, they cannot be treated as firm, isolated composites.

This point leads to a related issue concerning the conceptualization of the participants of intercultural interactions. Ryan and Louie (2007) warned against rigid and dichotomous views of ‘home, domestic’ and ‘foreign, international students’ in light of nationalities or ethnic origins as often used in discourses around internationalization of higher education. Such views “refer to ideals and models that do not bear much resemblance to the ‘real’ people who
study in university” (Montgomery, 2010, p. 122) and often implicitly insinuate superiority of Western, Euro-American systems and practices (e.g., Shirato & Yell, 2000). Consequently, terms and concepts used to describe participants in intercultural interactions necessitate detailed clarification of their underlying meaning. More importantly, research on intercultural interactions would benefit from more thorough considerations of individuals’ backgrounds and life experiences which influence meaning making and behavior during intercultural interactions in educational settings. Hence, rather than broadly referring to ‘international’ and ‘home’ students as two distinct groups each composed of a supposedly homogeneous student body, the range of individual, personal histories, experiences, motivations and expectations should be acknowledged (e.g., Koehne, 2005). Only then, a comprehensive and accurate understanding of individuals’ actually lived and perceived intercultural experiences becomes realistic.

So far these issues have not been adequately addressed in the existing body of literature on students’ intercultural interactions at university, partly due to inherent consequences of adopted methodological approaches. The methodological limitations of prior research will be outlined in more detail subsequently.

1.3 Methodological limitations of prior research

Despite the acknowledged significance of context in educational psychology and other disciplines, prior research in this field has typically investigated students’ intercultural experiences in a single context at a single point of time. Much of the research conducted to date has adopted large scale, one-off quantitative survey approaches aimed at capturing the views of large numbers of students - often with an exclusive focus on the international student group as a whole. No matter whether questionnaires (Grayson, 2008; Halualani et al., 2004; Trice, 2004; Toyokawa & Toyokawa, 2002) or interviews (e.g., Li & Campbell, 2008; Dunne,
2009; Henderson, 2009; Halualani, 2008; Marlina, 2009; Sawir et al., 2008; Villar & Albertín, 2010) or a combination of qualitative and quantitative approaches (e.g.; Myles & Cheng, 2003; Leki, 2001; Harrison & Peacock, 2009) were used, a systematic examination of the social context within which intercultural encounters emerged are by and large missing. A few exceptions are studies on friendship patterns and social networks (e.g., Bochner, McLeod, & Lin, 1977; Lee & Rice, 2007; Montgomery & McDowell, 2009) which highlighted how the social context within which learning and interactions occurred can affect relationship development among students. Yet, all these studies exclusively focus on the experiences and perceptions of international students and were conducted in a single university context. Studies focusing on the experience of both domestic and international students are few and far between.

Furthermore, the majority of uni-contextual approaches based on snapshot data implicitly impart the view that the phenomena under investigation are stable over time and across contexts. More precisely, these studies are rather inadequate in grasping how complex, interacting personal, social and contextual factors co-contribute and -influence students’ intercultural attitudes and experiences over the duration of a specific event respectively within and across various social situations in daily encounters. A noteworthy exception is the research of Montgomery (2010) who employed a shadowing scheme to follow students in their everyday movements around campus (e.g., classes, tutorials, clubs) over an extended period of time. In doing so, the author gained valuable information regarding the contextualised personal and social experiences of a small number of international students.

As previously alluded to, a further limitation of prior research on intercultural interactions at university conducted in Western countries is the adopted uni-directional perspective of intercultural exchanges and relational development. Prior studies were often conducted with
samples of one group of students, typically broadly labelled as ‘international’ and ‘local’. Commonly driven by economic motives, the focus was typically put on how to best meet international students’ needs and demands. However, to gain a deeper and better understanding of the complex, interdependent nature of students’ intercultural interactions, it is critical to examine accounts, perspectives, experiences and reflections of both groups of students – international and local. So far, only a few researchers investigated the issues of interest from a bi-directional perspective (e.g. Volet & Tan-Quigley, 1999; Ward, 2001; Wright & Lander, 2003; Ujitani & Volet, 2008).

The limited understandings that currently exist about the context-sensitive and interdependent nature of students’ intercultural interactions, along with the conceptual and methodological limitations outlined above, informed the design of the current research grounded in an individual-in-multiple-contexts perspective. The theoretical and conceptual framework of this project will be presented in the next section.

1.4 Theoretical framework of the current research

In line with the shift from studying psychological phenomena with an exclusive focus on the individual, towards the person-in-context perspective which locates mental processes in social activities embedded in broader social, cultural and historical contexts (e.g., Greeno, 1998; Pintrich, 2000; Volet, 2001; Walker, Pressick-Kilborn, Arnold, & Sainsbury, 2004), this research acknowledges the importance of context for an individual’s behaviour and thinking (Anderman & Anderman, 2000; Turner & Meyer, 2000) by examining students’ intercultural experiences in various social settings and situations.

The importance of considering the multiple social contexts and multi-layered nature of contexts that individuals belong to and participate in, has been stressed in educational
Activity theory (e.g., Leont’ev, 1978, 1981; Engeström, 2001; Nardi, 1997) was also viewed as a useful framework for interpreting students’ intercultural experiences, because of its emphasis on complex interrelations between individuals and their social environments. Intercultural interactions can be viewed as socially situated activities (e.g., Engeström, 1993, 2001; Lave, 1993) in which individuals engage for the accomplishment of various objects or goals. The objects and goals of intercultural activities may vary depending on the socially constituted context within which they take place. Hence, for a comprehensive understanding of intercultural interactions, these need to be viewed in relation to their objects and the social situations in which they occur. Moreover, individuals naturally move between multiple social contexts and constantly engage with members of other communities (e.g., Engeström, Engeström, & Kärkkäinen, 1995; Tsui & Law, 2007) throughout their everyday lives. As a consequence, activities are inherently nested with other activities and social contexts as these represent the entity of individuals socially constituted world. Throughout these processes individuals may transfer experiences from one intercultural activity to another. In other words actions carried it out in one kind of activity, can shape a subject’s pattern of participation in another activity. Thus, participation in one activity can generate contextual affordances and limitations for participation in other activities which emphasises the overlapping or embedded nature of social activities (Engeström et al., 1995). In sum, activity theorists stress the
interdependent relations between individual subjects and their surroundings (Leont’ev, 1981; Engeström, 2001) and claim that activities cannot be understood in isolation from the social contexts in which they occur (Lave, 1993).

Research based on such a theoretical grounding was expected to reveal the situated, contextualised and interdependent nature of students’ behaviours and thinking, and shed light on contextual features that are more or less conducive for constructive and satisfying intercultural interactions. Moreover, the incorporation of a longitudinal perspective (even short-term) was viewed as having the potential to uncover how interactional patterns emerge and evolve within a social context over time or why patterns change or stay the same.

Overall, this research acknowledges the situated nature of learning (Chaiklin, & Lave, 1996; Brown, Collins, & Duguid, 1989; Lave, & Wenger, 1991) and intercultural interactions and the complex, interdependent relationships of individuals-in-contexts (Pintrich, 2000; Volet, 2001). The importance of multiple and multi-layered social contexts for individual behaviours and understandings (e.g., Barab & Plucker, 2002; Gurtner et al., 2001) are highlighted as intercultural interactions are investigated in various social contexts with diverging contextual characteristics at distinct levels of contexts. Furthermore, this research emphasises the multi-dimensional and multi-faceted nature of individual experiences (e.g., Volet, 2001) by considering a range of cognitive, motivational, affective and relational implications of intercultural interactions. Hence, intercultural experiences and attitudes are conceptualised as multi-dimensional, interdependent, and context-sensitive constructs. Consequently, the current research acknowledges the mutually dependent, reciprocal character of intercultural exchanges (Kudo & Simkin, 2003; Ujitani & Volet, 2008) and incorporates the voices and experiences of diverse student groups.
Moreover, this research stresses the significance of affordances and constraints (Greeno, 1998) for individual participation in social activities that are generated in social situations where individual, social, cultural and other contextual aspects co-shape and co-regulate participation (Hickey, 2003; McCaslin, 2004). Exploring possible relationships of factors and conditions - at the individual, group and broader contextual level – impacting on group dynamics and, ultimately, on students’ experiences of intercultural interactions, is critical for enhancing educational practice in higher education. Such insights may provide a sound starting point to ensure that students’ academic and social experiences are as positive and rewarding as possible.

Based on these issues, this research sought a fuller and deeper understanding of students’ attitudes towards and experiences of culturally diverse learning activities and interactions on- and off-campus by adopting a multi-layered, multiple context and activity-oriented approach.

The following section presents the overall research purpose and the focus of the empirical studies and the review chapter.
2. THE RESEARCH PROJECT

This PhD is part of a larger programme of research embedded in the frame of internationalisation of Australian higher education. Specifically, its focus lies in the significance of multiple social contexts in university students’ experiences of and attitudes towards culturally mixed learning activities and interactions on- and off-campus.

As previously discussed, the issue of context plays a key role in this research, which is reported as a set of empirical studies each investigating the implications of context for students’ group work and relational experiences, from a different contextual angle. Specifically, context in its various conceptualisations varies across studies. The aim was to gain a deeper insight into how learning and interacting with peers from culturally diverse backgrounds may be perceived or play out differently depending on the situation and the learning environment in which it occurs. Moreover, the empirical studies combined quantitative methodologies for the identification of meaningful patterns (Study 1), and qualitative methodologies for gaining experiential insight into the complex, social phenomena of intercultural interactions (Study 2 and Study 3). Each study is described in more detail below. An overview of the research design and incorporated empirical studies is presented in Figure 1.
Figure 1. Overview of research design
Study 1 of the research investigated the significance of the learning context in students’ developing attitudes and (meta)cognitions towards learning and working in culturally mixed groups during a real-life group assignment. In this study, context was operationalised as two classes from two study programmes with culturally diverse and non-diverse small groups embedded in each class. Two distinct classes (Business and Science) were chosen as these naturally differed on important contextual elements (e.g., cohort and task characteristics, teacher support) identified as critical in the literature (e.g., Cohen, 1994; Johnson, Johnson, & Smith, 1998; Slavin, 1996) for collaborative processes. The small group level was incorporated as it represents students’ proximate, direct learning context and, thus, was expected to provide a more fine-grained picture of how students’ group work experiences emerge contingent on a combination of small group characteristics and contextual features at the broader class level. To avoid narrow, rigid conceptualisations of small groups on the basis of student nationality or ethnic background with the aim of accounting for students’ cultural experiential backgrounds, diverse and non-diverse small groups were generated in light of students’ prior schooling experience and language competency (mono-/ multi-lingual). Moreover, students’ attitudes towards the specific task at hand were conceptualised in terms of several dimensions (e.g., cognitive, motivational, affective, interpersonal, management, assessment) to acknowledge the multi-faceted and multi-dimensional nature of students’ group work experiences. Student appraisal of culturally diverse group work was determined by their attitudes towards completing the specific assignment in a group of peers from diverse cultural backgrounds. Questionnaires were given to students prior to task commencement and after task completion with the aim of detecting significant, meaningful patterns of emerging group work appraisals in relation to multiple dimensions of the task at multiple layers of context.
The multi-layered and multiple context design adopted in Study 1 was expected to provide valuable information on the emergence of students’ group work appraisals in the context of specific small group configurations embedded within instructional environments characterised by distinct contextual affordances and constraints. Consequently, it was anticipated this approach may shed light on how students’ attitudes towards multiple dimensions of a group assignment develop over its duration and how groups’ appraisals evolve in a particular learning context.

Study 2 served to follow-up on meaningful patterns identified at the class and small group level in Study 1 as these could only be explained and interpreted speculatively on the basis of detected contextual affordances and constraints. Thus, Study 2 aimed at gaining rich experiential insights into students’ personal accounts and interpretations of their intercultural experiences in culturally diverse groups over the duration of their study. Therefore, context was conceptualised at the study programme level (Business and Science) where intercultural and learning experiences emerge throughout various group assignments. Consequently, students’ cultural mix appraisal was operationalised as their attitude towards interacting with peers from different cultural backgrounds based on prior group work experiences in the relevant programme. A series of semi-structured in-depth focus group (culturally diverse and non-diverse) and individual interviews were conducted with students from two study programmes similar to Study 1. Focus group and individual interviews elicited rich, detailed and context-sensitive insights into students’ attitudes towards and perceptions of culturally diverse group work, which provided a range of tentative explanations for the patterns identified in Study 1.

Study 3 addressed intercultural interactions from an activity-oriented and multiple context perspective and attended to two issues that have been largely unexamined in the
current literature: first the extent to which students’ intercultural experiences play out differently in non-academic, informal social contexts in comparison to formal, mandatory group learning activities; and second, the extent to which students’ intercultural experiences in these two contexts cross-fertilise each other either positively or negatively, or if they are unrelated. Consequently, in Study 3 the contextual foci were extended from formal, educational, mandatory group learning activities within two distinct study programmes (again Business and Science) to non-academic, informal social settings where students from diverse backgrounds interact and socialise with each other.

In this study the conceptual angle was extended and activity theory was used as a framework to interpret students’ experiences of intercultural encounters. Hence, and consistent with activity theory, context was conceptualised as a socially situated activity (e.g., Engeström, 1993; Lave, 1993) embedded within broader activity systems. Activity as context for intercultural interactions emphasises individually attributed purposes and motivations to engage in the activity as well as prevalent social conventions and styles of interaction salient for successful activity completion. In this regard, two central ideas from activity theory as highlighted by Engeström (1993, 2001) were found important for understanding intercultural interactions: division of labour and multi-voicedness. In the context of group work, where members have similar status and are expected to make equal contributions, Engeström’s notion of “horizontal division of tasks between the members of the community” (1993, p.67) was particularly relevant. The notion of multi-voicedness is also attractive since acknowledging participants’ multiple traditions, interests and viewpoints, often in need of negotiation to avoid conflict. Hence, it was posited that division of labour and multi-voicedness may play a particularly important role when individuals’ from diverse cultural and experiential backgrounds interact for the accomplishment of a common goal. In this study intercultural interactions represented purposeful actions that were part of a social activity
emerging within a specific context (i.e., formal, educational and informal, social setting). In turn, these social contexts were conceived as nested within other broader social contexts (e.g., family, peers, work).

To accommodate the view that students continuously move across formal educational and informal social contexts during their academic study, the aim of this study was to establish how their experiences of culturally mixed activities reflect complex individual-context interplays that span across all aspects of their daily lives. Such a holistic conceptualisation is highly relevant to understanding intercultural interactions at university and may shed light on how attitudes towards intercultural engagement are related to broader social experiences. Furthermore, this conceptualisation enabled understandings to be developed about how these experiences may interact, counteract or merge to produce intercultural opportunities, or alternatively create motivational disincentives for intercultural encounters. The usefulness of a multiple contexts and activity perspective to understand intercultural interactions was empirically examined using interview data on students’ subjective interpretations of intercultural experiences across multiple contexts and situations (i.e., formal, educational, on-campus and informal, social, off-campus).

In addition to the empirical studies, this PhD also includes a review chapter which addresses a related issue relevant to this work. This chapter focuses on a contextual angle not explicitly addressed in the empirical studies, namely, the significance of the cultural context for individuals’ cognitions and behaviours. More precisely, the chapter examined the significant contribution of culture in recent motivation research by considering implications of the cultural framework from which theoretical concepts and empirical findings emanated. Such an approach has the potential to lead to a better understanding of individuals’ motivational orientations and displayed behaviours on the ground of the broader historical,
societal and cultural milieu. Current theories of motivation which chiefly originated from and were validated in Euro-American contexts were questioned as these often used static, either-or dichotomies to explain cultural variations in motivational orientations. Yet, on the ground of solid empirical support for the fluid, contextualised and heterogeneous nature of culture stemming from cultural and indigenous psychology research, categorical, dichotomous and reductionist conceptualisations of motivation and culture appear as inadequate. Finally, this review chapter emphasised the dynamic and situated nature of culture and demonstrated the moderating influences of the cultural context on individuals’ behaviours and thinking.

In the next section, the overall research aims of the three empirical studies and the review chapter will be outlined followed by a brief summary of each PhD component.
The present research aimed at examining the significance of context for university students’ attitudes towards, appraisals, perceptions and experiences of working, learning and interacting with peers from different cultural backgrounds. Three empirical studies were designed, each adopting a different contextual angle with a view to better understand the context-sensitive, situated and interdependent nature of students’ intercultural experiences and attitudes.

The overall aims shared by all studies were:

- to determine the context-sensitive nature of university students’ intercultural encounters (i.e., how are intercultural interactions perceived and experienced in various social contexts)
- to gain insight into the role of social contexts for the quality and extent of university students’ intercultural experiences, and ultimately attitudes towards mixing with peers from different cultural backgrounds.
- to establish individual and contextual characteristics associated with positive, rewarding and/or negative, unfavourable intercultural experiences.
- to unveil students’ cognitive, motivational and affective orientations in intercultural interactions across multiple social contexts.
- to determine stability and change of students’ intercultural appraisals and attitudes within and between social contexts.

In addition to these overall aims, a specific aim of Study 3 was to demonstrate the usefulness of activity theory for understanding intercultural interactions at university and off-campus.
More specifically, Study 3 aimed at illuminating the context-sensitive, interdependent and complex nature of intercultural activities by acknowledging the reciprocal interplay between individuals and their social surroundings. A further aim was to gain insights into the overlapping and/or embedded, interacting nature of social contexts and the extent to which intercultural experiences in various social contexts are interrelated, and possibly cross-fertilize each other.

The review chapter had the specific aim to examine the significant contribution of culture in recent motivation research. Key motivational constructs that attracted substantial research from a cultural perspective were selected as an illustration to demonstrate the richness and diversity of theorizing and empirical work.

Investigating students’ intercultural experiences from a multi-layered, multiple context and activity theory perspective has the potential to address the above outlined aims and contribute to a deeper insight into socio-cultural group dynamics and socio-emotional challenges impacting on intercultural interactions in formal and informal (learning) activities. A better understanding of these issues was expected to provide a sound knowledge base from which universities and staff can improve design and implementation of effective learning opportunities that encourage, facilitate and enhance intercultural learning and ensure that the experiences of diverse groups of students are academically, psychologically and culturally as positive and rewarding as possible.

The next section provides an overview of the empirical studies and the review chapter.
4. AN OVERVIEW OF THE EMPIRICAL STUDIES AND THE REVIEW CHAPTER

4.1 Study 1

Significance of context in university students’ (meta)cognitions related to group work: A multi-layered, multi-dimensional and cultural approach


Introduction

This paper examines the significance of context in university students’ development of (meta)cognitions related to a specific, real-life group assignment. For this purpose context was conceptualised at two levels: class (Business, Science) and small groups within class (culturally diverse, non-diverse) and the following research questions were addressed:

- How do students’ cognitions related to a group assignment and group work more generally, evolve over the duration of that activity within a particular class context?

- How do students’ evolving cognitions vary, depending on whether the assignment is completed in a diverse or non-diverse small group embedded within a particular class context?

Method and procedures

Participants were two classes of 2nd year university students (Science $N = 81$, Business $N = 88$). The two classes were chosen as their respective instructional environments displayed the characteristics of more (Science) and less (Business) enabling collaborative contextual conditions. While in both classes students had to complete a mandatory, self-managed group
assignment, which attracted a group mark, there were also considerable differences across study contexts. Within Science group sizes varied between five to six members, teacher support was structured including compulsory meetings to monitor group processes and progress and task features were interdependent requiring considerable collaboration and interactions among students for successful completion.

By comparison, within Business groups sizes varied between three and four members, opportunities for teacher support were by appointments during weekly consultation time, and task features were non-interdependent allowing students division of labour and task completion in isolation. At the broader level, the two study contexts also different in structure: while Science students formed a cohort studying exactly the same units and thus were more familiar with each other, Business students came from a larger student population that studied core and elective units, and thus were not as familiar with each other.

In each course the groups worked together for a period of approximately seven to eight weeks. Small group membership was self-selected. Non-diverse groups (Science $N = 6$, Business $N = 14$) were composed of peers who had completed their entire schooling in Australia, were permanent residents and pre-dominantly mono-lingual. Diverse groups (Science $N = 8$, Business $N = 15$) were comprised of some peers with these characteristics, but at least 50% of the group members were peers with extensive international experience. The latter had completed the majority of their schooling in another country, were typically permanent residents of other countries and pre-dominantly multi-lingual.

All students completed matched questionnaires at the beginning and end of the group assignment which allowed for the examination of stability and change in students’ group work appraisals. The main instrument was the Students’ Appraisals of Group Assignments (SAGA)
Questionnaire, which contains six contextualised scales (5 items each) measuring students’ appraisals of the Cognitive Benefits, Motivating Influence, Affect, Management, Group Assessment, and Interpersonal dimensions of their current assignment (thus contextualised to that task). One measure from the SAGA-General version (de-contextualised) was also used in this study. The Cultural Mix scale (5 items) measures students’ general attitude towards assignments being done in groups comprised of both international and local students. Limited number of small groups required non-parametric tests for data analysis. Hence, Mann-Whitney and Wilcoxon's signed rank tests were conducted. Finally, to account for the interdependence between peers in small groups, it was critical to conduct analyses using group mean scores

**Results**

Diverging trends in students’ (meta)cognitions emerged at class and small group level, which reflected affordances and constraints of the immediate learning context.

**Class level**

Repeated measures MANOVAs (Class by Time) were carried out for all six SAGA-Contextualised subscales as dependent variables. Within Business, students’ group work appraisals displayed an overall negative trend. More precisely, students’ appraisals of Cognitive Benefits, Motivational Influence and Affect were less favourable after task completion than at the beginning. By comparison, within Science students’ group work appraisals overall stayed stable and indicated a positive trend. Particularly, Science students’ attitude towards Group Assessment was more positive after having worked on the project than prior to task commencement.
Small group level

Wilcoxon’s signed rank tests were conducted to explore the emergence of multi-dimensional group work appraisals over time separately for non-diverse and diverse groups in each study programme. There was a mainly negative development for non-diverse groups within Business, while students’ appraisals in diverse groups largely stayed stable. The decrease over time within non-diverse groups was significant for Cognitive Benefits, Motivating Influence, Affect, Management, and Assessment. Alternatively, diverse groups displayed significantly more positive appraisals for the Interpersonal and less positive attitudes towards the Cognitive aspects at the end of the group assignment. In terms of the remaining SAGAContextualised subscales diverse groups in the Business class remained moderately positive.

Following up on group types within the Science class, non-diverse groups’ appraisals stayed stable over time, while diverse groups changed significantly in terms of two SAGAContextualised subscales. Wilcoxon’s signed rank tests revealed that diverse groups were more positive towards the Affect and Assessment dimensions of the group assignment at the end.

With regard to Cultural Mix, a Mann-Whitney test revealed that prior to task commencement culturally diverse groups were systematically more favourable than non-diverse groups towards mixing with students from different cultural backgrounds for group assignments. This overall pattern was consistent across study contexts. Furthermore, Wilcoxon’s signed rank tests were conducted for group type (culturally diverse, non-diverse) within class (Business, Science) for Cultural Mix. These tests showed similar changes over time for each group type in both study contexts. While diverse groups did not significantly change on that measure, non-diverse groups were significantly less positive towards mixing at the end of the particular group assignment.
Conclusion

The opposite direction of change for the two classes provides support for the significance of the class level for understanding students’ experience of a group learning activity. The negative overall trend within Business and contrasting positive trend within Science reflected distinct class-level affordances and constraints for students’ multi-dimensional experience. These can be interpreted in terms of task interdependence, teacher support within class, and how well students knew each other prior to the group activity (cohort effect).

The number of diverging trends that emerged for different dimensions in regard to culturally diverse and non-diverse groups within Business and Science further highlights the need to treat group work as multi-dimensional, but also as sensitive to the interacting characteristics of different layers of context.

In sum, Study 1 revealed distinct patterns of students’ (meta)cognitions and Cultural Mix appraisal related to a real-life group assignment across contexts of study. Yet, the interpretation of the findings remained speculative and required qualitative insights. For this purpose, Study 2 was conducted as a follow-up.
4.2 Study 2

University students’ perceptions and attitudes towards culturally diverse group work: Does context matter?


Introduction

This paper aimed at gaining insight into students’ personal accounts and interpretations of their intercultural experiences over the duration of their study within the overall learning environment of their study programme. This article revealed the significance of the broader instructional environment for students’ experiences of mixing with peers from diverse cultural backgrounds and emphasised the richness of illuminating quantitatively detected patterns (Study 1) with anecdotal, subjective insights. Following up on findings from Study 1, the following research questions were addressed:

- How do students explain the process of self-selection into culturally diverse or non-diverse groups in their study context?
- Why do students who self-select into non-diverse groups become more negative towards working in diverse groups?

Method and procedures

Semi-structured, in-depth focus group and individual interviews were conducted with twenty-seven students from two distinct study programmes (identical to Study 1): Business (*N* = 13) and Science (*N* = 14). Interview questions were framed in such a way as to invite students to talk freely about various aspects of their group work and social experiences involving
interaction with peers from different cultural backgrounds. Interviews were conversational and lasted between 30 to 90 minutes. All sessions were audio-taped upon students’ consent and transcribed verbatim for analysis.

The interview data was transcribed and coded according to the principles of qualitative content analysis (Chi, 1997; Mayring, 2000). Transcripts were analysed using a dynamic combination of inductive and deductive techniques (Chi, 1997; Miles & Huberman, 1994): being open for emerging themes while also examining (in)consistencies with concepts derived from prior research on intercultural interactions between student groups. The analysis was dynamic in a sense that it remained open towards incorporating data- and theory-driven modifications throughout the entire coding process. All data were entered in MaxQDA software programme.

Results

With regard to students’ explanations of self-selection into culturally diverse or non-diverse groups, findings revealed students’ strong inclinations to work with close peers or friends from similar cultural backgrounds regardless of study context. Regardless of cultural background, students perceived working with friends and peers from a similar background as less stressful, more relaxing and more fun. However, having a relaxed, fun time emerged as important mainly for local, Australian students. Furthermore, reservations to join culturally diverse groups for assessed projects were explained by factors such as communication difficulties (due to language proficiency and accents), differences in working styles and work ethics.

Across study contexts differences in explanations regarding the process of self-selection into diverse/ non-diverse groups varied in relation to proficiency in the language of instruction and
academic skills. While Business students’ frequently addressed the lack of language competency and academic skills as an inhibiting and distracting factor in culturally diverse groups work, these aspects did not play a salient role for group work within the Science course. A further emerging theme among both Business and Science students’ explanations for self-selection into groups were differences in familiarity with the peer group (cohort effect). Although group work was a common requirement across Business units, most students declared they met new peers every semester, highlighting the high degree of anonymity in the Business course. Cohort issues also emerged spontaneously in interviews with Science students. Remarkably, some Science students reflected upon the highly segregated nature of student groups in their course, in spite of all students being familiar with each other.

Furthermore, students’ knowledge of and attentiveness to spreading stories and hearsay was found to play an important role for students’ attitudes towards culturally diverse group work. Students’ own accounts and reflections made it possible to seek an explanation within extended contact theory (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) which claims that an individual may displays more positive/ negative attitudes towards an out-group after observing or hearing about an in-group member’s positive/ negative experience with a member of that out-group. Regardless of study context, students unanimously admitted that hearing accounts from others influenced their own ideas and, in some cases, re-affirmed their already unfavourable attitudes towards intercultural mixing. Yet, more insights are required to gain a better understanding of the role of the extended contact effect for students’ attitudes towards intercultural interactions.
Conclusion

Students’ subjective accounts and experiences of mixing with peers from different cultural backgrounds largely converged with the existing body of literature. Especially, the issues of strong detachment between cultural groups and commonly mentioned impediments to mixing such as differences in working styles, management problems and assessment concerns were highly consistent with prior research on students’ intercultural interactions in academic settings (e.g., de Vita, 2002; Lee & Rice, 2007).

While these themes emerged across study contexts, the study design with two distinct learning contexts was critical to reveal exclusive patterns specific to each educational environment. The incorporation of multiple contexts with distinct organizational characteristics and instructional features provided rich and valuable insights into the context-sensitive nature of intercultural interactions. It is argued that relational and collaborative dynamics play out differently depending on a combination and interaction of contextual affordances and constraints. Particularly, cohort characteristics, language competency and level of academic standard differed across study contexts and created learning environments that appeared to be more (Science) and less (Business) conducive for rewarding and productive peer interactions and group management. The combined effect of lacking cohesiveness, widespread communication difficulties and poor academic skills co-contributed to a less favourable climate for mixing within Business, particularly for local students. Whereas within Science, cohort features, language fluency, and high academic standards co-generated a more constructive environment for culturally diverse group work.
4.3 Study 3

Intercultural interactions at university: New insights from an activity theory and multiple contexts perspective


Introduction

The aim of this paper was to gain new insights into students’ intercultural interactions by framing these as social activities nested within overlapping or embedded, interacting activity systems. Activity systems in this paper were regarded as the various formal, educational and informal, social contexts that students participate in on a daily basis.

From a combined activity theory and multiple context perspective intercultural interactions were viewed as context-sensitive and interdependent activities which emerge from complex interrelations between individuals and their social environment. This conceptual grounding was based on the assumption that concepts from activity theory capture the systemic and situated nature of intercultural interactions as social activities, whereas a multiple context perspective acknowledges that intercultural activity occurs in multiple contexts throughout individuals’ everyday lives. Consequently, this combined conceptual approach was used in an empirical investigation that addressed the following two questions:

- How do students account for intercultural activities in formal academic and informal social contexts?
- To what extent are experiences of intercultural activities in formal, educational and informal, social contexts related, and possibly cross-fertilize each other?

**Method and procedures**

Data for this investigation was obtained in semi-structured, in-depth interviews with 27 university students from two programmes of study (Business, Science) and a range of cultural-educational backgrounds (mono-lingual and multi-lingual/cultural domestic students, and multi-lingual/cultural international students). The main aim of these interviews was to elicit students’ positive and negative experiences of intercultural activities in multiple social situations and contexts (i.e., formal, educational, on-campus and informal, social, off-campus).

All interviews were transcribed and content analysed iteratively through an inductive-deductive procedure (Chi, 1997; Mayring, 2000). Firstly, a selection of transcripts were analysed using a limited set of themes identified in prior research. Whenever topics emerged from the data that were not covered by existing themes, these were incorporated accordingly. The revised analytical scheme was then applied to another set of transcripts. This procedure was repeated several times until no novel themes emerged. In the final phase, all transcripts were re-analysed with the final version of the analytical scheme.

**Results**

The findings revealed powerful contextual affordances and constraints for students’ intercultural activities within formal, educational and informal, social contexts and highlighted the context-sensitive and interdependent nature of intercultural interactions. While agency, interdependency of group members and broader life activities emerged as influential factors for intercultural interactions in formal educational activities, intercultural interactions
in informal social encounters were best interpreted in relation to social conventions and personal interests.

Overall, intercultural activities were perceived as easier and less stressful in social, informal settings due to the absence of assessment pressure and group work related concerns. Accordingly, the goal of intercultural interactions in informal, social situations was primarily related to relaxation and fun, whereas the object of interactions in formal learning activities was chiefly directed towards successful task completion and getting a good grade. Two central tenets from activity theory, namely division of labour and multi-voicedness (Engeström, 1993; 2001) were found highly relevant for interpreting intercultural interactions in formal group learning activities. Multi-voicedness in culturally diverse groups was expressed in terms of differences in students’ interactional styles and work expectations which resulted in perceived lack of consensus regarding norms, conventions and social practices relevant for efficient task completion. Moreover, this study showed strong irregularities in the horizontal division of labour in culturally diverse groups since some members could not equally contribute to task accomplishment due to insufficient language proficiency and academic skills. Consequently, these individuals were not fully ‘functional’ in terms of the object achievement. This functional imbalance had to be compensated through additional efforts by the remaining group members –typically domestic students- which commonly triggered unfavourable emotional, motivational and cognitive reactions towards culturally diverse group work.

Regardless of differences in students’ attributed purposes of intercultural interactions in different social contexts, there was hardly any evidence that meaningful, regular intercultural relations occurred between peers from culturally diverse backgrounds. Consequently, evidence for cross-fertilisation between intercultural interactions in formal and informal
contexts was also scarce. Explanations for this phenomenon were found in the temporary nature of intercultural activities and the culturally similar close peer group. Regardless of the context in which the intercultural activity was embedded, students’ accounts revealed that the accomplishment of the activity automatically terminated individuals’ interactions and rapports. In other words, the realisation of the activity object naturally led to dissolution of the activity system even in light of positive and enjoyable intercultural interactions. The latter puzzling and disconcerting finding seemed to be related to emotional pressure for exclusive friendship exerted by culturally close peer group, which discouraged their members to seek intercultural interactions outside the group. This finding highlights the impact of the overlapping and embedded nature of social activities (Engeström et al., 1995) on individual engagement in activities since participation in one activity can interfere with participation in another activity. Further support for this point was revealed through evidence that work commitments and family obligations represented broad life activities which functioned as inhibitors for students’ full participation in academic group projects. This in turn limited the opportunities for intercultural interactions at university.

**Conclusion**

Overall, this research demonstrated the value of conceptualizing intercultural interactions as socially constituted activities nested within complex activity systems where subjects, objects and other activity systems dynamically interact (e.g., Engeström, 2001; Nardi, 1997). The combined activity theory and multiple context perspective highlighted the highly context-sensitive and interdependent nature of intercultural interactions. Moreover, it provided new insights into powerful contextual affordances and constraints generated within formal, educational and informal, social contexts. In sum, this research demonstrated the value of activity theory as a promising theoretical lens and analytical tool for understanding the
complex, interdependent and context-sensitive nature of students’ intercultural experiences as it allows for capturing this phenomenon in the complexities of daily life.
4.4 Review chapter

Culture in motivation research: A challenging and enriching contribution.


The review chapter served to examine the noteworthy contribution of culture in recent motivation research and emphasised the significance of considering the culturally constituted context from which theoretical concepts and empirical findings originated. Key motivational constructs (e.g., achievement motivation, self-determination theory, intrinsic/extrinsic motivation, attribution theory, goal theory and agency beliefs) were selected and reviewed in order to illustrate the diversity and richness of culture based theorizing as well as the range of empirical studies that have examined motivation from a cultural perspective.

The adequacy of simple dichotomous, static and de-contextualised conceptualizations of motivational and cultural constructs typically adopted in cross-cultural approaches was challenged on the ground of empirical evidence surfacing from cultural and indigenous psychology research. The latter provided solid support for questioning current theories of motivation, which chiefly originated from and were validated in Euro-American contexts. Hence, it is argued that these have only very limited potential to meaningfully explain and predict motivational orientations that emerge in cultural milieux that are substantially different from their “Western counterparts”. For a holistic understanding of within and between cultural differences, it is essential to acknowledge the moderating influences of culture on contextual, individual and interpersonal variables as well as the dynamic, situated nature of both culture and motivation. In doing so, this implies a methodological shift away from single context, cross-sectional, questionnaire studies to research that involve longitudinal designs,
combine quantitative and qualitative methods and that investigate motivation in multiple contexts. Consequently, such research will have greater potential to reveal stability and change in motivational orientations over time, within and across (cultural) contexts and to capture the significance of culturally constituted contexts for individuals’ behaviour and thinking.
This chapter draws on the major findings of the three empirical studies that addressed the role of social context in university students’ experiences of intercultural interactions on- and off-campus. These studies revealed salient and powerful contextual features for students’ intercultural experiences and development of attitudes towards intercultural interactions in formal and informal contexts. Moreover, the findings stress the complex, interdependent and contextualised nature of students’ intercultural experiences and are discussed subsequently in light of theoretical, methodological and educational implications.

5.1 Theoretical implications

In light of evidence from the empirical studies, it can be concluded that the social context plays a vital role for students’ intercultural experiences. There is converging evidence that students’ cognitive, motivational and emotional orientations towards culturally diverse learning activities and intercultural interactions more broadly vary depending on specific contextual characteristics within which these emerge. Hence, findings stress the significance of contextual affordances and constraints (e.g., Greeno, 1998) for individual participation in social activities and emphasize the situated nature of behaviour, cognition and meaning (Barab & Plucker, 2002). In line with situative and sociocultural perspectives (e.g., Greeno, 1998; Lave, 1993; Pintrich, 2000; Turner & Meyer, 2000; Volet, 2001), it is argued that individuals’ experiences of and attitudes towards intercultural encounters cannot be conceived as separate from the social practices, activities and contexts in which they emerge. In the following discussion, three central issues relevant to explaining the reciprocal relationship between individual-in-multiple contexts are addressed in turn: the interplay between
individual and context, the importance of considering multiple layers of social context and individual participation in multiple social contexts.

The interplay between individual and context. The interrelation between individual and context is complex, multi-faceted and comprehensive as various elements at the individual and contextual level interact to co-shape individuals’ experiences and perceptions of social encounters. This complexity and individual-context interdependence was demonstrated in the empirical studies in several ways: at the class, small group and individual level.

At the class level, in particular Study 1 showed how students’ group work experiences reflected distinct class-level affordances and constraints specific to two study programmes which were interpreted in terms of task characteristics, teacher support, and how well students knew each other prior to the group activity (cohort effect). Students’ were more positive towards the completion of a group assignment under contextual circumstances that entailed structured, on-going teacher support, interdependent task features and a high degree of familiarity among group members. On the contrary, students’ experiences of a group project embedded in a learning context where the contextual elements described above were absent, were less favourable overall and developed negatively over the duration of the task.

Findings at the small group level emphasised the significance of small group configuration and the interacting characteristics of different layers of context, that is combined class and small group level affordances. The importance of small group composition was shown in Study 1 through diverging trends of culturally diverse and non-diverse groups’ appraisals of the group assignment within an identical class context. Thus, experience of a group project conducted under the same class-level affordances varied depending on whether the task was
completed in a culturally diverse or non-diverse group. This phenomenon was furthermore supported by interview insights from Study 2 and 3 where students pointed to small group characteristics such as familiarity among group members, language competency and level of academic standard which varied across group types and across classes. These issues were perceived as salient explanatory factors for more (Science) and less (Business) positive experiences of culturally diverse collaborative learning activities. Hence, students’ proximal, interpersonal group work experience at the actual group level were shaped by the combined effect of cohesiveness, communication competency and academic skills, which in turn resulted from contextual characteristics present at the more macro level of each study programme. The latter were primarily related to academic and language university entry requirements, course structure and forms of instruction. This illustrated the nested nature of multiple levels of social context as will be further addressed later on.

At the individual level, the quality of prior group work experiences, close peer group and broader life context impacted on students’ attitudes and openness towards culturally diverse learning encounters, although individual attitudes were not always directly related to own personal experiences (extended contact effect (Wright et al., 1997)). The latter was illustrated in Study 2 by students’ accounts of exchanges of rumours, gossip and negative stories in their class, which seemed to co-contribute and affect their own personal motivations and openness towards engaging in intercultural encounters and group work. This was particularly the case if negative accounts came from close peers. Hence, students’ attitudes towards intercultural experiences and culturally diverse group work more specifically seemed to be a product of own, personal prior experiences combined with accounts of close peers’ predominantly unpleasant group work encounters. The salient, powerful role of the close, culturally similar peer group for students’ attitudes towards intercultural interactions was furthermore supported by the findings from Study 3 which revealed that issues related to emotional appreciation of
group membership, friendship exclusivity and solidarity can create powerful constraints for individual participation in intercultural interactions.

Consequently, these findings highlighted how the reciprocal interplay of contextual and individual characteristics at distinct levels of the learning environment combine and produce more or less rewarding collaborative learning and relational experiences. The importance of multiple layers of context is discussed further in the following section.

The importance of multiple layers of context. The inclusion of multiple contextual layers is one key aspect of the person-in-context perspective as acknowledged by Nolen and Ward (2008). This perspective incorporates a more holistic, ecological conceptualisation of context as it considers its multiple, embedded layers. For instance, in light of the present research the macro level may embrace sociocultural societal dimensions, belief systems, and values which provide a consistent and coherent framework for the development of higher education policies, curricula and assessment practices. Embedded within this framework is the climate of specific disciplines, learning environments or forms of instruction (Volet, 2001), which played a salient role in the present research as illustrated in Study 1 and 2. For instance, cohort characteristics were frequently mentioned by students from both study programmes as explanatory factor why attitudes were more (Science) and less (Business) positive towards culturally diverse group work. The degree to which students knew each other varied substantially depending on whether the entire programme of study was completed as a cohort or whether students occasionally interacted with each other in elective units. Consequently, familiarity between students depended on the overall design of the course structure at the more macro level of the learning context. Furthermore, in this research, university entry requirements specific to each study programme formed the basis for the composition of student bodies that were characterised by diverging levels of academic and language
competencies (high in Science, low(er) in Business). For each class this generated distinct contextual affordances and constraints which affected individuals’ experiences and perceptions of group work and learning at the more micro level. Hence, the micro level was characterised by unique combinations of individuals’ cognitive, motivational, and affective orientations as they relate to the immediate social encounter and its participants, both of which are implicitly shaped by contextual factors prevalent at the macro level of context. Thus, distinct contextual levels of the social learning environment were strongly intertwined and should not be viewed in isolation if a comprehensive and holistic understanding is aspired.

Overall, this highlights the complex and interdependent nature of individuals-in-context and the nested nature of multiple layers of context. In this regard, each intercultural interaction has to be treated as a unique social encounter. Types of encounters can vary widely within and across social contexts and thus need to be investigated accordingly.

Individual participation in multiple social contexts. Inspired by educational psychology (e.g., Gurtner et al., 2001; Volet, 2001), ecological psychology (e.g., Gibson, 1979/1986; Greeno, 1998), ecological system theory (Bronfenbrenner, 1979), cross-cultural psychology (e.g., Dasen, 2003) and activity theory (e.g., Engeström, 2001), this research acknowledged the importance of the multiple social contexts individuals belong to and participate in. Findings showed that individuals are members of one or more social groups and exposed to various social contexts throughout their daily lives which in combination co-contribute to their motivational and cognitive orientations towards mixing with peers from different cultural backgrounds. As a consequence, it is the interplay of experiences gained in all of these contexts, which concurrently and continuously co-define and co-shape individuals’ knowledge, attitudes and behaviours. Once more, this emphasises the
significance of viewing individual and group processes not only in the frame of the more immediate social surrounding, but in the broader context within which they are embedded as advocated by activity theory (e.g., Leont’ev, 1981; Engeström, 2001).

For instance, Study 3 demonstrated how intercultural interactions as enacted across multiple contexts calls for an approach that acknowledges the overlapping and/or embedded nature of the multiple groups (activity systems) individuals simultaneously move between and participate in. The findings of that study revealed that it is the combined effect of the broader life context with herewith associated broader life activities and responsibilities emanating from various social group memberships (e.g. family, peers, university, work) which produce contextual affordances and constraints for participation in intercultural activities in other social contexts and related activities. For instance, in this research, off-campus work commitments and family obligations represented broad life activity systems, which served as contextual inhibitors for students’ full participation in formal academic group projects, and ultimately impacted on the group work experience of all students involved. Furthermore, findings demonstrated how students’ simultaneous membership and engagement in multiple social groups created powerful cognitive, motivational and emotional tensions which needed to be resolved at the interface of multiple collective activities. For instance, for some students, belonging to a close peer group had a detrimental effect on their openness towards engagement in formal and informal social activities with peers from diverse backgrounds, implicitly restricting and limiting individual choices and course of action. In contrast, interview insights also suggested that individual participation in social activities or diverse group work with ‘other’ peers can negatively affect relationships with culturally similar peers due to expectations of friendship exclusivity and solidarity demands. These findings illustrate how interactions and social activities in distinct contexts and groups can potentially overlap,
interact and even clash with each other, when conflicting aims and expectations are in operation.

Moreover, the incorporation of distinct social contexts provided valuable insights into how individuals appraise culturally diverse learning activities and intercultural interactions contingent on a combination of contextual characteristics within which these occurred. New insights in this regard were provided by Study 3, which revealed that students perceived mixing with peers from different cultural backgrounds in social, informal settings as less stressful and demanding than participation in culturally diverse group work. This was the case as issues related to agency and control, interdependency among group members and impact of the broader life context identified as powerful factors in the formal context played a negligible role for informal, intercultural encounters. Absence of assessment pressure and voluntary participation in informal social exchanges produced more positive emotional and motivational orientations towards intercultural interactions. Yet, when looking more closely at the informal, social context of intercultural interactions, two inhibiting issues not detected in the formal learning environments emerged: personal interests and social conventions. As a result sustained, meaningful exchanges with peers from diverse backgrounds were scarce in both formal and informal contexts, but for different reasons as each setting generated distinct affordances and constraints for intercultural relational development. These valuable insights into the context-sensitive nature of intercultural interactions could only be obtained as the phenomena under scrutiny were investigated across multiple social contexts and situations.

Depending on the combined effect of specific contextual affordances and constraints, intercultural interactions in formal and informal social contexts were perceived as positive, negative and sometimes both in relation to various dimensions of the task, as demonstrated in Study 1, and issues individually perceived as enabling or inhibiting for participation in the
social encounter as shown in Study 2 and 3. In sum, these findings highlight the multi-faceted, context-sensitive and interdependent nature of intercultural encounters and emphasise that the construct of intercultural experience cannot be construed as stable, isolated and one-dimensional.

This latter point is related to a key finding of the review chapter suggesting that when a cultural research angle is incorporated, it is strongly indicated to leave simplistic, static and dichotomous conceptualisations of culture behind. Such conceptualisations are inadequate to explain cross-cultural and –contextual variations as well as within-cultural and -contextual differences. As argued by Markus and Kitayama (1998), culture related research has to embrace process-oriented approaches that acknowledge the dynamic interdependence of multiple dimensions (e.g., cultural, cognitive, motivational, contextual), since only then can the reciprocal interplay between psyche and culture be investigated. If the aim is to acknowledge the dynamic and situated nature of culture and to demonstrate moderating influences of the cultural context on individuals’ behaviours and thinking, it is essential to constantly re-examine and question the theoretical assumptions that originated from and were validated in one distinct cultural context (i.e., mainly Euro-American).

In sum, this research suggests that the complex, interdependent and situation-specific character of students’ intercultural interactions and motivational orientations can only be fully understood, if these are investigated in various social contexts at multiple levels of context and if stable and narrow conceptualisations of motivation, culture and intercultural interactions are abandoned.
5.2 Methodological implications

Investigating students’ intercultural experiences from a multi-layered and multiple context perspective combining quantitative and qualitative methodologies provided a useful grounding to capture the complex, context-sensitive, and interdependent nature of students’ intercultural encounters and relations. The combination of quantitative and qualitative methods to examine intercultural interactions from a contextualised perspective is rather unique in the field as the majority of prior studies either used surveys or interviews – with a few exceptions (e.g., Montgomery & McDowell, 2009; Myles & Cheng, 2003; Leki, 2001; Harrison & Peacock, 2009). In any case, the role of social context for students’ intercultural experiences has scarcely been addressed in a systematic and explicit manner.

The multi-method research design (Johnson & Onwuegbuzie, 2004) allowed for the identification of meaningful patterns at multiple levels of context which were subsequently enriched by insights into individuals’ experiences in various social contexts and situations throughout their daily lives. The search for patterns and themes across social contexts was particularly valuable for developing a better understanding of how individual and contextual elements co-shaped and co-defined cognitions, behaviours and perceptions of intercultural experiences. Overall, such an approach entails considerable potential to providing a comprehensive and holistic understanding of the complexity of intercultural experiences. Yet, the current research is also characterised by a number of limitations which warrant attention.

Firstly, data sources exclusively stem from self-reports which are invaluable for rich, detailed insights, but which can be unreliable due to social desirability (Corno & Mandinach, 2004; Turner & Meyer, 2000), emotional involvement and recall error (Lincoln & Guba, 1985; Patton, 2002). The matters of social desirability and emotional involvement call for caution in interpreting the findings since the topic of intercultural interactions may involve self-
conscious thoughts and sensitive reactions. For instance, Halualani (2008) found in her research on students’ interpretations of intercultural contact that participants refused to view their friends as culturally different as this may suggest overly consciousness of culture. Halualani (2008) speculated that “this could be due to the pervasive ideology of colorblindness in the U.S. which erases and shuns any mark of ‘difference’ or ‘race’ as an attempt (albeit misguided) to equalize and neutralize intercultural relations” (p. 12). Accordingly, Harrison and Peacock (2009) in their study on UK students’ perceptions of intercultural interactions encountered strong awareness of ‘political correctness’ which was related to hesitations towards discussions of difference and anxieties in terms of ‘mindful’ and correct forms of intercultural interactions. In this research deliberate efforts were made to create an open, save and comfortable interview climate (Scollon & Wong-Scollon, 2001) to accommodate a range of positive and negative individual experiences and the researcher did not detect any occasions of hesitations or signs of discomfort to discuss the phenomena of interest. Nevertheless, it cannot be determined to which extent participants’ accounts may have been influenced by the above mentioned deliberations.

Secondly, the contextual scope of this research was limited to two distinct study programmes at one university in Australia. Moreover, the exclusivity of two courses narrowed to some extent the possibility of sampling. A further issue was the relatively small number of participants in the qualitative research component which were furthermore skewed in terms of gender and ethnicity: female participants were overrepresented and international students came from a range of cultural backgrounds. The lack of male students within Science and mono-cultural Anglo-Australian students within Business has to be noted since these students may have provided additional, valuable insights into intercultural interactions within each study context. On the other hand, it could be argued that these missing sub-groups of students do represent an empirical finding per se, furthermore suggesting particular attitudes towards
and interests in intercultural interactions. In any case, it cannot be clarified to which extent these students’ experiences and accounts may have shed a different light on the topic. Consequently, generalisability and applicability of findings to other social contexts (e.g., countries, universities, study programmes) and student groups remain open for future investigations.

Moreover, this research lacks a long-term, developmental perspective of students’ intercultural experiences and attitudes. Longitudinal studies acknowledge the time-variant nature of intercultural experiences which may develop and emerge differently over the duration of specific social encounters in various situations and social settings. Gaining systematic insight into the temporal nature of relational experiences may have promising potential to understand how intercultural relationships are initiated, sustained and terminated under specific contextual circumstances. This is supported by Rogoff (1997) who stressed the significance of investigating the long-term, developmental aspect of individual-in-context relationships rather than focusing on momentary phenomena. Such an approach would provide rich insights into the dynamic and emerging nature of intercultural relational experiences which furthermore would need to be investigated in various social contexts to acknowledge their context-sensitive character. Likewise one could obtain valuable information on transfer and cross-fertilisation of relationships across social settings.

Finally, observational insights into students’ actually displayed behavioural and intercultural relational patterns are also missing in this research. Observational data would shed light on how intercultural interactions actually play out in real-life social encounters. The examination of interactional styles and communicative patterns would contribute to a better understanding of how individuals in reality negotiate meaning and mutual understandings required for positive, rewarding and successful realisation of social encounters (e.g., Gutiérrez, 2002).
Finally, observational insights would allow for complementing, comparing and matching actually displayed individual and group behaviours in intercultural activities with quantitatively detected patterns and individually perceived experiences and interpretations of these encounters gained through self-report data.

5.3 Educational implications

Evidence of the complex, interdependent and contextualised nature of students’ intercultural experiences in formal and informal social contexts entails important consequences from an educational perspective. These have promising potential to generate a starting point from which universities and staff can improve design and implementation of learning opportunities that encourage, facilitate and enhance intercultural learning and interactions for all students.

It is well known that the presence of culturally and socially diverse student bodies on campuses does not automatically and naturally lead to meaningful intercultural exchanges (de Vita, 2005; Robertson et al., 2000; Volet & Ang, 1998). In this work the lack of intercultural interactions and consolidation of culturally similar peer groups were clearly evident through students’ experiential accounts of intercultural everyday encounters at university and off-campus. Paucity of intercultural contact consistently existed across study programmes, student groups and social context (formal, informal) as demonstrated in Study 2 and Study 3 of this research. Regardless of contextual conditions, deliberate, intentional intercultural exchanges did not seem to emerge naturally and were not viewed as part of individuals’ daily experiences.

This suggests that successful, ongoing and voluntary intercultural interactions on multicultural campuses necessitate careful, mindful and deliberate development and implementation of continuous opportunities for intercultural exchange within and outside the classroom. A
particular concerning finding of this research were students very few, marginal references to tasks or group work that purposefully incorporated a cultural dimension. As a result, there was a sense that students perceived culturally diverse group work as inadequate for learning about culture or fostering intercultural competencies. Yet, it is only through meaningful intercultural interactions that positive educational outcomes such as increased intercultural competence and cross-cultural sensitivity are fostered (Bruch & Barty, 1998; Brunner, 2006; Dunstan, 2003). More precisely, it is expected that intercultural interactions will merely be perceived as academically relevant and personally rewarding for students if they constructively draw on cultural diversity as a valuable classroom resource.

Internationalisation of curricula (e.g., de Vita 2007; Leask, 2001; 2009; Otten, 2003) is an appropriate tool to foster intercultural competency development and positive interactions between peers from different cultures. Research findings from Study 1 and 2 implicitly point to the value of designing tasks which incorporate cultural dimensions of the profession, which are characterised by a high degree of interdependence among group members, which purposefully capitalise on students’ background knowledge and which are embedded in authentic, meaningful learning scenarios. This is supported by van der Wende (2000), who argued that a successful interplay between culturally diverse student populations and intercultural learning on university campuses can only occur through cautiously and thoroughly planned and monitored interactive learning activities. Consequently, close, structured teacher support to continuously monitor group processes can ensure a positive and rewarding learning environment responsive to the needs and demands of culturally diverse groups. The critical nature of teacher support was shown in Study 1 as students perceived diverse group work more positively when ongoing and structured guidance was incorporated in the process of task completion. Moreover, perceived passivity among group members and imbalance of participation in and contribution to culturally diverse groups as frequently
addressed by Business students in Study 3 could be overcome through deliberate, intentional encouragement and incentives for active participation provided and monitored by the teacher. This is consistent with de Vita (2000) who stressed teacher responsibility for raising students’ awareness of the significance of all members’ genuine efforts to contribute to the task.

Yet, in order to be sensitive to and to efficiently deal with possible challenges and problems arising in diverse group work and intercultural interactions in general, teaching staff need to be trained and skilled. Culturally sensitive teaching requires a sound understanding of the cultural foundations of knowledge within specific disciplines (Leask, 2009), instructional methods that foster respect for cultural differences and address variant learning styles (Hurtado, 1996), and a general ability to manage student diversity in the classroom (Volet, 2004).

Further relevant findings of this research were insights deriving from Study 2 and 3, which highlighted assessment as a critical inhibiting factor for participation in culturally diverse group work, to the point of acting as a salient explanatory factor for rather negative attitudes towards intercultural interactions in formal, group assessed projects. Evidence of negative attitudes towards intercultural group work when tasks were graded was also found in other studies, for instance by de Vita (2002) and Summers and Volet (2008). Consequently, this suggests more deliberate efforts to encourage informal, social contacts between peers from diverse backgrounds outside class, free of assessment pressure. This becomes even more important in light of research suggesting a link between social, informal and the more formal classroom learning (e.g., Montgomery, 2010). Therefore, deliberate efforts to encourage more informalised intercultural learning encounters but integrated in the overall course structure would be valuable. Hence, these could become an intrinsic part of ‘normal’ university life with promising potential to foster intercultural interactions on campus. Leask (2009) argued
that enhanced interactions between culturally diverse student groups are reliant on the design and implementation of both formal and informal curricula. Only if both curricula incorporate, encourage and reward participation in intercultural activities can intercultural interactions become a significant outcome of internationalised higher education.

Besides, informal, social intercultural contact may have more scope for relational development on a social, interpersonal level as the focus shifts away from task completion towards socialising in the first place. For instance, peer pairing (e.g. Pritchard & Skinner, 2002; Quintrell & Westwood, 1994), international cultural events (e.g, Klak & Martin, 2003) and cross-cultural lunches (e.g., Leask, 2009) may contribute to creating university environments that foster intercultural exchange between all students. Such strategies may induce a sense of familiarity among culturally diverse peers with beneficial effects on students’ general attitudes towards intercultural interactions as revealed in Study 2.

The internationalisation of formal and informal curricula promises to enable all students to understand and appreciate the purpose and value of intercultural interactions and competencies as an integral element of their profession and life in general – but even more so if these are fostered through a variety of continuous interactive and collaborative opportunities (Leask, 2009; Volet & Ang, 1998). This would require the design of courses and study programmes which embrace the facilitation and development of all students’ intercultural competencies as inherent constitutive components of tertiary education (de Wit, 1995; Otten, 2003; de Vita 2007) from the beginning to the end of their university experience.
6. FUTURE RESEARCH DIRECTIONS

The present set of studies exemplifies an approach to studying intercultural interactions from a multi-layered, multiple contexts and activity theory perspective. This research needs to be taken as exploratory in nature, thus calling for further studies in different host cultural and educational environments and with students from different socio-cultural backgrounds. A range of issues relevant for future research emerged from the findings. These are outlined below, with conceptual ideas addressed first followed by methodological implications.

First, future research should explore how the underlying cognitive, affective, motivational and relational dynamics play out in students’ intercultural interactions across multiple situations and daily encounters. The present study revealed puzzling findings regarding cross-fertilisation between intercultural encounters across social contexts (from formal to informal and vice versa), which could not be fully explained. Hence, the dynamics and processes of cross-fertilisation in intercultural relational development are not well understood and represent a significant area for further exploration. Concepts from transfer research (e.g., Pea, 1987; Salomon, & Globerson, 1987; Volet, 1999) may be useful to explore the nature, degree, and appropriateness of transfer of relationships across social settings, since that research has stressed the significance of individuals’ cognitive, motivational, and emotional capacity to adapt social processes to the contextual characteristics of a new setting or situation.

Second, in this research the close peer group emerged as a significant decisive element for intercultural exchange between peers from diverse backgrounds. The significance and role of the close peer group for intercultural interactions and development of attitudes will need greater attention in further investigations. Hence, future research on students’ intercultural
relational development (e.g., Gareis, 1995; Gudykunst & Shapiro, 1996) will benefit from attending to the ways in which culturally similar peer groups influence cognitive, motivational and affective orientations towards intercultural interactions. More specifically, future research should focus on how individuals deal with and resolve potentially conflicting interests associated with specific groups and activities. In addition, tentative insights from interviews in this study suggest that age/maturity and gender would benefit from further investigation. Although these two aspects were not specifically explored in the present research data revealed that peer pressure and peer group relevance for individuals’ attitudes towards intercultural interactions varied with age and across gender. Age- and gender-specific intercultural mixing patterns were also found in Rosenthal et al.’s (2007) study on social connectedness between international and domestic students at an Australian university. Age and maturity were also found to be critical factors for relationship development in Montgomery’s (2010) research. Hence, further investigation of these issues seems advisable for gaining a more fine-grained picture of the factors contributing to intercultural contact on- and off-campuses.

Another interesting issue, which has not yet been fully investigated in the context of intercultural interactions is the significance of bi-cultural identity (e.g., LaFramboise, Coleman, & Gerton 1993; Phinney & Devich-Navarro, 1997) and social identity complexity (Roccas & Brewer, 2002) for individuals’ openness and motivation towards mixing with culturally diverse peers. Although these issues were not specifically addressed in the present research, qualitative insights regarding intercultural interactions reveal that students with bicultural backgrounds may view intercultural interactions and/or negotiating cultural issues as a normal part of daily life. Consequently, studying biculturalism could contribute to a better understanding of how multiple cultures can shape behaviours and attitudes (e.g., Haritatos & Benet-Martinez, 2002). Such a research angle could provide a better understanding of how
individuals’ subjectively define and make sense of the interplay of multiple group identities which, ultimately, may explain cognitive, affective and motivational orientations towards ‘others’ from culturally dissimilar backgrounds.

The investigation of these conceptual ideas would need to meet certain methodological conditions in order to having the potential to adequately grasp the dynamic, situated and interdependent nature of intercultural interactions. From a contextualised and developmental perspective the use of mixed methods approaches (Johnson & Onwuegbuzie, 2004) is clearly appropriate, especially if the aim is to gain a more holistic and comprehensive understanding of the context-sensitive, interdependent and complex phenomenon of intercultural interactions. Hence, intercultural interactions need to be investigated over time and in various social contexts using a combination of qualitative and quantitative approaches. The collection of observation and process data in multiple social contexts also has the potential to unveil various forms of intercultural relational development and diverse patterns of engagement and participation in intercultural encounters. This is of particular interest as a range of studies have shown that students are not always willing to participate in collaborative learning tasks in culturally mixed groups (e.g., Ippolito, 2007; Montgomery, 2009; Volet & Ang, 1998) and intercultural interactions more broadly (e.g., Halualani et al., 2004; Kudo & Simkin, 2003; Toyokawa & Toyokawa, 2002). To date, students’ actual interactions, behaviour and engagement in group work, have not been fully investigated and, hence, are not well understood.

Research incorporating these issues would provide a valuable starting point for a more holistic and comprehensive understanding of how culturally diverse groups of students view and perceive the phenomenon of intercultural interactions, and how these students’ actually engage in intercultural encounters in their daily lives.
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Significance of context in university students’ (meta)cognitions related to group work: A multi-layered, multi-dimensional and cultural approach

STUDY 1
Significance of context in university students’ (meta)cognitions related to group work: A multi-layered, multi-dimensional and cultural approach

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Abstract

This article examines the significance of context in university students’ development of (meta)cognitions related to a specific group assignment. For this purpose context was conceptualised at two levels: class (Business, Science) and small groups within class (culturally diverse, non-diverse). Diverging trends in (meta)cognitions emerged at class and small group levels, which reflected affordances and constraints of the learning contexts. The value of incorporating a cultural angle in research on group work was confirmed. Overall, the findings highlight the usefulness of a multi-layered learning contexts design for enhancing our understanding of the developing nature of students’ multi-dimensional experiences of group work.

Keywords: Collaborative learning; Metacognition; Multi-layered contexts; Group work; Cultural diversity

1. Introduction

Small group work is a key component of academic learning with strong theoretical and empirical support for its cognitive and motivational benefits (Dillenbourg, Baker, Blaye, & O’Malley, 1996). Productive engagement in peer interactions, collaborative reasoning and co-construction of knowledge lead to cognitive gains (Barron, 2003; van Boxtel, van der Linden, & Kanselaar, 2000) and are therefore effective tools for promoting higher level learning (Amato & Amato, 2005). For Boud, Cohen, and Sampson (1999) and Gupta (2004) there are many benefits of peer learning at university, including the facilitation of generic learning outcomes, and the promotion of skills related to lifelong learning, team work, communication, critical reflection, and self-directed learning. Moreover, there is evidence that participation in small group activities can enhance student performance (de Vita, 2002).

Yet, despite all the potentially beneficial effects of group work in academic learning, there is a parallel, strong and converging body of literature documenting students’ negative perceptions (Pauli, Mohiyeddini, Bray, Michie, & Street, 2007; Volet & Mansfield, 2006) and experiences of socio-emotional as well as socio-cultural challenges (Burdett, 2003; Garcia-Prieto, Bellard, & Schneider, 2003). Potential problems include unmotivated peers (Bourner, Hughes, & Bourner, 2001), communication difficulties (Salomon & Globerson, 1989), challenges in the management of workload (Feichtner & Davis, 1985) and frustration with group assessment (Livingston & Lynch, 2000). There are, therefore, a multitude of reasons why group work can result in less positive processes and outcomes for participants.

Furthermore, research carried out in English-speaking countries hosting large numbers of international students (typically the United Kingdom, USA, and Australia) has revealed that local and international students display strong tendencies to study, and form small groups, with members from the same or similar ethnic background (Ledwith, Lee, Manfredi, & Wildish, 1998; Trice, 2004; Volet & Ang, 1998). This is concerning as group learning activities create natural opportunities for intercultural learning, which is of critical
importance for preparing students for a globally diverse workforce, especially in professional fields that demand well-developed communication and interpersonal skills for working with culturally diverse customers, clients or patients.

1.1. Cultural diversity and group work

The issue of culturally heterogeneous/homogeneous group work has attracted the interest of many researchers (Hobman, Bordia, & Gallois, 2004; de Vita, 2002; Watson, Johnson, & Merritt, 1998) but the findings remain inconclusive. For instance, while Ledwith et al. (1998) and Robbins and Frey (2007) found that homogeneous groups tend to be happier, have less conflict, and report higher levels of motivation and success, Banks and Banks (2005) as well as Schollery and Schullery (2006) highlight the positive outcomes of culturally diverse group work. Furthermore, while Wright and Lander (2003) found concerning deficits in culturally diverse groups’ mutual interactions and communication patterns, de Vita’s (2002) and Watson, Johnson, and Zgourides’ (2002) research provided empirical support for the benefits of participation in diverse groups, since these were found to perform higher on team project tasks in comparison to non-diverse groups. It is assumed that culturally diverse small groups represent social forums where differences in prior knowledge, experiences and understandings are stretched further. This provides increased opportunities for members to question each other’s assumptions, which is an essential feature of productive collaborative learning environments (Cohen, 1994; King, 1992).

Furthermore, such groups may also be expected to experience greater diversity in communication styles, which has the potential to foster the need for more cognitive elaboration during exchange of ideas, another learning-enhancing activity (van Boxtel et al., 2000). But the extent to which diverse groups are able to capitalize on these learning opportunities and do not feel overwhelmed by socio-emotional and socio-cultural challenges has received little empirical attention. More fine-grained pictures of how affordances and constraints shape students’ group work attitudes in culturally diverse group configurations are needed for a richer and deeper understanding of the context-sensitive nature of group work experience. Overall, it is evident that a broad range of factors can impact on students’ group work experiences and ultimately on their attitudes towards group work, pointing to the criticality of conceptualising group work as a multi-dimensional and contextualised experience.

1.2. Attitudes towards group work

The notion of attitude towards group work does not represent a unidimensional construct but rather a composite of inter-related dimensions. Yet, empirical studies have tended to focus on specific dimensions of group work, such as assessment (Gatfield, 1999), cognitive and psychological factors (Cantwell & Andrews, 2002), or affective and motivational outcomes (Boekaerts & Minnaert, 2006), with limited attention to the multi-dimensional aspects of students’ experiences of group work in combination, an issue we have attempted to address in our own work (Volet, 2001a). Our instrument for measuring Students’ Appraisals of Group Assignments (SAGA) is conceptually grounded in theories and research that underpin each dimension (e.g., the cognitive scale contains items reflecting Piagetian and Vygotskyan concepts) but also incorporates ideas that have emerged from descriptive studies of students’ own accounts of learning in group projects (Bosworth & Hamilton, 1994; Burdett, 2003). The main idea is that the activity of group work is multi-faceted and includes not only cognitive but also motivational, affective and social dimensions, with an underlying assumption that each dimension may play out differently in relation to other variables of study. This was found to be the case in regard to attitudes towards group work in general (Volet, 2001a) as well as appraisals of a specific group assignment (Wosnitza & Volet, 2009). In this study, in addition to students’ group work appraisals we also included measures of (meta)cognitions and final reflections on group processes to gain a better and more holistic understanding of the collaborative enabling or inhibiting nature of the small group context.

1.3. Context and group work

The literature on cooperative learning widely acknowledges that cognitive, motivational and affective benefits of group learning activities are more likely to be achieved under specific contextual circumstances. Important elements to promote successful collaborative learning identified by a range of researchers are, for example, task interdependence, teacher support, task instructions and small group characteristics (Cohen, 1994; Johnson & Johnson, 1990, 1999; Johnson, Johnson, & Smith, 1998). Learning environments incorporating these key elements are expected to foster the active involvement of all students in the learning process and in turn lead to higher cognitive gains, motivational levels and student satisfaction.

The positive implications of task interdependence on group communication and collaborative actions have been supported by a range of studies on group work (van den Bossche, Gijseelaers, Segers, & Kirschner, 2006; Gillies, 2003; Wageman, 1995). While the benefits of teacher support are also well documented in the literature (Lizzio & Wilson, 2005), these authors found that intra-group characteristics (e.g., collaboration, equity) may play an even bigger role for task and socio-emotional processes than teacher support. Research on the significance of task features has pointed to group size as a relevant contextual characteristic. Johnson et al. (1998) found groups between two and four members to be more effective than larger groups in promoting meaningful and rewarding face-to-face interactions, a finding that has been validated by other empirical work (Gillies, 2003; Lou et al., 1996).

It can also be argued that the effects of cooperative learning on achievement are strongly mediated by the cohesiveness of the group, leading to the idea that students may be more inclined to help each other when the group has developed
a team atmosphere (Johnson et al., 1998; Slavin, 1996). Based on students’ accounts (Montgomery, 2009; Volet & Ang, 1998), this is more likely to happen in situations where students know each other well before working together on a group activity. This is supported by Campion, Papper, and Medesker’s (1996) as well as Wooten and Reed’s (2000) research, which documented how student acquaintanceships prior to task commencement played an important role for relationship and group cohesion, especially when time was limited.

In light of the above, it can be expected that learning environments, which incorporate several key positive elements, will afford more productive peer interactions and higher cognitive, motivational and affective outcomes. Accordingly, this study adopted a holistic perspective on context, one that does not dissociate the impact of each of its components on students’ engagement in group learning processes, as has often been the case in prior research.

Finally, most of the research on group work has examined students’ experience in a single context, the focus being on the experience of multiple small groups in a single class. It is argued that such an approach presents limitations to understanding the complex and interacting nature of the personal, social and contextual elements that impact on emerging group dynamics and students’ experiences. In contrast, we propose that students’ experience of group work be conceptualised as multi-dimensional and contextualised and that it be captured as evolving over time. The study reported in this paper reflects this proposal as it focuses on students’ developing multi-dimensional (meta)cognitions related to a current real-life situation, it refers to the unique combination of individuals’ (meta)cognitions, expectations, motivations, and emotions that make up students’ experience of learning – and multi-level approach to understanding macro- and micro-level influences on students’ (meta)cognitions. In regard to research on group work, the macro-level may refer to socio-cultural societal dimensions, belief systems, and values which provide a consistent and coherent framework for the development of higher education policies, curricula and assessment practices. Embedded within this framework is the socio-cultural climate of specific disciplines, learning environments or forms of instruction. At the micro-level is the subculture and social surroundings of the immediate learning activity that students are currently involved in. With regard to a group learning situation, it refers to the unique combination of individuals’ (meta)cognitions, motivations and emotions as they relate to the immediate task, group interactions, peer contributions, and emerging group dynamics.

The small group environment, therefore, represents the most specific level of students’ learning experiences. It captures the immediate, current socio-cultural elements of the activity, including the group climate, peer engagement, roles and degree of social support for the completion of the particular task at hand. Each learning encounter is thus located within a unique configuration of socio-cultural and educational influences, which are mediated by individuals’ dispositions, experiential backgrounds and appraisals of the current situation.

The micro-level context of group learning activities is particularly challenging and demanding as students are requested to coordinate their individual habitualised behaviours in a group of peers. Consequently, challenges may even increase when students are coming from diverse socio-cultural and educational backgrounds which may lead to diverging expectations and appraisals of such learning contexts. As argued by Gutiérrez and Rogoff (2003), from a socio-cultural perspective it is critical to consider context as an overarching, holistic framework of combined characteristics rather than to focus on specific isolated characteristics of context assumed to cognitive approaches with situative ideas deriving from Greeno’s (2006) and Lave and Wenger’s (1991) work. However, while situative approaches focus on activity systems (Greeno, 2006) or communities of practices (Lave & Wenger, 1991) and are predominantly concerned with social practices such as negotiation and co-construction of meaning, the person-in-context perspective primarily looks at intra-individual cognitions emerging from participation in, interpretation and appraisals of social contexts and its distinct features.

According to Nolen and Ward (2008) one important extension of the person-in-context perspective has been the incorporation of a more holistic, ecological conceptualisation, taking into account multiple, embedded layers of context. In other words, Volet’s perspective integrates self and context into a single framework, where (meta)cognitions related to an immediate activity are located at the «dynamic experiential interface within a broader, multi-level perspective of person and context» (Volet, 2001b, p. 68). Volet’s framework is a combination of multi-dimensionality — referring to the range of (meta)cognitions, expectations, motivations, and emotions that make up students’ experience of learning — and multi-level approach to understanding macro- and micro-level influences on students’ (meta)cognitions. In regard to research on group work, the macro-level may refer to socio-cultural societal dimensions, belief systems, and values which provide a consistent and coherent framework for the development of higher education policies, curricula and assessment practices.

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cause or result in specific outcomes. This was the approach adopted in the present study. Accordingly, the two levels of context were identified and their respective significance examined but the specific characteristics of each level were not isolated with a view to identifying causes for the development of students’ (meta)cognitions.

1.5. Multi-layered learning contexts

Understanding students’ subjective experience of a real-life group work activity as emerging within multi-layered contexts is challenging. In formal learning environments one obvious level of investigation is the class level. For collaborative learning, however, context has to be examined further at the level of small groups within class. A multi-layered context design offers the opportunity to investigate the significance of small group membership at a level closer to students’ actual experience of group work. In the present study, the addition of a cultural dimension enriched the breakdown of small groups by operationalising them in terms of culturally diverse and non-diverse group compositions.

The focus on culturally diverse/non-diverse small groups within classes was assumed to provide a more fine-grained, contextualised account of students’ learning experiences. Hence, such a design enables the investigation of how students’ group work appraisals are attuned to the broad contextual features of a particular class setting, in combination with how these individuals’ appraisals are sensitive to affordances and constraints created at the small group level, embedded within a particular class context.

Finally, in order to establish fully the respective, interacting or combined influence of different levels of context on students’ multi-dimensional experience, it is essential to consider students’ (meta)cognitions about their group assignment as they evolve over a period of time within their multi-layered context. In combination, the multi-dimensional and contextual approach is expected to reveal how students’ subjective experiences of multiple dimensions of group work develop within multiple levels of contexts.

1.6. The present study

The overall aim of the present study was to explore the significance of context on students’ developing cognitions related to a specific group assignment. For this investigation, context was conceptualised at two levels, class and small groups embedded within class. In turn, (meta)cognitions were taken as multi-dimensional appraisals measured at the beginning and the end of the group activity and as reflections on group processes at the end.

1.6.1. Research questions

Two research questions were generated for this study, each focusing on a distinct contextual level. The first addressed students’ group work experiences and appraisals at the class level and the second students’ more contextualised group work experiences at the small group level. With reference to the person-in-context perspective, class reflects the macro level, while small groups represent an instance of the micro level of context. The research questions were as follows:

How do students’ (meta)cognitions related to a group assignment develop over the duration of that activity within a particular class context and how does such development vary between classes?

How does the development of (meta)cognitions vary, depending on whether the assignment is completed in a diverse or non-diverse small group embedded within a particular class context?

1.6.2. Hypotheses

A number of predictions related to class as context, as well as in relation to diverse/non-diverse small groups within class were generated based on the characteristics of the natural setting of the study (specified in Section 2.1 Participants and class contexts) and support from the literature.

At the class level, it was expected that an overall instructional environment that cumulated elements conducive to productive group work would lead to more favourable appraisals of the activity after task completion than an instructional environment where this was not the case (Hypothesis 1). Based on the literature, important elements believed to promote successful and rewarding group learning are: (a) interdependent task characteristics, (b) teacher support, (c) small group size, and (d) students’ familiarity with each other; favourable appraisals could refer to (meta)cognitive, motivational, affective and interpersonal aspects of the group activity. This hypothesis is consistent with empirical research (van den Bossche et al., 2006; Wageman, 1995) which supports the beneficial implications of task and outcome interdependence with regard to positive group communication and collaborative actions. Furthermore, Lizzio and Wilson (2005) identified contextual conditions such as staff support as highly beneficial to students’ group work experiences and additionally revealed that intra-group characteristics (e.g., collaboration, equity) play an even bigger role for task and socio-emotional processes than teacher support. Finally, previous research strongly supports that students’ acquaintance prior to task commencement provides an early baseline of relationship cohesion and, thus, rewarding and positive collaborative experiences (Campion et al., 1996; Wooten & Reed, 2000).

At the level of diverse/non-diverse small groups within class, it was expected that when the overall instructional environment cumulated elements conducive to productive group work no differences between diverse and non-diverse group work appraisals would be found (Hypothesis 2). In contrast, it was expected that when the overall instructional environment consisted of less enabling collaborative contextual conditions, diverse groups composed of students coming from diverse backgrounds may experience the group assignment as more challenging and demanding than the groups composed of students from similar cultural backgrounds (Hypothesis 3).

Support for Hypotheses 2 and 3 could only be tentative, since prior research on culturally diverse and non-diverse small groups has provided conflicting evidence in terms of its...
beneficial or detrimental implications (Ledwith et al., 1998; Robbins & Fredendall, 2001; Schullery & Schullery, 2006). Furthermore, Sweeney, Weaven, and Herington (2008) as well as Li and Campbell (2008) found that interdependent task features as well as availability of adequate teacher support are critical factors for positive multicultural group work experiences, which lends support to our expectations regarding small groups in the context of a class with a less enabling instructional environment.

2. Method

2.1. Participants and class contexts

Participants were two classes of second year university students (Science N = 81, Business N = 88). The naturalistic settings of these two classes were chosen as their respective instructional environments displaying the characteristics of more (Science) and less (Business) enabling collaborative contextual conditions. Common across classes were: a mandatory, self-managed group assignment focusing on a case study that attracted a group mark; self-selected composition of small groups; and out-of-class completion of that assignment over approximately seven to eight weeks. Different across classes were some features of the particular group assignment (degree of task interdependence), group sizes as well as the nature and degree of teacher support. At the broader level, the two study programmes in which the two classes were embedded also differed in structure. Science students formed a cohort studying exactly the same units and thus were expected to know each other well, while Business students came from a larger student population that studied core and elective units, and thus were not expected to know each other as well.

The Business class assignment required students to analyse a marketing case and prepare a written report, to be presented in class. The task allowed students to divide up the labour into distinct components after the first or second meeting. After that, each student could continue working on their assigned component independently until the end of the semester, when all individual contributions were merged to produce the required report. In this class, the need for group members to engage in collaborative learning processes, such as discussing ideas, explaining understanding and sharing perspectives, did not appear to be essential for successful task completion. In terms of teacher support, Business students had the opportunity to discuss issues related to their assignment with their tutor either following the weekly tutorial or by seeking an appointment during consultation time.

The Science class assignment required students to analyse a paper-based clinical case and prepare an oral presentation. A stated aim of this exercise was for student groups to undertake self-directed learning whereby each student had to contribute to the identification and achievement of group learning objectives relevant to the particular case being studied, and to undertake research on a specific aspect of the case. This was students’ first exposure to a complex, authentic clinical case, and the need for group members to engage in collaborative learning processes to complete the assignment appeared substantially higher than for the Business case study. The conceptually demanding nature of this assignment was recognised by teachers themselves. Accordingly, students were offered structured assistance, in the form of two compulsory meetings with their teachers several weeks apart during the assignment. These meetings aimed at ensuring satisfactory group processes and progress. Additional consultation with the teacher was available.

2.2. Small groups (group type) as embedded contexts within class

In both classes students self-selected into small groups to complete the group assignment. Group sizes varied between three and four members in the Business class and five and six members in the Science class. To examine the significance of experience of group work in diverse or non-diverse groups, students were classified into two categories, those with previous cultural experiential background, which was conceptualised as a combination of international schooling and experience with multiple languages and those without such experiences. This enabled the identification of two types of small groups on the basis of their membership diversity profile. The non-diverse groups (Business N = 14; Science N = 6) comprised peers who had completed their entire schooling in the country in which the study was conducted. These students were all permanent residents and predominantly monolingual. In contrast, diverse groups (Business N = 15; Science N = 8) comprised some peers with the above characteristics but where at least 50% of the group members were peers with extensive international experience. The latter had completed the majority of their schooling in another country, were typically permanent residents of other countries and predominantly multi-lingual. The approach to diversity in the present study is, therefore, consistent with Gutiérrez and Rogoff (2003) who argued against the overly deterministic and static attribution of students to ethnic or national group membership, as this does not provide any insight into students’ personal histories of engaging in intercultural experiences.

2.3. Research design

The study was conducted in the natural setting of the two classes and small groups within these classes (i.e., two between-subject factors) with beginning and end measurement (i.e., time as within subject repeated measure). The main dependent measures (all repeated) were students’ appraisals of group assignments (SAGA instrument), (meta)cognitions (selection inspired by the work of Efklides, 2006) and general view of group work.

2.4. Procedure — instruments

All students who agreed to participate (N = 169) completed a matched questionnaire at the beginning and end of their group assignment (77% response rate of overall target student
population). Students’ appraisals of the specific group assignment, General View of Group Work (pre, post), and (meta)cognitions (prospective, retrospective) were elicited on both occasions except for Task Difficulty which was only measured after task completion. At the beginning, students also rated how well they knew their group members. At the end, students were requested to reflect on their group processes and rate their perceptions of Group Efficacy, Group Cohesion and the Role of the Group in helping them achieve what was important to them.

2.4.1. Students’ Appraisals of Group Assignments (SAGA)

The SAGA instrument (Volet, 2001a) is based on principles of Rasch measurement. It measures students’ multi-dimensional appraisals of a group assignment. There are two versions of the instrument: one contextualised and one de-contextualised. The SAGA-Contextualised version, used in this study, contains six scales (5 items each), which elicit students’ appraisals of the Cognitive Benefits, Motivating Influence, Affect, Management, Group Assessment, and Interpersonal dimensions of their current assignment (thus contextualised to that task).

Based on the assumption that appraisals are sensitive to contextual conditions, this instrument is designed for repeated testing, to investigate stability and change over time, within each dimension. Respondents indicate their level of agreement with each item statement on a 4-point Likert-type response scale ranging from 1 (strongly disagree) to 4 (strongly agree). Sample items (pre-task) are as follows: ‘‘Interacting with peers for this group assignment will enrich my knowledge and understanding’’ (Cognitive Benefits), ‘‘It will be highly motivating for me to work on this assignment with a group of peers’’ (Motivating Influence), ‘‘I am angry that this assignment has to be completed in a group situation’’ (Affect), ‘‘Doing this assignment as a group will be less time consuming than if I did it by myself’’ (Management), ‘‘Group assessment is unacceptable for this assignment’’ (Group Assessment), ‘‘In this assignment it will be easy to create a group atmosphere where everyone feels comfortable to express their views’’ (Interpersonal).

One measure from the SAGA-General (de-contextualised) version was also used in this study. The Cultural Mix subscale (5 items) measures students’ general attitude towards assignments being done in groups comprised of both international and local students. Respondents indicate their level of agreement with each item statement on a 4-point Likert-type response scale ranging from 1 (strongly disagree) to 4 (strongly agree). A sample item is ‘‘Encouraging local and international students to mix for group assignments is an excellent idea’’.

SAGA-Contextualised subscales were analysed together and the Cultural Mix subscale separately according to the principles of Rasch measurement, using data from the present study. The software program, RUMM2020 (Andrich, Sheridan, & Luo, 2005) provided psychometric information about the validity and reliability of the subscales. The Rasch analysis places estimates of item difficulty/severity and person ability (or level of a trait such as attitude) on the same hierarchical response scale. Each scale is standardized with a mean of zero for the items’ difficulties, thus the generation of positive and negative scores for individuals as the item difficulties are constrained to have a mean of 0. In terms of validity, the Rasch analyses generated overall fit statistics item-trait chi squares ranging from 26.86 for Cognitive Benefits ($p = .13$, $df = 25$), 35.72 for Management ($p = .07$, $df = 25$), 40.46 for Assessment ($p < .01$, $df = 25$), 48.12 for Affect ($p < .01$, $df = 25$), 66.35 for Motivating Influence ($p < .001$, $df = 25$), 80.78 for Interpersonal ($p < .001$, $df = 25$), and 66.78 for the de-contextualised measure Cultural Mix ($p < .01$, $df = 37$), which indicate overall fits of the data to the model.

The estimates of reliability, equivalent to Cronbach’s alphas, ranged from .65 for Management (reasonable), to .69 for Cognitive Benefits and Interpersonal (good), to .74 for Group Assessment, .76 for Motivating Influence (very good), .81 for Affect and .85 for Cultural Mix (excellent). It should be specified that beginning and end appraisals had to be analysed together, using the RUMM program, in order to obtain individual pre- and post-scores based on the same hierarchical response scale.

2.4.2. Other measures

The other measures used in the present study were single-item questions to be rated on a 4-point Likert-type scale. Specifically, (a) for Knowing Each Other (‘‘How well did you know the other members of your group before this group assignment?’’) the response scale ranged from 1 (not at all) to 4 (very well); (b) for Interest in Task (‘‘How interested are/were you in the clinical case study (Science/compan cases) You have to analyse?’’), (c) for Task Difficulty (‘‘How difficult did you find the clinical case study (Science/ company cases) ?’’), and (d) for General View of Group Work (‘‘What is your current view of group projects at university?’’) the response scale ranged from 1 (not interesting/difficult/positive) to 4 (very interesting/difficult/positive).

For reflections on group processes, the response scale (a) for Group Efficacy (‘‘How confident are you of the group’s ability to do an outstanding job?’’), (b) for Group Cohesion (‘‘To what extent did your group work together as a team to plan what to do, and to resolve any difficulties along the way?’’) ranged from 1 (not at all) to 4 (very), and (c) for Role of the Group (‘‘What role did the group play in helping you achieve what was most important to you?’’) it ranged from 1 (group played a negative role) to 4 (group played a positive role).

2.5. Analyses

All analyses, at both class and small group levels, were performed using group means in order to address the issue of interdependence of individuals within small groups. Using group means was necessary even for the analysis of pre-task questionnaire responses, since that questionnaire was administered before students actually commenced the group activity but after they had formed their respective small groups. Group means were obtained by aggregating individual scores for each small group. Only the follow-up analyses comparing local...
students’ responses in diverse and non-diverse small groups were conducted using individual scores.

While the use of group level analyses is consistent with other studies on group work (Gillies & Ashman, 2000; Oortwijn, Boekaerts, Vedder, & Strijbos, 2008), this approach has a number of disadvantages. Using groups rather than individuals as units of analysis inevitably reduces the sample size and thus precludes the use of a multi-level approach. Furthermore, using group data also substantially reduces the amount of variability found in individual data sets. As a consequence meaningful patterns that are statistically significant using analyses at individual level may not reach statistical significance using group level analyses.

In the present study, the limited sample size became a critical issue for the analyses of group type by class. Non-parametric analyses had to be used, thus reducing further the likelihood of identifying statistically significant patterns of findings. This issue and its impact will be discussed in more detail in section 3.3.

3. Results

3.1. Class as context

This section addresses the first research question, how students’ multi-dimensional appraisals of a group assignment develop over the duration of that task within the contextual characteristics of the class. Class profiles prior to commencing the group assignment, development of (meta)cognitions related to the group assignment, retrospective and reflective measures at the end of the group assignment, and general views of group work at the end of the group assignment are examined in turn.

3.1.1. Class profiles prior to commencing the group assignment

The two classes\(^1\) did not differ in regard to students’ General View of Group Work prior to the assignment ($M_{(B)} = 2.63, SD = 0.38; M_{(S)} = 2.48, SD = 0.28, t(41) = 1.27, ns$), but two differences related to the forthcoming group assignment were found. Consistent with their respective programme structures, Science students (a cohort studying exactly the same units) reported being more familiar with their group members ($M_{(S)} = 3.31, SD = 0.57$) than their Business counterparts ($M_{(B)} = 1.60, SD = 0.77, t(41) = -7.39, p < .001$, Cohen’s $d = 2.51$). Also, Science students reported greater interest in the Task ($M_{(S)} = 3.33, SD = 0.39$) than their Business counterparts ($M_{(B)} = 2.60, SD = 0.45, t(41) = -5.15, p < .001$, Cohen’s $d = 1.73$). No significant class differences were found for any of the SAGA-Contextualised subscales. The first column of Table 1 shows all pre-task SAGA-Contextualised subscales as a function of the class.

### Table 1

<table>
<thead>
<tr>
<th>Class</th>
<th>Pre-task Mean (SD)</th>
<th>Post-task Mean (SD)</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive benefits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$2.54 (0.99)$</td>
<td>$2.48 (1.34)$$ ***$</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$2.10 (0.81)$</td>
<td>$2.14 (0.86)$$ ns$</td>
<td></td>
</tr>
<tr>
<td>Motivating influence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$1.15 (1.05)$</td>
<td>$0.51 (1.26)$*</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$1.16 (0.80)$</td>
<td>$1.40 (1.38)*$</td>
<td></td>
</tr>
<tr>
<td>Affect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$2.02 (1.38)$</td>
<td>$1.36 (1.55)$*</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$1.87 (1.18)$</td>
<td>$2.49 (1.47)*$</td>
<td></td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$0.82 (1.02)$</td>
<td>$1.51 (1.36)$**</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$1.10 (0.61)$</td>
<td>$1.64 (1.45)$</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$0.17 (0.66)$</td>
<td>$0.13 (0.94)$</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$0.38 (0.54)$</td>
<td>$0.84 (1.12)*$</td>
<td></td>
</tr>
<tr>
<td>Group assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>$1.78 (1.02)$</td>
<td>$1.42 (1.24)$</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>$1.82 (0.70)$</td>
<td>$2.38 (1.01)*$</td>
<td></td>
</tr>
</tbody>
</table>

\(^{*}p < .05; \ **p < .01; \ ***p < .001.\)

Small groups in Business class: $N = 29$; Small groups in Science class: $N = 14$. The arrows indicate the direction of appraisal change over time ($\uparrow$ positive; $\downarrow$ negative).

3.1.2. Development of (meta)cognitions related to the group assignment

This section examines the development of appraisals of the group assignment within class, differences in development between classes, as well as retrospective and reflective measures at the end of the group assignment, and general views of group work at the end of the group assignment are examined in turn.

3.1.2.1. Development of appraisals of the group assignment within class and differences in development between classes.

Repeated measures MANOVA (Class by Time) were carried out for all six SAGA-Contextualised subscales as dependent variables. Within subjects multivariate test results revealed a significant interaction effect of Class by Time, Pillai’s trace $= .45, F(6, 36) = 4.95, p < .001$, partial $\eta^2 = .45$, as well as a main effect of Time, Pillai’s trace $= .48, F(6, 36) = 5.55, p < .001$, partial $\eta^2 = .48$. Box’s test of equality of covariance matrices was not significant, and neither was Levene’s test of equality of error variances for any of the six dependent variables.

Univariate test results revealed significant interaction effects for Class by Time for four SAGA-Contextualised
Role of group subscases: Cognitive Benefits, $F(1, 41) = 8.49, p < .01$, partial $\eta^2 = .17$; Motivating Influence, $F(1, 41) = 4.14, p < .05$, partial $\eta^2 = .09$; Affect, $F(1, 41) = 8.69, p < .01$, partial $\eta^2 = .18$; and Group Assessment, $F(1, 41) = 8.69, p < .01$, partial $\eta^2 = .18$. There was also a main effect of Time for Cognitive Benefits, $F(1, 41) = 7.03, p < .05$, partial $\eta^2 = .15$; and for Interpersonal appraisal of the group assignment, $F(1, 41) = 7.21, p < .01$, partial $\eta^2 = .15$.

Between-subjects tests showed a main effect of Class for Management, $F(1, 41) = 4.89, p < .05$, partial $\eta^2 = .11$.

As shown in Table 1, a number of significant within class differences in SAGA-Contextualised subscales from pre-task to post-task were found, revealing change in appraisals across classes that moved in opposite directions. For Science students, the change was towards more positive appraisals at the end (significant for Interpersonal, and a positive trend for all remaining SAGA-Contextualised measures), while for Business students it was towards less positive appraisals at the end (significant for Cognitive Benefits, Motivating Influence, and Affect) with one exception. Like their Science counterparts, Business students’ post-task ratings of the Interpersonal aspects of the group assignment were more positive than their pre-task ratings.

As a result of these developments, significant class differences emerged for four post-task SAGA-Contextualised subscales: Motivating Influence, $t(41) = -2.09, p < .05$, Cohen’s $d = 0.67$; Affect, $t(41) = -2.28, p < .05$, Cohen’s $d = 0.75$; Management, $t(41) = -2.17, p < .05$, Cohen’s $d = 0.69$; and Group assessment, $t(41) = -2.50, p < .05$, Cohen’s $d = 0.84$. As shown, all were in the same direction, with Science students always displaying more positive appraisals than their Business counterparts (see second column of Table 1).

### 3.1.2.2. Retrospective and reflective measures at the end of the group assignment.

A MANOVA was carried out for students’ post-task (meta)cognitions and reflections on group processes (Interest in Task, Task Difficulty, Group Efficacy, Group Cohesion and Role of the Group) with Class as between subjects factor. The results indicated a significant multivariate effect for Class, Pillai’s trace $= .53$, $F(5, 37) = 8.39, p < .001$, partial $\eta^2 = .53$, with Science students being systematically more positive than their Business counterparts. With respect to their retrospective measures Science students displayed higher Interest in the Task than their Business counterparts ($M_{(S)} = 3.23, SD = 0.44$ and $M_{(B)} = 2.45, SD = 0.44$) and lower Task Difficulty ($M_{(S)} = 2.74, SD = 0.39$ and $M_{(B)} = 3.27, SD = 0.52$), $F(1, 41) = 29.86, p < .001$, partial $\eta^2 = .42$, and $F(1, 41) = 11.34, p < .01$, partial $\eta^2 = .22$, for Interest in the Task and Task Difficulty, respectively.

Table 2 presents the means of end reflections on group processes by class, alongside the correlations with post-task SAGA-Contextualised subscales.

As shown in Table 2, Science students’ reflections on group processes were also significantly more favourable than those of Business students: higher Group Efficacy, $F(1, 41) = 24.58, p < .001$, partial $\eta^2 = .38$; higher Group Cohesion, $F(1, 41) = 4.42, p < .05$, partial $\eta^2 = .10$. These findings were consistent with Business students displaying a more negative and Science students more positive overall pattern of appraisals of their assignment at the end.

No class differences were found in relation to the Role of the Group, $F(1, 41) = 1.28$, ns. The lack of significant difference on that measure could be explained in terms of all students feeling that their group managed to complete the task, regardless of whether this was achieved as a team effort (Science) or as cooperation to divide up the labour (Business).

It was of interest whether the differences between pre- to post-task changes in students’ group work appraisals were related to differences in pre- to post-task changes in Interest in the Task (change scores were computed as post-task group mean minus pre-task group mean). It was found that change in Science students’ appraisals of Affect ($r_{(a)} = .57$) and Motivating Influence ($r_{(m)} = .60$) were correlated ($p < .05$) with change in Interest in the Task. No significant correlations were found in the Business class.

The patterns of correlations between post-task (meta)-cognitions, reflections on group processes and post-task

<table>
<thead>
<tr>
<th>Role of group</th>
<th>Reflections on group processes</th>
<th>SAGA-Contextualised subscales</th>
<th>M (SD)</th>
<th>Cognitive beliefs</th>
<th>Motivating influence</th>
<th>Affect</th>
<th>Interpersonal</th>
<th>Management</th>
<th>Group assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>3.19 (0.61)</td>
<td>.75**</td>
<td>.76**</td>
<td>.68**</td>
<td>.60**</td>
<td>.56**</td>
<td>.48**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3.40 (0.52)</td>
<td>.46</td>
<td>.68**</td>
<td>.57**</td>
<td>.82**</td>
<td>.80**</td>
<td>.66**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group efficacy</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>2.68 (0.41)</td>
<td>.40*</td>
<td>.45*</td>
<td>.48**</td>
<td>.19</td>
<td>.29</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3.32 (0.36)**</td>
<td>.20</td>
<td>.64*</td>
<td>.33</td>
<td>.60*</td>
<td>.71**</td>
<td>.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group cohesion</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>2.90 (0.52)</td>
<td>.55**</td>
<td>.63**</td>
<td>.60**</td>
<td>.60**</td>
<td>.67**</td>
<td>.59**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>3.25 (0.51)*</td>
<td>.42</td>
<td>.83**</td>
<td>.64*</td>
<td>.83**</td>
<td>.89**</td>
<td>.55*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001.
Small groups in Business class: N = 29; Small groups in Science class: N = 14.
SAGA-Contextualised appraisals were generally similar across classes, with a few differences. The most striking class differences emerged for Cognitive Benefits (especially the Role of the Group) and Affect (especially Group Efficacy). As shown in Table 2, Business students’ ratings of the Role of the Group was highly correlated with their appraisals of the Cognitive Benefits of the group assignment \( r(S) = .75, p < .001 \), while no relationship was found for the Science students \( r(B) = .46, \text{ns} \). The difference between correlation coefficients were tested and found to be nonsignificant (two-tailed). The same pattern, though not as striking, emerged for Group Cohesion and Cognitive Benefits. These findings suggest that although Science and Business students had similar high level appraisals of the Cognitive Benefits of their group assignment, Business students’ Cognitive Benefits’ ratings varied with their judgments of the quality of the group processes, especially the Role of the Group, whereas the quality of group processes made no difference in Science students’ rating of the Cognitive Benefits. Business students’ ratings of Group Efficacy were also significantly related to their perception of Affect with no relationship found for their Science counterparts.

3.1.3. General view of group work at the end of the group assignment

A repeated measures ANOVA revealed a significant interaction effect of Class by Time, \( F(1, 41) = 6.12, p < .05 \), partial \( \eta^2 = .13 \), and a main effect of Time, \( F(1, 41) = 21.53, p < .001 \), partial \( \eta^2 = .34 \), for students’ General View of Group Work. The interaction effect was due to Science students’ significant change in General View from before \((M_{S2} = 2.48, SD = 0.28)\) to after their group assignment \((M_{S1} = 3.02, SD = 0.42)\), \( t(13) = -4.46, p < .001 \), Cohen’s \( d = 1.51 \), whereas no change emerged within Business \((M_{B1} = 2.63, SD = 0.38; \text{after} : M_{B2} = 2.79, SD = 0.50, \text{ns})\).

3.2. Small groups (group types) as embedded context within class

The second research question addressed how students’ multi-dimensional appraisals of a group assignment develop over time within small diverse or non-diverse groups (group type) embedded within class context. The analyses presented in this section are based on the full research design of this study, that is, Group Type by Class with Time as a repeated measure.

The profile of small groups within class prior to commencing the group assignment, the development of appraisals of the group assignment by group type within class, the retrospective and reflective measures at the end of the assignment by group type within class, and the development of General Views of Group Work and Cultural Mix appraisals by group type within class are examined in turn. A brief descriptive analysis of selected findings related to class by group type is presented at the end.

3.2.1. Profile of small groups within class prior to commencing the group assignment

As expected given the cohort characteristic of the Science class, the Mann–Whitney test revealed no significant differences by group type2 within this class on the measure of Knowing Each Other \((M_{dg} = 3.22, SD = 0.58; M_{ng} = 3.41, SD = 0.59)\), \( U(6, 8) = 20.50, \text{ns} \). Consistent with our prior research on students’ attitudes towards culturally mixed group work (Summers & Volet, 2008) students who self-selected into diverse groups had significantly more positive attitudes \((M_{dg} = 1.19, SD = 0.99)\) than those who self-selected into non-diverse groups on the measure of Cultural Mix \((M_{ng} = 0.01, SD = 0.47)\), \( U(6, 8) = 5.00, p < .05 \), Cohen’s \( d = 1.52 \). This finding can be explained in terms of the significantly more favourable attitudes of local, monolingual students who self-selected into small diverse groups \((M_{dg} = 1.08, SD = 2.20)\) compared to local students who chose to work in small non-diverse groups \((M_{ng} = -0.02, SD = 1.53)\), \( t(49) = -2.09, p < .05 \), Cohen’s \( d = 0.58 \). This suggests a self-selection bias among the local student population in the Science class. Otherwise, students’ General Views of Group Work did not differ by group type \((M_{dg} = 2.48, SD = 0.26; M_{ng} = 2.49, SD = 0.33)\), \( U(6, 8) = 23.00, \text{ns} \), and neither did any of the initial six contextualised group work appraisals.

Likewise, in the Business class, group types did not significantly differ in terms of Knowing Each Other \((M_{dg} = 1.36, SD = 0.46; M_{ng} = 1.86, SD = 0.95)\), \( U(14, 15) = 69.50, \text{ns} \). Similar to the Science class, students in self-selected diverse groups displayed more positive attitudes \((M_{dg} = 1.51, SD = 1.22)\) towards mixing international and local students for group assignments than students who self-selected into non-diverse groups \((M_{ng} = 0.04, SD = 0.95)\), \( U(14, 15) = 36.50, p = .001 \), Cohen’s \( d = 1.34 \). Within the Business class, however, this finding was due to the positive attitude of students with international experience within the diverse groups, since local, monolingual students within diverse and non-diverse groups did not significantly differ on Cultural Mix. Otherwise, as within the Science class, General Views of Group Work did not differ by group type \((M_{dg} = 2.67, SD = 0.33; M_{ng} = 2.58, SD = 0.42)\), \( U(14, 15) = 90.00, \text{ns} \), neither did students’ initial appraisals of group work.

Overall, and as would be expected before students started the assignment within their group, group type had no impact on students’ initial appraisals of the forthcoming group assignment in either Business or Science class.

3.2.2. Development of appraisals of the group assignment by group type within class

3.2.2.1. Overall analyses. Repeated measures MANOVAs (Group Type by Class by Time) were carried out for the six

---

2 The statistic values for diverse groups are shown with subscript (dg) and for non-diverse groups with (ng).
SAGA-Contextualised subscales as dependent variables. Results indicated no significant multivariate effect of Class by Time and no main effect of Class. Two-way interaction effects were found for Group Type by Time for Interpersonal, Pillai’s trace = .12, F(1, 39) = 5.36, p < .05, partial η² = .12, and Assessment, Pillai’s trace = .11, F(1, 39) = 4.92, p < .05, partial η² = .11.

3.2.2.2. Within class analyses. Follow-up analyses were conducted separately within Business and Science class using repeated measures MANOVAs (Group Type by Time) for the six SAGA-Contextualised subscales as dependent variables.

Within Business class, multivariate test results revealed no significant interaction effect of Group Type by Time overall, but a main effect of Time overall, Pillai’s trace = .76, F(6, 22) = 11.53, p < .001, partial η² = .76. Univariate test results revealed significant interaction effects for Group Type by Time for three of the six SAGA-Contextualised subscales: Interpersonal, F(1, 27) = 9.73, p < .01, partial η² = .27; Management, F(1, 27) = 8.42, p < .01, partial η² = .24; and Assessment, F(1, 27) = 5.31, p < .05, partial η² = .16. Also, a main effect for Time for five out of the six SAGA-Contextualised subscales was found: Cognitive Benefits, F(1, 27) = 22.06, p < .001, partial η² = .45; Motivating Influence, F(1, 27) = 6.88, p < .05, partial η² = .20; Interpersonal, F(1, 27) = 9.31, p < .01, partial η² = .26; Affect, F(1, 27) = 8.13, p < .01, partial η² = .23; and Assessment, F(1, 27) = 4.54, p < .05, partial η² = .14. As shown in Table 3 change in appraisals was in the same direction across appraisals, that is, more negative at the end, with the exception of Interpersonal appraisals of the group assignment. Test of between-subject effects revealed one significant main effect for Group Type for Cognitive Benefits, F(1, 27) = 6.72, p < .05, partial η² = .20.

Wilcoxon’s signed rank tests were conducted to explore the emergence of multi-dimensional group work appraisals over time separately for non-diverse and diverse groups. There was a mainly negative development for non-diverse groups, while students’ appraisals in diverse groups largely stayed stable. The decrease over time within non-diverse groups was significant for Cognitive Benefits, z = −2.92, p < .01, Cohen’s d = 0.99; Motivating Influence, z = −2.10, p < .05, Cohen’s d = 0.77; Affect, z = −2.35, p < .05, Cohen’s d = 0.62; Management, z = −2.27, p < .05, Cohen’s d = 0.78; and Assessment, z = −2.61, p < .01, Cohen’s d = 0.64. Alternatively, diverse groups displayed significantly more positive appraisals for the Interpersonal, z = −3.29, p = .001, Cohen’s d = 1.29, and less positive attitudes towards the Cognitive aspects, z = −2.35, p < .05, Cohen’s d = 0.70, at the end of the group assignment. In terms of the remaining SAGA-Contextualised subscales diverse groups in the Business class remained moderately positive. No change in Task Interest was found within either group type.

In sum, diverse groups in the Business class were significantly more positive towards Cognitive Benefits, U(14, 15) = 56.00, p < .05, Cohen’s d = 0.93, Interpersonal, U(14, 15) = 60.50, p < .05, Cohen’s d = 0.79, and Management, U(14, 15) = 50.00 p < .05, Cohen’s d = 0.98, dimensions of the group assignment than non-diverse groups after task completion.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>Group assessment</th>
<th>Cognitive benefits</th>
<th>Motivating influence</th>
<th>Affect</th>
<th>Interpersonal</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Pre-task) M (SD)</td>
<td>Post-task M (SD)</td>
<td>(Pre-task) M (SD)</td>
<td>Post-task M (SD)</td>
<td>(Pre-task) M (SD)</td>
<td>Post-task M (SD)</td>
</tr>
<tr>
<td>Business class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1.69 (1.00)</td>
<td>1.72 (1.15)</td>
<td>2.00 (0.78)</td>
<td>2.17 (0.61)</td>
<td>1.11 (0.78)</td>
<td>1.23 (1.21)</td>
</tr>
<tr>
<td>Non-diverse</td>
<td>1.86 (1.07)</td>
<td>1.10 (1.30)</td>
<td>2.24 (0.91)</td>
<td>2.10 (1.17)</td>
<td>1.23 (0.88)</td>
<td>1.64 (1.66)</td>
</tr>
<tr>
<td>Science class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1.69 (1.00)</td>
<td>1.72 (1.15)</td>
<td>2.00 (0.78)</td>
<td>2.17 (0.61)</td>
<td>1.11 (0.78)</td>
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<tr>
<td>Non-diverse</td>
<td>1.86 (1.07)</td>
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<td>2.10 (1.17)</td>
<td>1.23 (0.88)</td>
<td>1.64 (1.66)</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01; ***p < .001.

Business class: diverse group N = 15, Non-diverse groups N = 14.

Science class: diverse groups N = 8, Non-diverse groups N = 6.

The arrows indicate the direction of appraisal change over time (↑ positive; ↓ negative).

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Repeated measures MANOVAs (Group Type by Time) within the Science class revealed no significant interaction effects of Group Type by Time, or any main effect of group type. Univariate test results showed only one significant effect of Time overall for Assessment, F(1, 12) = 5.40, p < .05, partial \( \eta^2 = .31 \). Following up on group types within the Science class, non-diverse groups’ appraisals stayed stable over time, while diverse groups changed significantly in terms of two SAGA-Contextualised subscales. Wilcoxon’s signed rank tests revealed that diverse groups were more positive towards the Affect, \( z = -2.38, p < .05 \), Cohen’s \( d = 0.63 \), and Assessment, \( z = -1.96, p = .05 \), Cohen’s \( d = 1.01 \), dimensions of the group assignment at the end. No significant differences were found for small groups in the Science class at the end of the assignment.

As for group types in the Business context, Interest in the Task did not change over time for either group type.

### 3.2.3. Retrospective and reflective measures at the end of the assignment by group type within class

Retrospective measures of meta(cognitions) on group processes for group type within class are displayed in Table 4.

A 2 (group type) by 2 (class) MANOVA for the five end measures revealed a significant main effect only for Class, as already reported in subchapter 3.1.2.2. The tests of between-subjects effects revealed one significant interaction effect of Class by Group Type for Role of Group, Pillai’s trace = .10, F(1, 39) = 4.27, p < .05, partial \( \eta^2 = .10 \). Box’s test of equality of covariance matrices was not significant, and neither was Levene’s test of equality of error variances for any of the five dependent variables. The interaction effect for Role of Group showed that within Science class, both group types appeared highly positive towards the Role of the Group, which indicates that the quality of group processes was unrelated to whether the group was diverse or non-diverse. In contrast, within Business, students in diverse groups perceived the Role of their Group as more positive than their peers in non-diverse groups. Hence, despite the fact that they were interacting with peers from the same cultural experiential background, Business students in non-diverse groups experienced their group processes as less positive than their counterparts in diverse groups did.

### 3.2.4. Development of general views of group work and cultural mix appraisals by group type within class

Class by Group Type ANOVAs were carried out separately for General Views of Group Work and Cultural Mix. For General Views of Group Work, Group Type did not appear to play a role. Only the interaction effect of Class by Time and the main effect of Time, as already reported in subchapter 3.1.3, were significant.

For Cultural Mix, a highly significant main effect for Group Type emerged, F(1, 39) = 19.33, p < .001, partial \( \eta^2 = .33 \), showing that students in diverse groups had more positive attitudes towards mixing with peers from different cultural backgrounds in comparison to their peers in non-diverse groups. This main effect was not only due to the subgroup of students with international experience, since the two subgroups of local, monolingual students differed significantly on that measure for both group types at the end of the assignment for the Business class (\( M = 1.08, \) SD = 1.70 and \( M = -0.48, \) SD = 2.14 for the locals in diverse groups and non-diverse groups, respectively), \( t(55) = -2.50, p < .05 \), Cohen’s \( d = 0.31 \); for the Science class (\( M = 0.76, \) SD = 2.10 and \( M = -0.38, \) SD = 1.58, for the locals in diverse groups and non-diverse groups, respectively), \( t(49) = -2.19, p < .05 \), Cohen’s \( d = 0.61 \).

Finally, non-diverse groups’ Cultural Mix appraisals declined significantly over time within both classes: for the Business class (\( M_{(B1)} = 0.04, \) SD = 0.95 and \( M_{(B2)} = -0.49, \) SD = 1.24), \( z = -1.98, p < .05 \), Cohen’s \( d = 0.47 \); for the Science class (\( M_{(S1)} = 0.01, \) SD = 0.47 and \( M_{(S2)} = -0.36, \) SD = 0.42) \( z = -2.20, p < .05 \), Cohen’s \( d = 0.83 \).

### 3.3. Descriptive analysis of selected findings related to the analyses of class by group type

One major aim of the present study was to determine the conceptual usefulness of identifying two levels of context, namely class and small group embedded within class, to better understand students’ (meta) cognitions about group work. The findings reported in Sections 3.1 and 3.2 revealed significant main effects for each level of context, which suggests that both class and group type are conceptually useful to understand students’ (meta)cognitions. However, no significant interaction effects of class by group type were found, leading us to conclude that the hypothesis of possible interaction effect of the two layers of context was not supported.

Yet, a descriptive analysis of the findings reveals systematic patterns of interactions across appraisals, patterns that are meaningfully related to the research questions but cannot be supported by inferential analyses. It could be argued that the identification of statistically significant patterns of results was constrained due to the limited number of small groups generated by the natural setting of the study, and by the use of group analyses and non-parametric techniques. For this reason, it was decided to present two patterns of interactions for Class by Group Type, namely for Cognitive Benefits and Group Assessment appraisals (Fig. 1 and 2), since these were statistically significant using individual level analyses but not using group level analyses. For Cognitive Benefits the most positive appraisals are displayed by Business students in small groups, while an opposite trend is shown for Group Assessment.

Although the use of group mean scores is obviously appropriate to acknowledge the issue of interdependency within groups, it also means that a substantial amount of variability is masked in these analyses. This descriptive analysis, therefore, is presented with a view to encourage future research with larger samples to investigate if the patterns observed in this study can be replicated.
4. Discussion

The research design with two layers of context provides the organising structure for explaining the diverging change over time in students’ multi-dimensional (meta)cognitions related to their group assignment. The usefulness of a multi-dimensional and contextual approach for understanding group work (meta)cognitions at university is discussed.

4.1. Class as context

The first research question aimed to establish how class as context could explain the development of students’ (meta)cognitions related to a group assignment. The negative overall trend within Business and contrasting positive trend within Science reflected the distinct class-level affordances and constraints for students’ multi-dimensional experiences. These can be interpreted in terms of the combination of interdependent task characteristics, compulsory meetings with teachers to monitor the groups’ progress and cohort effect, within the Science class, and largely non-interdependent task features, lack of structured teacher support and students not knowing each other, within the Business class. These diverging trends in students’ (meta)cognitions across classes were meaningful and support Hypothesis 1.

These findings, however, also suggest that group size did not play a critical role in this study, stressing instead the importance of interdependence and teacher support. While groups in Science were comparably larger than Business groups, students nevertheless established a beneficial and positive group climate, a finding that is inconsistent with prior research on group work (Gillies, 2003; Lou et al., 1996). Previous research (van den Bossche et al., 2006; Wageman, 1995) has found that interdependence in both task process and task outcome increased group communication and collaboration. Since the Science task could be classified as high and the Business task as moderate to low on both interdependence aspects, this may explain class differences in appraisals and reflections. The notion of interdependence may also contribute to explaining the “out of pattern” positive development in Business students’ appraisals of the interpersonal aspects of their group work. If Business students could complete their group assignment with minimal face-to-face interaction, this may have meant few opportunities for interpersonal conflict and thus the possibility of positive interpersonal appraisals at the end, alongside a general decline in other appraisals.

Table 4

(Meta)cognitions on group processes by group type within class.

<table>
<thead>
<tr>
<th></th>
<th>Business class</th>
<th>Science class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diverse M (SD)</td>
<td>Non-diverse M (SD)</td>
</tr>
<tr>
<td>Task interest</td>
<td>2.48 (0.38)</td>
<td>2.41 (0.51)</td>
</tr>
<tr>
<td>Task difficulty</td>
<td>3.30 (0.47)</td>
<td>3.23 (0.58)</td>
</tr>
<tr>
<td>Role of group</td>
<td>3.44 (0.45)</td>
<td>2.92 (0.65)</td>
</tr>
<tr>
<td>Group efficacy</td>
<td>2.76 (0.41)</td>
<td>2.59 (0.41)</td>
</tr>
<tr>
<td>Group cohesion</td>
<td>3.10 (0.46)</td>
<td>2.69 (0.51)</td>
</tr>
</tbody>
</table>

*p < .05.

Business class: diverse group N = 15, non-diverse groups N = 14.
Science class: diverse groups N = 8, non-diverse groups N = 6.

Fig. 1. Overall Cognitive Benefits by group type within class.

Fig. 2. Overall Group Assessment by group type within class.

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finding highlights the criticality of conceptualising group work as a multi-dimensional work.

Teacher support may have contributed to the striking class differences in students’ (meta)cognitions. The finding that Business students found their task more difficult than their Science counterparts, even though it was conceptually less complex than the Science task, seems to support this possibility, which is consistent with Business students finding their task less interesting. In contrast, Science students valued the authenticity of their complex clinical case, and in combination with substantial teacher support for the group exercise this may have led to perceptions that the task was not too difficult.

One unexpected finding related to class as context was the lack of relationship between the extent to which group members knew each other prior to commencing the task and their pre-task appraisals of the most people-oriented aspects of the group activity, more specifically, its motivating, affective, interpersonal, and management aspects. This finding seems inconsistent with widespread anecdotal evidence of students’ preference for self-selecting into groups of friends when given the choice, as well as other research findings that students are more enthusiastic about a group task (Chapman et al., 2006) and report higher satisfaction levels (Mahenthiran & Rouse, 2000) if they work with friends. This finding is, however, consistent with a recent study by Lizzio and Wilson (2006) showing that prior acquaintance of group members was unrelated to group processes and outcome variables.

Other findings, which could be interpreted in terms of students’ familiarity with each other, are the class differences in group efficacy and cohesion. Previous research (Campion et al., 1996) revealed that acquaintanceship prior to task commencement provides an early baseline of relationship cohesion. Hence, the cohort characteristics of the Science class, in combination with interdependent task features and structured teacher support, would have co-contributed to the emergence of positive small group climates. In contrast, Business students had to establish relationships first, possibly at the cost of effective task-related activities. The combination of not knowing each other well and having to work on a task with marginally interdependent features may have created a less conducive environment for collaborative effort, especially if students thought that they may not work with these peers again. Overall, this suggests that relational and collaborative dynamics may play out differently depending on a combination or interaction of individuals’ attitudes to the peer group (Broome & Fulbright, 1995), task characteristics and teacher support. The significance of perceived and observed role of peer familiarity in group work needs research attention. According to Lizzio and Wilson (2005), intra-group characteristics, the second layer of context examined in this study, may play an even more significant role for task and socio-emotional processes than teacher support.

4.2. Diverse and non-diverse groups as embedded context within class

The second research question aimed at determining how developing (meta)cognitions related to a group assignment vary, depending on whether it was completed in a diverse or non-diverse small group within a particular class context. The number of diverging trends that emerged for different dimensions in regard to group type within classes further highlights the need to treat group work as multi-dimensional, but also as sensitive to the interacting characteristics of different layers of context.

In terms of small groups in the Science context no significant differences were found after task completion. These findings provide support for Hypothesis 2 and the argument that the accumulation of enabling contextual elements creates an ideal environment for productive collaborative processes to emerge and be sustained over the duration of the task, regardless of small group configuration. In the Science class, this was the case despite the relatively large group sizes.

Notable were the findings for diverse and non-diverse groups in the Business class, which did not support Hypothesis 3, and the expectation that diverse groups would experience the group assignment as more challenging than non-diverse groups when the overall instructional environment provides less enabling contextual conditions for collaborative learning. While no significant differences were found prior to task commencement, diverse groups had more positive appraisals of the cognitive, interpersonal and management aspects of the group assignment than non-diverse groups at the end of the activity. It appears that diverse groups managed to successfully create a small group climate conducive for productive engagement and management. Overall, it could be speculated that within diverse groups positive group dynamics emerged because the richness of members’ diverse experience made the activity more stimulating, productive and enjoyable (Michaelson & Watson, 1987; Watson et al., 2002). Yet, this positive outcome was achieved without the benefits of interdependent task characteristics and availability of adequate teacher support, which have been reported as critical for positive multicultural group experiences in prior research (Li & Campbell, 2008; Sweeney et al., 2008). Nevertheless, the findings of the present study highlight the potential benefits of cultural diversity for small group learning. Why non-diverse groups may fail to establish a positive small group climate in a learning activity, while their diverse counterparts are able to, remains open for future research. These results contradict previous findings that homogeneous groups tend to be happier, experience less conflict (Ledwith et al., 1998; Schullery & Schullery, 2006) and report higher levels of motivation and success (Robbins & Fredendall, 2001), but they are consistent with other research highlighting the benefits of diverse learning groups (Schullery & Schullery, 2006; Watson et al., 1998).

Finally, the finding that diverse groups were systematically more favourable than non-diverse groups towards mixing students from diverse backgrounds for group assignments is consistent with our prior research (Summers & Volet, 2008; Volet, 2001a). Evidence of further decline over the duration of a group assignment within the non-diverse groups is however troubling, given these students were not interacting with peers from diverse backgrounds. The decline within Science class is
especially puzzling, as one could have speculated that belonging to a cohort may soften this phenomenon. Whether such patterns may be explained in terms of Wright, Aron, McLaughlin-Volpe, and Ropp’s (1997) extended contact effect, that is, through friend’s accounts of challenging experiences in diverse groups is open for future research.

4.3. Conclusion

Before addressing future research directions and methodological implications, it is important to point to some limitations of this study. The findings were specific to two study programmes embedded in the same university context and therefore may not generalise to other courses and institutions. Moreover, although we were able to detect distinct patterns in students’ multi-dimensional appraisals over time within group types and classes, the socio-cultural and socio-emotional dynamics underlying these patterns remain unclear, necessitating qualitative insights into students’ contextualised group work experiences. Furthermore, future research should focus on process data to investigate the multitude of factors that may impact on the emergence of students’ group work appraisals that were beyond the scope of study.

The richness of the two-layered learning contexts and small longitudinal design in this study was critical to reveal the context-sensitive and developing nature of individuals’ experience of group work. Longitudinal designs combined with multi-layered models (Gurtner, Monnard, & Genoud, 2001) and multi-level perspectives (Strijbos & Fischer, 2007; Volet, 2001b) are necessary to understand the reciprocal interplay of cognitive, relational and emotional aspects at multiple levels of naturally emerging collaborative activities. We also argue that it is of the utmost importance to determine how these mechanisms play out across multiple learning contexts, in order to reach a fuller understanding of these phenomena. Mixed methods approaches (Johnson & Onwuegbuzie, 2004) would also be ideal to shed light on how academic, relational and emotional processes in social learning activities might be interrelated. The multilevel and situational challenges (Strijbos & Fischer, 2007) emerging in research involving nested contexts designs can be addressed by multi-level analysis (de Wever, Van Keer, Schellens, & Valcke, 2007) or by triangulation of separately analysed individual and group level perspectives (Arvaja, Salovaara, Häkinnen, & Järvelä, 2007).

In that regard, this study highlighted the particular methodological challenges related to research conducted in natural settings with limited numbers of small groups, hiding the presence of meaningful appraisal patterns. Thus, we strongly encourage future research with larger sample sizes to examine whether these patterns can be replicated.

Finally, in light of socially and culturally diverse university student bodies, incorporating a cultural angle within research designs appears essential for capturing how the interplay of cultural and interpersonal dimensions contributes to students’ group work experiences. These mechanisms are particularly important when learning depends on inter-subjective meaning making, such as group learning activities.

Acknowledgement

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University students’ perceptions of and attitudes towards culturally diverse group work: Does context matter?

STUDY 2
University Students’ Perceptions of and Attitudes Towards Culturally Diverse Group Work: Does Context Matter?

Karen Kimmel1 and Simone Volet2

Abstract
This article presents two consecutive studies aimed at disentangling the significance of study contexts on students’ attitudes towards learning and interacting in culturally diverse groups. Context was operationalised as two distinct study programmes with contrasting organisational and instructional characteristics and diverse/nondiverse groups embedded within each. The combination of a small longitudinal questionnaire study (Study 1) and follow-up in-depth interviews (Study 2) provided valuable insight into the significance of contextual aspects of the learning environment for students’ intercultural experiences and attitudes. The findings revealed that language proficiency, academic competencies, and cohort characteristics play an important role for students’ intercultural encounters. The results also suggest that students’ own attitudes towards intercultural interactions may be affected by the quality of close peers’ experiences in culturally diverse groups (extended contact effect).

Keywords
study context, collaborative learning, intercultural interactions, group work, cultural diversity

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Introduction

Internationalisation of higher education aims at developing skills, knowledge, attitudes, and values of faculty, staff, and students, so that they can become interculturally competent to efficiently live and work in an international context (de Wit, 1995). Further aims are to enhance all students’ understanding of equality (De Vita, 2000) and appreciation of other cultures (Volet & Ang, 1998). However, studies conducted across English speaking countries (Halualani, Chitgopekar, Morrison, & Dodge, 2004; Quintrell & Westwood, 1994; Trice, 2004) have revealed that despite growing numbers of international students and increasingly diverse domestic student bodies, there is strong evidence of minimal interactions between culturally diverse students. It appears that provision of opportunities for intercultural contact on campuses does not automatically lead to an increase in intergroup contact (Pettigrew, 1998), which clearly conflicts with the aims of internationalisation.

The importance of promoting positive interactions and productive intercultural learning on international campuses is on the agenda of all universities hosting large numbers of international students. Yet the implementation of effective strategies to achieve this aim has proved challenging (e.g., Deakins, 2009; Nesdale & Todd, 2000; Pritchard & Skinner, 2002; Quintrell & Westwood, 1994). Theoretically, group learning activities conducted in culturally mixed groups can potentially enhance the quality of student learning outcomes as well as create opportunities for positive intercultural learning (De Vita, 2001). Empirical research examining the educational merit of culturally diverse versus nondiverse group work is growing (e.g., De Vita, 2002; Watson, Johnson, & Zgourides, 2002), but findings remain inconclusive. While Wright and Lander (2003) found concerning deficits in culturally diverse groups’ mutual interactions and communication patterns, De Vita’s (2002) and Watson et al.’s (2002) research provided empirical support for the benefits of participation in diverse groups.

Clearly, student-led group activities conducted with peers from culturally diverse backgrounds appear challenging. This is not surprising because such activities require a sophisticated set of skills to successfully manage multiple relationships, navigate unfamiliar communication styles, and coordinate different expectations and work habits. Consequently, in countries with socially and culturally diverse student populations, students are often reluctant to join culturally diverse groups for assignments (Ledwith, Lee, Manfredi, & Wildish, 1998; Montgomery, 2009; Trice, 2004; Volet & Ang, 1998). This research has revealed students are naturally inclined to seek social contacts entailing a low risk of negative or awkward experiences (Nesdale & Todd, 2000; Slavin, 1990), which is more likely with peers sharing similar values, beliefs, and attitudes. Other identified obstacles preventing intercultural interactions in academic settings include language barriers, common stereotypes, poor intercultural relational skills, and fear of diminished grades (De Vita, 2002; Ledwith et al., 1998).

Despite this prior research, it remains unclear why some diverse groups are able to capitalise productively on emerging learning opportunities, whereas others apparently feel overwhelmed by sociocultural and socioemotional challenges. The literature on
cooperative learning widely acknowledges that cognitive, motivational, and affective benefits of group learning activities are more likely to be achieved under specific contextual circumstances. Critical elements to promote successful collaborative learning are, for example, task interdependence, teacher support, task instructions, and small group characteristics (Cohen, 1994; Johnson & Johnson, 1999). Learning environments displaying these key elements are expected to induce active involvement of all students in the learning process and in turn lead to higher cognitive gains, motivational levels, and student satisfaction. With regard to collaborative activities conducted in culturally diverse groups, there is emerging evidence (e.g., Sweeney, Weaven, & Herrington, 2008) that interdependent task features and availability of adequate teacher support represent critical factors for positive and rewarding group experiences.

In sum, there is converging evidence that completion of collaborative learning activities in culturally diverse small groups is a highly complex, socially and emotionally demanding experience. The degree of success can therefore be sensitive to the contextual conditions in which the actual encounter occurs. In that regard, the paucity of empirical work on the impact of learning contexts on students’ culturally diverse group work experiences and subsequent attitudes towards intercultural interactions is rather surprising. Moreover, a major limitation of prior research is that study context is never unpacked, with researchers locating their work in either the overall university setting or within a single study programme (overwhelmingly business). Furthermore, previous research is typically conducted with a single point of data collection or single set of interviews or questionnaires—with some exceptions (e.g., Summers & Volet, 2008; Watson et al., 2002). To our knowledge, few studies have undertaken systematic examinations of (a) how students’ experiences in culturally diverse and nondiverse groups develop in the same educational setting over a period of time and (b) how students’ group work experiences compare across learning contexts, taking into consideration distinct organisational structures and specific instructional characteristics of the learning environment.

Assuming that individuals and social contexts coshape and coconstruct the nature of engagement in interpersonal interactions and group learning activities, it is argued that the context-sensitive and changing nature of students’ intercultural experiences would best be captured by examining this phenomenon over a period of time and within learning contexts that differ on characteristics identified as significant in the literature on group work. In addition, it is expected that including both questionnaire data (to identify patterns within contexts and over time) and interview data (to unveil students’ own interpretations of the detected patterns) will provide deeper and fine-grained insights.

The two consecutive studies reported in this article, therefore, were designed to examine how students’ attitudes towards culturally mixed groups developed within distinct study contexts at two levels of specificity (i.e., broad context as study programme; and proximal context as diverse or nondiverse small group within each), using a multi-method approach. Addressing the issue of attitude towards culturally mixed groups across contexts, and illuminating the quantitatively detected patterns with anecdotal,
subjective insights was expected to stretch understandings of the complex, multifaceted and context-sensitive nature of students’ intercultural interactions. Including two study contexts with contrasting organisational structures and instructional characteristics was intended to reveal the impact of contextual affordances and constraints on experiences of, and attitudes towards, culturally mixed groups. Finally, to reflect the combination of individual and contextual cultural characteristics, cultural mix was operationalised as students’ experiences in culturally diverse/nondiverse groups over the duration of a group assignment as well as students’ attitudes towards interacting with peers from different cultural backgrounds during their study at university in general.

Specifically, Study 1 aimed to determine how students’ attitudes towards cultural mix develop over the duration of a group assignment completed in a culturally diverse or nondiverse group embedded within a particular instructional environment. Study 1 also aimed to examine the extent to which the development of students’ appraisals of multiple aspects of their group experience varied between group types. Study 2 aimed to gain insight into students’ subjective experience of mixing with peers from different cultural backgrounds during their academic study beyond the scope of a single group assignment, with a view to better understand and explain the patterns of results emerging from Study 1.

Study 1

Research Questions

Two research questions were generated for this study.

Research Question 1: How do students’ attitudes towards mixing with peers from different cultural backgrounds develop over the duration of an actual group project completed in a culturally diverse or nondiverse group of peers, and to what extent does the broader instructional environment affect students’ group work experiences?

Research Question 2: How do students’ appraisals of multiple aspects of an actual group project experience develop in culturally diverse and nondiverse groups, and how does that experience relate to the broader instructional environment?

Method

Participants and Procedure

Two classes of 2nd-year university students, science ($N = 81$) and business ($N = 88$), participated in this study. The two classes were chosen as their respective instructional environments displayed the characteristics of more (science) and less (business) enabling collaborative contextual conditions. While in both classes students had to complete a mandatory, self-managed group assignment, which attracted a group mark,
there were also considerable differences across study contexts. Within science group sizes varied between 5 to 6 members and teacher support was structured including compulsory meetings to monitor group processes. Furthermore, progress and task features were interdependent requiring considerable collaboration and interactions among students for successful completion.

By comparison within business, groups sizes varied between 3 and 4 members, the opportunities for teacher support were strictly by appointments during weekly consultation time, and task features were noninterdependent, which allowed division of labour and completion of individual work in isolation from the group. At the broader level, the two study contexts also differed in structure: while science students formed a cohort studying exactly the same units and thus were relatively familiar with each other, business students came from a larger student population studying core and elective units, and thus were relatively unfamiliar with each other. (Students’ reports on peer familiarity revealed significant class differences \( p < .001 \) with science students more familiar with peers than business students.) Overall, these commonalities and differences of both classes allowed for the interpretation of findings in light of the combined effect of specific contextual affordances and constraints present in each study context.

In each course, groups worked together for a period of approximately 7 to 8 weeks. Group membership was self-selected. Nondiverse groups (science \( N = 6 \), business \( N = 14 \)) were composed of peers who had completed their entire schooling in Australia, were permanent residents and predominantly monolingual. Diverse groups (science \( N = 8 \), business \( N = 15 \)) were comprised of some peers with these characteristics, but at least 50% of group members had extensive international experience. The latter completed the majority of their schooling in another country, were typically permanent residents of other countries and predominantly multilingual.

All students completed matched questionnaires at the beginning and end of the group assignment, which allowed for examination of stability and change in students’ group work appraisals. The main instrument was the Students’ Appraisals of Group Assignments (SAGA) Questionnaire, which contains six contextualised scales (5 items each) measuring students’ appraisals of the cognitive benefits, motivating influence, affect, management, group assessment, and interpersonal dimensions of their current assignment (thus contextualised to that task). One measure from the SAGA-General version (decontextualised) was also used in this study. The cultural mix scale (5 items) measures students’ general attitude towards assignments completed in groups comprised of both international and local students. The limited number of small groups required nonparametric tests for data analysis. Hence Mann-Whitney and Wilcoxon’s signed rank tests were conducted. Finally, to account for the interdependence between peers in groups, all analyses were conducted using group mean scores.

**Findings**

Research Question 1 addressed the issue of how students’ attitudes towards mixing with peers from different cultural backgrounds develop over the duration of an actual group project in culturally diverse and nondiverse groups of peers and the extent to
which the broader instructional environment may affect students’ group work experiences. A Mann-Whitney test on students’ cultural mix appraisals revealed that prior to task commencement culturally diverse groups were systematically more favourable than nondiverse groups towards mixing with students from different cultural backgrounds for group assignments. This overall pattern was consistent across study contexts as shown in Table 1 and illustrated in Figure 1.

While the pretask pattern for cultural mix was the same for both classes, possible explanations for this pattern seemed to vary between classes. Independent t tests revealed that in the science context this finding could be explained in terms of significantly more favourable attitudes of local, monolingual students who self-selected into diverse small groups (M = 1.08, SD = 2.20) compared to local students who chose to work in nondiverse groups (M = 0.01, SD = 0.47), t(49) = -2.09, p < .05. This suggests a self-selection bias among the local student population in the science class. In contrast, within business this finding could be linked to the positive attitude of students with international experience within the diverse groups, because the subgroup of local, monolingual students within diverse and nondiverse groups did not significantly differ on this measure.

Wilcoxon’s signed rank tests were conducted for group type (culturally diverse, nondiverse) within class (business, science) for cultural mix. These tests showed similar changes over time for each group type in both study contexts. While diverse groups did not significantly change on that measure, nondiverse groups were significantly less positive towards mixing at the end of the particular group assignment. This latter finding seemed particularly troubling given that these students had been interacting in nondiverse groups during the group activity.

These patterns raise the question of whether students in culturally diverse and nondiverse groups experience their respective group learning activity differently. This was the focus of the second research question.

Research Question 2 raised the issue of how students’ appraisals of multiple aspects of an actual group project experience develop in culturally diverse and nondiverse contexts. The results for these appraisals are shown in Table 1.

### Table 1. Pre- and Posttask Cultural Mix Appraisal by Group Type Within Class

<table>
<thead>
<tr>
<th></th>
<th>Pretask</th>
<th>Posttask</th>
<th>p</th>
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<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1.51 (1.22)</td>
<td>1.68 (1.55)</td>
<td>ns</td>
</tr>
<tr>
<td>Nondiverse</td>
<td>0.04 (0.95)**</td>
<td>-0.49 (1.24)**</td>
<td>↑↓</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse</td>
<td>1.19 (0.99)</td>
<td>1.12 (1.25)</td>
<td>ns</td>
</tr>
<tr>
<td>Nondiverse</td>
<td>0.01 (0.47)*</td>
<td>-0.36 (0.42)*</td>
<td>↑↓</td>
</tr>
</tbody>
</table>

Note: Business class: Diverse group N = 15, Nondiverse groups N = 14; Science class: Diverse groups N = 8, Nondiverse groups N = 6. The arrows indicate the direction of appraisal change over time (↑ positive; ↓ negative).

*p < .05. **p < .01. ***p < .001.
groups and how this experience may be related to aspects of the broader instructional environment. Before commencement of the group assignment, Mann-Whitney tests revealed that group type had no impact on students’ initial appraisals of the forthcoming group assignment, as evidenced by the lack of significant differences between diverse and nondiverse groups’ multiple group work appraisals. This was consistent across instructional environments. Subsequently, further analyses were carried out within business and science allowing for examination of how appraisal profiles developed over time for diverse and nondiverse small groups within each specific instructional environment.

Wilcoxon’s signed rank tests were conducted to explore change in multidimensional group work appraisals over the duration of the assignment separately for nondiverse and diverse groups within both class contexts. Within business, there was a mainly negative development for nondiverse groups, although students’ appraisals in diverse groups largely stayed stable. The decrease over time within nondiverse groups was significant for cognitive benefits ($z = -2.92, p < .01$), motivating influence, ($z = -2.10, p < .05$), affect ($z = -2.35, p < .05$), management ($z = -2.27, p < .05$), and assessment.
(z = -2.61, p < .01). Alternatively, diverse groups displayed significantly more positive appraisals for the interpersonal (z = -3.29, p = .001), and less positive attitudes towards the cognitive (z = -2.35, p < .05) aspects at the end of the group assignment. Within science, Wilcoxon’s signed rank tests showed diverse groups were more positive towards the affect (z = -2.38, p < .05), and assessment (z = -1.96, p = .05) dimensions of the group assignment at the end, whereas nondiverse groups’ appraisals of the assignment did not change significantly from beginning to end.

In sum, while pretask appraisal profiles were similar for groups across study contexts, appraisals developed differently depending on whether group tasks were completed in diverse or nondiverse groups. Hence, after task completion, appraisal profiles differed between groups within business, with diverse groups displaying significantly more favourable appraisals of the cognitive benefits, interpersonal and management aspects of the group assignment than nondiverse groups. In contrast, no significant differences were found between groups in the science context at the end of the assignment.

**Discussion and Conclusion of Study 1**

With regard to the first research question, diverse groups consistently displayed more favourable attitudes towards mixing with peers from different cultural backgrounds than nondiverse groups, which is consistent with other research (e.g., Ledwith & Seymour, 2001). However, evidence of further decline over the duration of the group assignment for nondiverse groups was especially concerning given the lack of intercultural interactions during task completion. This supports Summers and Volet’s (2008) findings on the emergence of nondiverse groups’ cultural mix appraisals in 1st, 2nd and 3rd year business courses. Hence one could argue that this trend is illustrative of a business programme with noncohort characteristics. Even so, the decline within nondiverse groups in the science class is particularly puzzling as it could be speculated that belonging to a cohort may weaken this phenomenon.

Furthermore, in light of the second research question the findings for diverse and nondiverse groups within business suggest that diverse groups managed to establish a beneficial group climate for positive appraisals to emerge. This is consistent with prior research (e.g., Watson et al., 2002), but remarkable in this study, given noninterdependent task features and unstructured teacher support (e.g., Sweeney et al., 2008). In contrast, within science no significant differences between groups were found after task completion. This finding shows the combined beneficial implications of interdependent task characteristics, structured teacher support, and cohort characteristics creating an enabling environment for efficient collaborative processes to emerge regardless of group configuration.

In sum, Study 1 identified distinct patterns in the emergence and evolution of students’ attitudes towards intercultural mixing and towards group work, findings which could partly be interpreted in terms of affordances and constraints present in different
study contexts. To gain insight into the development of such patterns, a follow-up study was designed.

**Study 2**

**Aims and Research Questions**

Study 2 aimed to examine how students’ accounts and reflections on their experiences of interacting with peers from different cultural backgrounds within a particular learning context may shed some light on the patterns of results from Study 1. For that purpose, the notion of context in which intercultural interactions take place was broadened beyond a single, specific group assignment, enabling exploration of students’ accounts of and reflections on their experiences of intercultural interactions in their respective courses, namely business or science.

Two research questions, emerging from the patterns of results of Study 1, were generated for Study 2:

*Research Question 3:* How do students explain the process of self-selection into culturally diverse or nondiverse groups in their study context?

*Research Question 4:* Why do students who self-select into nondiverse groups become more negative towards working in diverse groups?

**Method**

**Participants and Procedures**

Twenty-seven students from identical study contexts to Study 1, business (N = 13) and science (N = 14; of which 10 partook in Study 1), volunteered to participate in the research. Semistructured, in-depth focus group and individual interviews were conducted to elicit students’ subjective experiences and accounts of interactions with culturally different peers. An additional three individual interviews were organised for volunteers unable to join a focus group because of time constraints. Interview questions were framed so as to invite students to freely discuss various aspects of group work and social experiences, when interacting with peers from different cultural backgrounds. The interviewer’s own cultural and linguistic background differed from all interviewees, meaning that both native and nonnative English speakers were interviewed by someone from a different background from theirs, albeit with near native English proficiency. To establish a positive and open interview climate and address the issue of positioning (Scollon & Wong-Scollon, 2001), the interviewer released some personal information about her background as an international student in Australia as well as familiarity with issues related to intercultural mixing. In contrast, when interacting with local students, the interviewer emphasised her considerable experience in
the Australian context. The issue of being thoughtful of self-disclosure is consistent with Glesne and Peshkin’s (1992) notion of “tailoring the self” (p. 83). In the present study, it was particularly important to stay neutral and accommodating for both positive and negative experiences to encourage participants to talk openly about their histories without withholding or censoring information (Fontana & Frey, 1994). Interviews were conversational and lasted between 30 to 90 min. All interviews were audio-taped on students’ consent and transcribed verbatim for analysis.

Information regarding composition of interview groups and characteristics of participants is provided in the appendix. Country of origin is included in the table to illustrate diversity of students’ backgrounds within each context and not to relate findings to particular ethnic groups.

**Interview Data Analysis**

The interview data was transcribed and coded according to the principles of qualitative content analysis (Chi, 1997; Mayring, 2000). Transcripts were analyzed using a dynamic combination of inductive and deductive techniques (Chi, 1997; Miles & Huberman, 1994): being open for emerging themes while also examining (in)consistencies with concepts derived from prior research on intercultural interactions between student groups. The analysis was dynamic as it remained open towards incorporating data- and theory-driven modifications throughout the entire coding process. All data were entered in MaxQDA software.

In the first phase, interview transcripts from science and business students were read and tagged to identify all discussions about interactions between students from same or different cultural backgrounds. Text segmentation was based on semantic features, such as topics, ideas, and argument chains (Chi, 1997). The first reading, therefore, aimed at detecting notable, significant, and recurring patterns or themes in the core interview content that best represented and structured verbal data (Mayring, 2000). The next step involved a deductive approach, where the researchers looked for frequent regularities, similarities, and consistencies with prior research. The topics were refined and relabelled accordingly at that point, taking into account prior research findings.

In the second phase, transcripts were reread several times and themes examined in light of their suitability and appropriateness for addressing the predetermined research questions and contexts. Topic revision and refinement was only marginally required in this phase. Throughout the analysis, careful consideration was given to identifying any evidence of deviant patterns and issues that did not match the dominant, recurring themes and these were allocated correspondingly (Patton, 1990).

In sum, while the dominant orientation of the analysis was bottom-up, the conceptual issues addressed in the research questions led to the generation of top-down codes (Chi, 1997). Overall, the combination of inductive and deductive approaches allowed for a systematic and holistic perspective of students’ contextualized accounts of their cultural mix experiences.
Findings

The findings are organised around the two research questions: Where applicable, converging findings across study contexts are reported first, followed by context-sensitive findings specific to the natural, instructional environment of each course.

How do Students Explain the Process of Self-Selection Into Culturally Diverse or Nondiverse Groups in Their Study Context?

Similarities in Explanations Across Study Contexts

Across study contexts, students’ accounts converged to acknowledge limited interactions between peers from different cultural backgrounds and highlighted students’ strong inclinations to work with close peers or friends from similar cultural backgrounds. These findings are consistent with numerous other studies conducted in countries hosting large numbers of international students (e.g., Trice, 2004; Volet & Ang, 1998).

Working with friends and peers from a similar background was perceived as less stressful, more relaxing, and more fun. Interestingly, both international and local students highlighted that having fun while working was an expectation mostly of Australian students and attributed its origin to cultural differences rather than social practices. Otherwise, reservations to join culturally mixed peer groups for group assessments were explained by factors other than culture, such as communication difficulties (due to language proficiency and accents), differences in working styles, and work ethics.

Also common across study contexts were international students’ appreciation of the value of academic tasks conducted in mixed groups, and in contrast local students’ scarce comments in that regard. Regardless of the country of origin, most international students wished for more time within their groups to complete projects, an issue which was raised more frequently within business than science. Some comments implied that subgroups of international business students within diverse groups tended to work closely together, which could explain Study 1’s finding that diverse groups in business have more positive group work appraisals than nondiverse groups. In contrast, there was limited evidence of these views or practices among local students. Across study contexts, local students did not express interest in mixing with peers from different backgrounds although stories of positive group experiences were occasionally acknowledged.

Although the strong in-group bias among all local students interviewed in Study 2 was consistent with the business findings in Study 1, it was somewhat inconsistent with the findings within science, where a self-selection bias of local, monolingual students who chose to work in diverse groups was identified. Science local students’ reflections on processes of self-selection into diverse or nondiverse groups failed to provide explanations for the Study 1 findings. This suggests that while variability in attitudes towards intercultural interactions was evident in self-selection patterns (Study 1 patterns), students may be unaware of diverse views within their class, or alternatively the views of
science students interviewed in Study 2 were not representative of the overall science student population.

Another notable point is that although in-group bias was evident among both science and business students, for science students, joining a group of close, culturally similar peers emerged simply as a preference given the choice, whereas for business students, especially local students, culturally diverse groups appeared as something to be avoided whenever possible.

**Differences in Explanations Between Study Contexts**

Differences in explanations regarding the process of self-selection also emerged between the two study contexts. These related to proficiency in the language of instruction and academic skills, and peer group familiarity. Diverging explanations for preferences for nondiverse groups were also noted.

**Proficiency in the language of instruction and academic skills.** A recurrent theme in the literature regarding interactions between local and international students is the role of international students’ (real or perceived) insufficient proficiency in the language of instruction (Harrison & Peacock, 2008; Ledwith & Seymore, 2001; Montgomery, 2009). The two distinct contexts in this study made it possible to explore this issue, as distinct from cultural background, on the process of self-selection into groups. In light of the dominance of published studies with business students, it was also useful to examine and compare the experience of students in a different course of study.

Consistent with the literature, Business students’ reflections on the process of group self-selection highlighted the significance of language as a major impediment to join culturally diverse groups. Of concern, though, was evidence that students almost systematically linked language proficiency to other aspects, such as academic skills or work ethics. Local students appeared to be particularly wary of, even deprecatory towards culturally mixed groups. All local students from business, without exception, reported negative prior experiences of working in diverse groups and they invariably pointed to both poor language and academic skills. Many declared that this forced them to check and fix their peers’ contributions, in addition to their own share of the work.

DT (Australian): You feel like you have to go over again and read it. And go through it and fix it up which can be frustrating. Especially, when you know from the start that you gonna [sic] have to do that.

The potential risk to grades due to perceived language difficulties and lower academic standards of international students was a recurrent theme in these students’ explanations for unfavourable attitudes towards self-selecting into diverse groups. Some international students’ comments also appeared to acknowledge this as a problem.

ST (Kenya): You cannot blame her, because this is how it is, but you actually have to go through everything to make sure it is fine.
One international student from non-English speaking background acknowledged initially experiencing difficulties with essay writing and referencing skills, in addition to grappling with the issue of studying in a second language. This student reported unpleasant group work encounters in his 1st year, receiving extensive criticism due to unacceptable work standards. In retrospect, he was appreciative of and grateful for the support of local group members, because their feedback contributed to improving his academic skills and knowledge of local conventions.

TS (France): My English was not very perfect. They noticed my impact was not as good as theirs. So, that is why I got some remarks, ( . . . ) and critics at first. It is not that they gave me a chance, but they helped me. They did help me at first and I really appreciated that.

Overall, it appeared that both local and international students within business considered insufficient language proficiency as a critical issue for effective group work and tended to systematically link deficiencies in language and academic skills.

In contrast, although the issue of language was also explicitly mentioned by international and local Science students, it did not appear to present the same challenges.

OU (Singapore): Some peer groups that have a poor command of English, they find it more difficult to interact because already the language is a barrier. ( . . . ) Like this is quite common, but not in our class.

BI (Australian): Some of them um like most of them speak really good English.

Science students’ perceptions of no language related difficulties were striking in light of such a culturally diverse student population. This might be explained by more stringent academic entry requirements in the science course compared to business, which raises the issue of whether academic level was linked to language proficiency. Since science students nevertheless displayed strong in-group preferences for self-selection into nondiverse small groups, this highlights that poor communication and perceived deficiencies in academic skills are not sufficient to explain this phenomenon, as often implied in prior research.

Differences in familiarity with the peer group (cohort effect). As described in the method section for Study 1, the study contexts (business, science) for the two consecutive studies differed in structure, with science students completing mandatory units and business students completing a combination of mandatory and elective units. Despite similarity in cohort sizes (about 80-100 students at each year level in both courses), science students had multiple opportunities to become familiar with each other and feel part of a cohort since they studied exactly the same units semester after semester, while this was not the case in business.

The cohort effect emerged as a strong theme among both business and science students’ explanations for self-selection into groups. Business students frequently pointed
to the noncohort characteristics of their course. Although group work was a common requirement across business units, most students declared they met new peers every semester, highlighting the high degree of anonymity in the business course.

CU (Australian): I am always with different people, always in different groups every semester.

TD (Australian): You don’t know your class. (. . .) And that is at the beginning of the semester. Of each semester.

Cohort issues also emerged spontaneously in interviews with science students. Remarkably, some science students reflected on the highly segregated nature of student groups in their course in spite of all students being familiar with each other. Consistent across years of study (Years 3-5), students stated that culturally similar groups were formed in the 1st year and subsequently maintained.

BM (Singapore): I found that people had segregated . . . like international students in one group or local students in one group or from different cultures or nationalities.

KS (Swedish): I’m in 4th year now and there is really strong groups now. You can’t get into the groups, because we have already decided which groups belong together and you cannot change them around anymore.

The significance of belonging to a cohort versus being unfamiliar with the peer group, discussed by students from both contexts, will need to be examined in future research. This study revealed that while poor cohort cohesion partly explained difficulties in intercultural mixing (business), cohort presence did not necessarily promote self-selection into diverse groups (science).

Diverging explanations between international students and local students preference for nondiverse groups. International and local students’ additional explanations for self-selection into nondiverse groups often differed depending on study context. The 9 international students from science (5 from Singaporean background) typically justified their choice to work in nondiverse groups through similar group management and allocation of workload practices, and common work standards and ethics. Their comments did not differ across students’ country of origin and invariably focused on task completion and work attitudes, rather than social or interpersonal dimensions of group work.

KS (Swedish): Like at least in my case, my friends are on the same level of understanding as I am . . . it just happened to be that my friends are also like they want to finish their work. They don’t like to run away from doing their part of the work and we are all on the same level. It just works out nicely.
In contrast, the five local students (exclusively from Anglo, monolingual backgrounds) systematically described socioemotional aspects of group work such as having fun, feeling relaxed and comfortable, which in their view was more likely to occur with peers from similar background.

BI (Australian): I mean you always get the work done with your friends, but you also have fun as you are doing it. So, that is obviously going to be better than having to do it where it is just going to be “ok, just go and get it done” and you do not have any fun at all.

Interestingly, international students’ focus on commonalities related to task management and local students’ commonalities related to the socioemotional aspects of group work to explain preference for self-selecting in nondiverse groups were only partly duplicated in the responses of business students. This stresses that enrolment status (local, international) per se is insufficient to explain the nature of students’ intercultural experience.

Like their science counterparts, international students from business (5 students from four different continents) expressed concerns about task management when working with local students. They often described how local students’ time constraints due to off-campus work commitments resulted in their preference for dividing up labour. International students found this frustrating because it meant group assignments were completed in isolation rather than collaboratively. These 5 students tended to be either positive or indifferent but never negative towards interacting with local students for group work, which could reflect the nature of their course of study (business). In addition, most of these students reported spending significant amounts of time with the other international students in their groups to discuss, negotiate, and prepare their assignment.

International students’ tendency and desire to spend more time working collaboratively on group assignments was noted by some local students.

CI (Australian): I find international students have more time allocated to complete work, so they are more university-work oriented. And we are juggling our lives outside uni as well. In that regard you also have a conflict of interest, because I know from myself that I don’t always meet deadlines with my group.

LU (Australian): Especially with international students you just want to get down to the point and “this is what we are doing and this is how we gonna [sic] go about it. You do this and you do that.” Divide the work, come back together.

As a result, many international students felt disappointed and frustrated.

TS (France): You are doing this, doing that, keep in touch on the Internet. Send me your part. That’s it. For all. (laughs) But apparently we passed, so that was amazing at first. The group meetings lasted 15 min.
Interestingly, although many local students recognized their meeting time limitations, they did not appear to desire more interaction with peers from culturally diverse backgrounds. As aforementioned, local students within business spoke at length about international students’ insufficient English and academic skills to explain lack of intercultural mixing, and none recognised missed opportunities for intercultural learning.

Overall, students’ accounts and reflections contributed to explain Study 1’s findings regarding self-selection into diverse or nondiverse groups and also illustrated the nature of their experience in such activities. Yet one unexplained finding concerning students who completed group assignments in nondiverse groups but displayed more negative attitudes towards intercultural mixing at the end of that assignment still remains. This issue is addressed in the next research question.

Why do Students Who Self-Select Into Nondiverse Groups Become More Negative Towards Working in Diverse Groups?

Regardless of study context, Study 1 revealed a significant drop in cultural mix appraisal for nondiverse groups, a finding consistent with Summers and Volet’s (2008) study, conducted with business students across 1st, 2nd, and 3rd year of undergraduate study. Summers and Volet (2008) noted this troubling finding but like in Study 1, which compared students from two distinct instructional contexts, only speculative explanations could be put forward based on quantitative findings. The analysis of students’ own accounts and reflections made it possible to seek an explanation within extended contact theory (Wright, Aron, McLaughlin-Volpe, & Robb, 1997). The extended contact hypothesis postulates that an individual’s awareness of a close enjoyable relationship between an in-group member with an out-group member has the potential to lead to a more favourable attitude towards the out-group as a whole. Likewise, the reverse could also apply, whereby an individual displays more negative attitudes towards an out-group after observing or hearing about an in-group member’s negative, unpleasant experience with a member of that out-group.

Some interview data provided partial support for this explanation but due to students’ skewed accounts of vicarious experience of group work, the findings should be interpreted with caution. Both business and science students reported multiple stories of close friends’ group work experiences. However, the overwhelming majority of these stories involved negative experiences, attributed to personality clashes, unequal contributions, lack of quality of individual components, disagreements over content issues, and subsequent low grades.

KQ (Malaysian): Yes, you do hear about everyone else’s experiences especially the bad ones.

DT (Australian): When you have heard about other people’s bad experiences, you just don’t want to be that person.
Students unanimously admitted that hearing accounts from others influenced their own ideas and, in some cases, reaffirmed their already unfavourable attitudes towards intercultural mixing. A few local students, mostly from science, declared that others’ accounts would only affect them if the names of noncooperating peers were mentioned.

TT (Canadian): Because the next time you ask yourself, “Do I really want to work with them? Because my friend really had a hard time with them.” That’s only if you name names.

Given that science students were familiar with their peers, local students’ negative attitudes toward diverse groups may not have been related to in- and out-group distinctions but rather to negative stories about specific individuals. The in- and out-group distinctions were more evident in the business context where students were relatively unfamiliar with each other.

Reciprocally, and consistent with the extended contact hypothesis, hearing positive stories of successful collaboration with peers from a different cultural background could be expected to create more positive attitudes towards diverse groups. At least one local student from each class mentioned active networking among close peers, enabling recommendations of individuals from different cultural backgrounds who would be good group members due to work attitudes and competences.

Nevertheless, analysis of students’ reflections suggests that degree of familiarity (as with science students) may influence the extended contact hypothesis. For example, it appeared that attitudes towards intercultural mixing and, ultimately, self-selection into diverse groups tended to be affected by perceptions of individuals rather than in-groups.

KS (Swedish): There have been some cases in my class that you kind of changed your whole opinion about someone.

In contrast, when students were unfamiliar with their peer group, distinctions between in-group and out-groups seemed more likely to affect attitudes towards intercultural interactions and self-selection for group activities, for example,

QT (Australian): A lot of other people in that class did get stuck with a few people, who happen to be international students. They did not do so well. And I don’t want to be in a group like that at all.

Furthermore, there were implicit indications that awareness of a close relationship between one in-group peer with an out-group peer may lead to a change in attitudes towards the out-group as a whole. Overall, there was some support for the assumption that students may become more negative towards diverse group work after an experience
Further possible explanations for the overall negative trend in various group work appraisals for nondiverse groups compared to diverse groups found within Business in Study 1 were sought. Interestingly, participants’ accounts of their experience of intercultural interactions and group work in Study 2 were largely inconsistent with the quantitative patterns identified in Study 1. Local students’ anecdotal accounts emphasised satisfactory, pleasant, and nonstressful experiences when working with in-group members, which contradicted Study 1’s findings of negative group work appraisals among nondiverse groups. Yet there was some variability among local students with regard work ethics and study commitment, which may impede or depreciate group work experiences among nondiverse local groups. The extent to which variability in work ethics and study commitment could be linked to the overall student profile (e.g., ability) or subject matter characteristics (e.g., degree of complexity of subject matter knowledge) of particular courses of study should be explored in future research.

Accounts of variability in the work ethics and study commitment of local business students were widespread. International students as well as a few local students’ accounts were quite critical of local students’ tendency to divide up the labour and fail to communicate with their group members, as well as their habit of leaving work to the last minute, ultimately handing in their work share late.

LM (Australian, about a nondiverse group): Everyone just seems to work heaps out of uni. So, a lot of our timetables clash, which makes it really like frustrating and difficult to meet up and get anything done.

RS (Australian, about another local student): And when she was at uni, she could only spare like two or three hours. And we had like group assignments like group projects to hand in and a presentation. And we found it really hard to communicate with her. ( . . . ) Half the time her phone was off. We were so annoyed. It was really difficult for the rest of us.

DT (Australian): I think with international students it is a bit more complex. But local students they don’t get away, they are slack. They understand what is being said. It is just slackness.

Some local students felt frustrated about inefficient group communication and collaboration, and ultimately were upset about unequal work and quality of outcome. Therefore, it could be speculated that the negative appraisals of group work identified among nondiverse groups in Study 1 may be a result of group configurations where members differed in their academic goals, expectations, and study commitments.

Summing up, business students’ accounts provided some insight as to why diverse groups may experience group work more positively than nondiverse groups as identified...
in Study 1. Explaining why local students participating in nondiverse groups can become more negative towards mixing remains, however, speculative. Contributing factors may be found outside local students’ actual experience of group work, for example, in the detrimental impact of heavy work commitment outside class (Ward & Volet, 2008). In any case, the discrepancy between local students’ inclinations to remain with in-group members despite negative group work experiences will need more attention in future research. Finally, the decline in cultural mix appraisal for nondiverse groups across study contexts may be related to mechanisms of the extended contact effect, with possible mediation of contextual characteristics of the learning environment (cohort vs. noncohort) in which it occurred. However, this would need to be further examined.

Limitations of Study 2

Before summarising the key findings, it is important to point to some limitations of this study. First, the sample was relatively small and biased in terms of gender and ethnicity. Significantly, male students within science and monocultural Anglo-Australian students within business did not volunteer for an interview. The extent to which this is representative of these students’ lack of interest in intercultural interactions or is illustrative of the course-specific student population is unclear.

Second, approximately 70% of students in this particular science course were females, explaining the relatively small number of male participants. However, it is unknown whether the pool of local students from non-Anglo background within science was limited or whether these students did not volunteer to participate. The absence of monocultural local participants within business was particularly striking given that this subgroup makes up 67% of the overall local student population. There is no doubt that students from these missing subgroups would have provided additional, valuable insights into intercultural interactions within each study context. This is particularly relevant for monocultural local students as prior research has found that these are least inclined to display positive attitudes towards cultural mixing (e.g., Summers & Volet, 2008).

Finally, the degree to which these findings are generalisable to other study contexts would need to be established. Nonetheless, the cross-contexts consistencies with prior research lend notable support to the significance of findings regardless of specificity of student body and instructional environment.

Discussion and Conclusion of Study 2

Students’ subjective accounts and experiences of mixing with peers from different cultural backgrounds largely converged with the extant literature. The issues of strong detachment between cultural groups and impediments to intercultural interactions such as differences in working styles, management problems, and assessment concerns were highly consistent with prior research on students’ intercultural interactions in academic settings (e.g., De Vita, 2002; Quintrell & Westwood, 1994).
While these themes emerged across study contexts, the study design with two distinct learning contexts was critical to reveal exclusive patterns specific to each educational environment. There was evidence that relational and collaborative dynamics play out differently depending on a combination and interaction of contextual affordances and constraints. Issues related to proficiency in the language of instruction and cohort characteristics appeared to create learning environments that were more (science) and less (business) conducive for rewarding and productive peer interactions and group management. The combined effect of lacking cohesion, communication difficulties, and poor academic skills cocontributed to a less favourable climate for intercultural interactions within business, particularly for local students. Whereas within science, cohort features, language fluency, high academic standards, and strong professional attitudes cogenerated a more constructive environment for culturally diverse group work.

Yet regardless of collaborative enabling or inhibiting characteristics of the learning environment, cultural groups largely studied in parallel and did not interact on a voluntary and frequent basis. Consistent with Volet’s and colleagues’ research (Volet, 1999; Volet & Ang, 1998) local, monolingual students were the most likely to display strong in-group bias. This is undeniably concerning as these students miss out on the valuable intercultural learning opportunities offered to students who choose to have an international education experience (De Wit, 1995). The design and implementation of tasks involving multiple perspectives and which stimulate students to capitalise on each others’ knowledge may be a promising means to overcome students’ hesitations towards intercultural interactions. The beneficial implications of assignment tasks incorporating cultural dimensions and authentic culturally diverse learning activities for fostering intercultural awareness are widely acknowledged in the literature (e.g., Volet, 2004).

**Overall Discussion and Conclusion**

The two consecutive studies clearly emphasise the significance of broader instructional environments for students’ intercultural experiences. Both studies revealed how students’ experiences and subjective accounts of mixing with peers from different cultural backgrounds can vary depending on the organisational structure and instructional features of the specific learning context. The issue of cohort vs. noncohort emerged as a potentially additional explanatory factor although mainly in regard to the reasons given by students for mixing or nonmixing. The findings point to the value of creating a sense of cohort among students as it appears to potentially facilitate intercultural interactions among peers due to increased peer familiarity and acquaintance. Interestingly, while insufficient language proficiency was confirmed as a critical contributing factor for paucity of interactions, there was evidence that even when language was not an issue, students still preferred to work in nondiverse groups.

Of significance for future research are the discrepancies between quantitatively identified patterns and students’ anecdotal accounts. While these could, in part, reflect
some different participants between studies, they nevertheless stress the criticality of using multimehtods approaches when studying attitudes towards, and experiences of, interactions. Overall, these findings highlight the complex, multifaceted, and changing nature of intercultural experiences in students’ real life contexts. The paradox and complexities in students’ perceptions of and attitudes towards intercultural interactions were also documented by Harrison and Peacock (2007). Especially striking was the contradiction in local students’ tendency to self-select into nondiverse groups (Study 1) explained in terms of leading to more satisfactory, pleasant, and less stressful experience (Study 2) and the concurrent finding of nondiverse groups’ negative group work appraisals (Study 1). It seems plausible that although students may experience difficulties when working with in-group members, they nevertheless find nondiverse group work less demanding than anticipated socioemotional, sociocultural, and attitudinal challenges emerging in culturally diverse groups. Consequently, these findings shed doubt on the exclusive reliance on students’ anecdotal reports and emphasise the richness of mixed method approaches (Johnson & Onwuegbuzie, 2004) to investigate the complex interplay of academic, relational, emotional, and contextual aspects for intercultural interactions in the university context.

From an educational perspective, these findings highlight the important role of teachers in designing and monitoring learning activities for culturally diverse groups that are perceived as personally rewarding, academically enriching, and professionally relevant. This could best be achieved by deliberate efforts to constructively capitalise on cultural diversity for raising students’ awareness of future workplace demands and by embedding the relevance of intercultural competencies in the context of prospective professional practice. Group learning activities that incorporate cultural dimensions of the professions and that are carried out with continuous, structured teacher support are expected to lead to positive, secure, and rewarding experiences for all students involved. As part of regular teaching, teachers need to be sensitive to and prepared for potential challenges arising in culturally diverse group work. Especially in the context of the internationalisation of higher education and internationalised curricula, teachers and course designers have a responsibility to facilitate the development of students’ intercultural competencies as an integral part of university study (De Wit, 1995; Otten, 2003). Moreover, further research is required to investigate the mechanisms of the extended contact effect (Wright et al., 1997) that seemed to play a vital role for students’ attitudes regardless of personal experiences. This research suggests the extended contact effect may play out differently depending on characteristics of the study context, such as cohort vs. noncohort. These dynamics will require more attention in future research.

On evidence that culturally homogeneous groups are firmly established within the first year of study, it appears imperative to promote intercultural interactions and amenable attitudes towards intercultural encounters from the very start of students’ study experiences. Early prevention of systemic in-group favouritism is critical on multicultural campuses and activities conducive to rewarding intercultural interactions and learning need to be maintained throughout all years of study.
Finally, given that students’ intercultural experiences are not exclusively limited to formal classroom situations, future research on intercultural interactions should extend the scope of investigation towards other types of social contexts. This would provide a more holistic picture of how students’ experiences across multiple settings interact, impede, or combine to produce specific intercultural appraisals and, ultimately, attitudes.

Appendix

Composition of Groups and Characteristics of Interview Participants

<table>
<thead>
<tr>
<th>Interview Groups</th>
<th>Nationality (cultural background)</th>
<th>Language</th>
<th>Gender</th>
<th>Year</th>
</tr>
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<tr>
<td>Business</td>
<td>Australian (Iranian)</td>
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<tr>
<td></td>
<td>Australian (South African)</td>
<td>Monolingual</td>
<td>Male</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Australian (Italian)</td>
<td>Monolingual</td>
<td>Female</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Australian (Croatian)</td>
<td>Monolingual</td>
<td>Female</td>
<td>3</td>
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<tr>
<td></td>
<td>Australian (Croatian)</td>
<td>Multilingual</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>Australian (Anglo)</td>
<td>Multilingual</td>
<td>Female</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Australian (Indian)</td>
<td>Multilingual</td>
<td>Female</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Australian (Indian)</td>
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Note

1. The data reported in this study are part of a comprehensive research project on the significance of context on university students’ (meta)cognitions related to group work, reported in Kimmel and Volet (in press).

References


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Intercultural interactions at university: New insights from an activity theory and multiple contexts perspective

STUDY 3
Intercultural interactions at university: New insights from an activity theory and multiple contexts perspective

Abstract
This article explores the context-sensitive and interdependent nature of students’ intercultural interactions from a combined activity theory and multiple context perspective. Intercultural interactions were construed as social activities nested within complex, overlapping or embedded, interacting activity systems, represented by the multiple formal, educational and informal, social contexts in which students participate on a daily basis. Interpreting students’ accounts and reflections from this perspective highlighted contextual affordances but also limitations for intercultural interactions within and across environments. Context-sensitive explanations provided new insights into missed opportunities for intercultural interactions in activities characterized by their temporary or dysfunctional nature. An unexpected finding was the role of the close, culturally similar peer group in preventing its members to engage with peers from different backgrounds. Overall, this paper demonstrates the usefulness of activity theory concepts and a multiple context perspective for understanding intercultural interactions as it captures these phenomena in the complexities of everyday lives.
**Introduction**

The paucity of interactions among university students from culturally diverse backgrounds is widely documented in the higher education literature. This phenomenon is observed across all English-speaking countries hosting large numbers of international students, such as the United States, the United Kingdom, Australia, Canada, and New Zealand (e.g., de Vita, 2002; Ledwith, Lee, Manfredi, & Wildish, 1998; Leki, 2001; Myles & Cheng, 2003; Trice, 2004; Ward, 2001) as well as non-English speaking host countries, for example, Japan (Tanaka, Takai, Kohyama, Fujihara, & Minami, 1997). Recent research highlights the missed opportunities for intercultural learning and more generally for achieving the social goals of the internationalization of higher education (Knight, 2004; Otten, 2009; Summers & Volet, 2008).

Yet, a close examination of the extant literature on intercultural interactions reveals narrow conceptualizations of that construct. For example, the highly situation specific characteristics of the formal and informal daily activities that shape interactions as well as the fundamentally interdependent nature of interactions, have been overlooked. Moreover, few studies have conceptualized and empirically examined intercultural interactions across contexts, with most investigations relying on one sample and a single context. On the assumption that students simultaneously participate in multiple activities (on- and off-campus), such methodologies, and their conceptual grounding, have limited potential to reveal the complex, interdependent, and context-sensitive nature of intercultural interactions.

Understanding intercultural interactions as embedded within activities calls for a conceptual perspective that can capture the systemic and situated nature of interactions. It is argued and demonstrated in this paper that activity theory (e.g., Leont’ev, 1978; Engeström, 2001; Nardi, 1997) provides a useful conceptual grounding because of its emphasis on complex
interrelations between individuals and their social environments. Furthermore, understanding intercultural interactions as enacted across multiple contexts calls for an approach that acknowledges the overlapping or embedded nature of the multiple activity systems in which individuals participate.

In this paper, students’ experiential accounts and reflections on their intercultural interactions are therefore interpreted from a combined activity theory and multiple contexts perspective, in an attempt to provide new insights on the origin of missed opportunities for intercultural learning at university.

**Intercultural interactions at university**

Empirical studies conducted around the world converge to show that the scarcity of interactions between students from diverse cultural-educational backgrounds is a universal phenomenon, with evidence across formal educational contexts as well as informal social settings.

Research focusing on formal educational contexts, has highlighted the importance placed by all students on learning and working with peers from same or similar cultural backgrounds (e.g., Dunne, 2009; Kimmel & Volet, in press; Nesdale & Todd, 2000; Volet & Ang, 1998). Inhibiting factors specific to study environments have emerged from native speakers’ accounts, mostly domestic students. These include assessment-related concerns, communication impediments, and perceived lesser ability of non-native speakers (de Vita, 2002; Harrison & Peacock, 2009; Ledwith & Seymore, 2001; Montgomery, 2009; Peacock & Harrison, 2009; Spencer-Rodgers & McGovern, 2002). Assessment related concerns in particular emerge as a major impediment to the formation of culturally mixed groups for group assignments, even though such concerns may be unfounded (de Vita, 2002). Another
impeding factor also stressed by native speakers is the perception that peers who have language difficulties also have academic limitations (Ledwith & Seymore, 2001; Kimmel & Volet, in press), which sometimes extends to other aspects, such as academic skills or work ethics (Harrison & Peacock, 2009). Overall, these findings are disconcerting, especially on the evidence that students working in culturally diverse groups tend to report more positive group experiences (Summers & Volet, 2008) and may produce better project outcomes (Watson, Johnson, & Zgourides, 2002) than culturally homogenous groups.

Given the nature of perceived barriers for interactions in formal learning environments, it seems reasonable to expect that intercultural exchange in informal social settings would occur more frequently and be perceived more positively. Yet, a few studies that investigated intercultural interactions between student groups in informal social settings (e.g., Halualani et al., 2004; Nesdale & Todd, 2000) revealed that this was not the case. Limited intercultural interactions extend beyond academic learning situations to informal social settings. Studies on friendship patterns (e.g., Arthur, 2004; Heggies & Jackson, 2003) between domestic and international students at English-speaking universities showed that language barriers, perceived cultural differences, as well as lack of confidence in intercultural relational skills prevent international students from developing meaningful relationships with domestic students. As for the host students, apathy, indifference, racial or ethnic stereotypes, xenophobia and racism have been reported as significant inhibiting factors for initiating contact with people from culturally and linguistically diverse backgrounds (Baldwin, Day, & Hecht, 2000; Spencer-Rodgers, 2001; Ward, 2001).

In sum, even though universities could be perceived as environments naturally conducive to intercultural interactions due to the cultural diversity of their student bodies, there is strong evidence that such interactions are not occurring on a regular, intentional basis. The extant
research on intercultural interactions, however, appears fragmented, often using methodologies involving isolated situations where interactions are expected to occur, in order to elicit students’ accounts of their intercultural experiences in these contexts. In reality, students participate in multiple collective activities, formal and informal, study related or social in nature. These may overlap, interact and even clash with each other, for example, when achieving the aim of one activity may prevent achieving the aim of another. One could even imagine that experience of intercultural interactions with the same people may be successful in one activity and not in another, due to the specific nature, purpose and conditions of the respective activities. To gain further insight into the complex, interdependent and context-sensitive nature of intercultural interactions, it seems promising to turn towards activity theory and a multiple contexts approach.

A combined activity theory and multiple contexts perspective for interpreting intercultural interactions

*Intercultural interactions within an activity system.* Building upon socially situated and activity theory perspectives (e.g., Engeström, 1993, 2001; Lave, 1993, Leont’ev, 1978; Nardi, 1997), an intercultural interaction can be conceived as an activity as it comprises all the essential elements of an activity system: subjects, objects and actions. Subjects would refer to students or groups of students from diverse cultural backgrounds whose interactions “cannot be analysed in isolation from the “context of [their] socially situated activity”” (Lave, 1993, p.5). Depending on the socially constituted world within which their interactions take place, students are expected to engage in different types of intercultural activities for the accomplishment of various objects or goals. For Nardi (1997), these objects or goals represent what drives the activity in a certain direction. This suggests that students’ intercultural interactions are best interpreted against the frame of each activity object and in regard to the specific socially situated activity in which they occur. Consistent with Engeström’s (1993)
claim that “contexts are neither containers nor situationally created experiential spaces” but “activity systems” (p.63), the construct of activity, thus, represents “the minimal meaningful context to understand individual actions” (Kuutti, 1996, p.25). As activities may vary across social situations, they have to be investigated accordingly - otherwise the complex, interdependent, and context-sensitive nature of interactions cannot be determined.

For instance, intercultural interactions in a formal educational context can take place in group learning activities where group membership is culturally diverse. In such activities, students’ actions such as discussions, question asking, explanations, negotiations, explorations of ideas (i.e., directed, conscious processes (e.g., Kuutti, 1996)) are aimed at successful task completion and getting a good grade (object). Hence, the functional aim of intercultural interactions in this specific case is task accomplishment and doing well. By contrast, intercultural interactions in an informal social setting could be a visit to a café by a culturally diverse group of students. In such an activity, individuals’ actions, such as chatting, social drinking or playing pool are aimed at relaxation and entertainment (object). Here the functional aim is spending an enjoyable and relaxing evening.

Two further characteristics of activity systems highlighted by Engeström (1993, 2001) are noteworthy for understanding intercultural interactions: division of labour and multi-voicedness. In the context of group work, where members have similar status and are expected to make equal contributions, Engeström’s notion of “horizontal division of tasks between the members of the community” (1993, p.67) appears highly relevant, given the challenging nature of group learning activities at university. The notion of multi-voicedness is also attractive since acknowledging participants’ multiple traditions, interests and viewpoints, is often necessary to successfully negotiate the task demands. Multi-voicedness becomes critical when trying to implement horizontal division of labour, since students are positioned
differently depending on their capacity to contribute to task completion. Hence, division of labour and multi-voicedness play an important role in culturally diverse activity systems, because individuals may (unconsciously) endorse diverging expectations, interactional and communicative styles which can inhibit efficient task completion.

Based on prior research regarding intercultural interactions in formal learning contexts, one could speculate that artificially created intercultural activities may not foster intercultural relational development among diverse peers. This is because the object of the intercultural activity of group work (task completion) does not require deep levels of relational development between group members for success. This leads to the assumption that students from diverse backgrounds may fail to engage in meaningful interpersonal processes while working together on a group project simply because that activity does not afford it. In other words, students share the same understanding of the object and the actions required to complete the activity – but in an instrumental way (complete the task) and not on a social, interpersonal level.

**Intercultural interactions at the interface of multiple activity systems.** Considering that students continuously move between and participate in multiple concurrent activities (e.g., Engeström, Engeström, & Kärkkäinen, 1995), it could be argued that a different social context may afford different types of activities, and hence, relational dynamics may unfold in diverging ways. This idea is supported by activity theorists’ claim that individuals’ behaviors are rooted in distinct patterns of social, collective practice (e.g., Engeström, 1999), which emanate from evolving and complex interrelations between individuals and their surroundings (e.g., Engeström, 2001). Consequently, activities must be conceptualized as highly situation-specific and social in nature.
For instance, informal social activities may entail affordances and constraints for intercultural exchange that differ from those experienced in formal, academic activities. This is because their respective norms, conventions, expectations, and social relations vary substantially. Therefore, although encounters in both formal and informal contexts may require the same action (intercultural interaction), the activities could vary due to dissimilarity in the objects (goals) and contextual conditions (e.g., Nardi, 1997). This can be illustrated by comparing students’ goals for, respectively, a formal group work activity in a culturally diverse group (task completion) and an informal activity in a culturally diverse group (social enjoyment, relationship formation). Another major difference is that the latter entails actions naturally conducive for relational development (e.g., chatting, going to the movies, clubbing), and occurring on a voluntary basis, thus providing a more promising ground for relationship development.

In conclusion, it is posited that concepts from activity theory embedded within a multiple contexts perspective provide a useful conceptual grounding to address the disconcerting issue of limited intercultural interactions between students from diverse backgrounds at university. This proposal is based on the assumptions that concepts from activity theory capture the systemic and situated nature of intercultural interactions as activities, and a multiple context perspective acknowledges that intercultural activity occurs in multiple contexts or activity systems. This combined conceptual approach was used in an empirical investigation that addressed two questions:

- *How do students account for intercultural activities in formal academic and informal social contexts?*
- *To what extent are experiences of intercultural activities in formal, educational and informal, social contexts related, and possibly cross-fertilize each other?*
Empirical investigation of students’ intercultural activities in formal and informal contexts

Data were obtained in semi-structured, in-depth interviews with 27 university students from two programmes of study (Business, Science) and a range of cultural-educational backgrounds (mono-lingual and multi-lingual/cultural domestic students, and multi-lingual/cultural international students). The main aim of these interviews, conducted in a conversation-format by an interviewer whose background differed from all interviewees, was to elicit students’ intercultural experiences across multiple social contexts (i.e., formal, on campus and informal, social, off-campus).

To establish an interview climate conducive to discussing interpersonal issues, the interviewer took great care to position herself as close as possible from her interviewees (Scollon & Wong-Scollon, 2001). This was achieved through releasing selective information about her background, respectively her considerable experience of living locally when interviewing local residents, and her personal experience as an international student from non-English speaking background when interviewing international students with a similar profile. In addition to tailoring herself through self-disclosure (Glesne & Peshkin, 1992), the interviewer made every effort to stay neutral in order to encourage participants to talk openly about both positive and negative intercultural experiences.

Transcripts of the interview data were segmented into idea units and content analysed iteratively through an inductive-deductive procedure (Chi, 1997; Mayring, 2000). The analyses began with a small set of interviews using a limited set of themes derived from prior research. Whenever text segments entailed information that seemed relevant for activity-oriented theoretical considerations, but were not embraced by the given topics, a new theme was added. The revised analytical scheme was then applied to another set of interviews and
this procedure was repeated several times. In the final phase, all transcripts were re-examined with the last version of the analytical scheme. Throughout the procedure, careful attention was given to identifying any statements and evidence of deviant patterns and issues that did not converge with the dominant, recurring themes, and these were allocated correspondingly (Patton, 2002).

Since the study had an exploratory character, the subsequently presented accounts mainly serve to illustrate the usefulness of an activity theory and multiple contexts perspective to understand the complex, interdependent and context-sensitive nature of intercultural interactions.

**Intercultural interactions in formal academic activities (Research question 1, part 1)**

Three themes emerged from students’ accounts and reflections on intercultural interactions in formal, group assessed learning activities: agency in participation; interdependence in dysfunctional groups; and constraints from broader life activities. All three themes highlighted the value of interpreting intercultural interactions as embedded within complex activity systems where subjects, objects and other activity systems interact in dynamic ways.

*Agency in participation.* Overwhelmingly and consistent with prior research, all students expressed strong inclinations to work and stay with culturally similar peers for the completion of formal group learning activities. None of the interviewees reported deliberate personal efforts to form or join culturally diverse small groups for group assignments. The opportunity to exercise personal agency for group formation was, however, not always available and denied exertion of personal agency attracted strong negative emotions, for example, “I usually get upset when they put me with people I do not know”. Many Business students spoke emphatically about being ‘forced to work with and relate to others’, having tutors “[make] us
form groups and we are forced to sit beside” and ultimately having to “make yourself get along with them”. Although concerns about assigned group membership were not always expressed explicitly in terms of forced interactions with peers from different cultural backgrounds, the context of the interview conversation was sufficiently clear to support this assumption. These findings are consistent with prior studies documenting students’ negative attitudes towards culturally mixed groups for formal group learning activities (Ippolito, 2007; Montgomery, 2009; Summers & Volet, 2008) and highlight how strongly these can be resented when imposed.

A disconcerting finding, reported by students across prior cultural-educational backgrounds and fields of study, was that lack of spontaneous interactions for group assignments was still prevalent in later years. This suggests that early practices of privileging participation in culturally homogeneous groups creates separate, culturally bound activity systems whose borders become consolidated over time and ultimately impossible to cross.

KS (Swedish): I’m in fourth year now and there are really strong groups now. You can’t get into the groups, because we have already decided which groups belong together and you cannot change them around anymore.

TT (Canadian): The class in general has very distinct groups and I have not found a place where you just walk in and fit with any group. I find it's very segregated who you think you sit with.

KO (Australian): We have a group who are always sitting next to each other. You do not feel too encouraged to go and talk to them, because they look like they block it.

For students, one of the major reasons contributing to the development of negative attitudes towards culturally diverse groups was the perception that a peer group with presumed divergent educational histories, expectations and goals, may undermine successful task
completion. These concerns appeared exacerbated by the interdependent nature of group activities in dysfunctional groups, as elaborated below.

*Interdependence in dysfunctional groups.* The success of any group learning activity, whether assessed or not, is dependent on all members’ engagement and contributions. However, when the outcome is assessed, the interdependent nature of the work creates anxieties due to reliance on peers for achievement. For most students, anxieties increase when group members are not familiar with each other, which is inevitably the case when the group comprises peers from diverse cultural-educational backgrounds. Interviewees were unanimous in the view that assignments completed in diverse groups were more challenging than those carried out with peers from the same background.

*BT (Australian): When you are working with people you know it is actually a lot less stressful, because you don’t have to worry about whether they gonna [sic] get it done, whether they gonna [sic] do it right.*

*TS (France): I don't know if I will have or I will do what they expect from me (...) and I hope I will be accepted.*

These comments are reminiscent of Engeström (2001)’s concept of multi-voicedness in groups composed of culturally diverse peers, where multiplicity can be expressed in terms of differences in interactional styles and work expectations or communication impediments. This was the case in the present study, with students’ accounts of intercultural interactions revealing a perceived lack of consensus regarding norms, conventions and social practices. On the grounds that social exchange forms the basis upon which meaning and understanding develop and, ultimately, the object of the activity is accomplished, lack of consensus on mutually accepted interactional and communicative styles represents an important inhibiting factor.
Yet interestingly, reference to multiple styles of interaction and work expectations generated by diverse cultural-educational backgrounds came only from Business interviewees. Their reports were invariably accompanied by concerns about dysfunctionality of groups, where typically some members could not contribute adequately due to insufficient language proficiency and academic skills. There were recurrent accounts by native speakers of having to check, correct and modify the contributions of their non-native speakers’ counterparts, in addition to completing their own share of the work.

    ST (Australia): Like it (the work) is all over the place and we just forget about it and alter it ourselves, because we do not want to fail. And, if I have to work with a group like this (sighs) it just drives me up the wall. Terrible.

    TS (France): My English was not very perfect. (...) They noticed my impact was not as good as theirs. So, that is why I got some remarks, (...) and critics at first.

These experiences illustrate Engeström’s (1993) emphasis on horizontal division of labour within activity systems. This study showed evidence of strong irregularities in the horizontal division of labour due to some individuals not being entirely “functional” in terms of object achievement. Functional imbalance between participants in an activity system calls for compensation, which in the present situation was provided by native speakers. The unequal positioning of students within their small groups was at the cost of serious emotional frictions spanning from disappointment, anxieties and feelings of unease to frustration and anger. Within Business, native speakers as well as students with language deficiencies acknowledged that many groups were dysfunctional in terms of distribution of labour.

Strikingly, there were no reports of functionally imbalanced groups, nor any accounts of resentment if denied agency to self-select groups among Science interviewees. Explanations can be sought in the characteristics of students within Science, namely, more stringent academic and language requirements at university entry compared to Business, widespread
determination to achieve high marks, and a high level of professionalism constantly nurtured by teachers. Since Science students nevertheless displayed strong in-group cultural bias when allowed to form their own groups, it can be concluded that opportunities for intercultural interactions are not spontaneously sought in the context of formal group learning activities. Assigned membership to culturally diverse groups, however, may have an impact on students’ intercultural experience but only when culturally diverse groups are functionally constricted due to factors other than cultural background, as was the case within Business.

Constraints from broader life activities. One key principle of activity theory is that object-oriented activity systems need to be interpreted in their network relations to other activity systems (Engeström, 2001). This principle was highly relevant to explain the impact of broader life activities as well as study programme activities on students’ intercultural interactions as part of a formal learning activity.

Most international students emphasized academic work as their first priority. These students seemed to experience fewer competing demands on their study time, possibly because they were removed from their most important social groups, family and friends. In contrast many domestic students declared that ‘having a life outside university’ prevented fuller participation in group assignments. Interestingly, the constraints created work commitments and family obligations, emerged as a problem mainly for domestic students in the Business programme.

BT (Australian): *International students come here to study. We, we are here, because we live here. (…) I live out of a mortgage like I cannot put that much priority on studying all the time. I have to work to keep up my pay. (…) So when I’m working with someone who wants to get an HD, although I would love to get an HD in everything I just, I can’t. I don’t get enough time to get those grades.*

According to domestic students, their limited availability for group meetings interfered with participation in group assignments and inevitably reduced opportunities for intercultural
interactions. The problem this created was also reported by international students, which is not surprising given group work is a relational activity. Interpreted from an activity theory perspective, work and family form broad life activity systems, which interact with study activity systems, each creating contextual constraints for the achievement of the other.

The finding that off-campus commitments was reported almost exclusively by Business students could partly be explained by the fact that Science students were enrolled in the same mandatory units, which facilitated the organization of group meetings. In contrast Business students had to coordinate complex timetables in addition to juggling the off-campus commitments of domestic students.

*KT (Australian)*: Everyone just seems to work heaps out of uni. So, a lot of our timetables clash which made it really like frustrating and difficult to meet up and get anything done.

*BH (Australian)*: So I find international students have more time allocated to complete work (...) they are more university work oriented. And we are juggling our lives outside uni as well. In that regard you also have a conflict in interest, because I know from myself I don't always meet deadlines with my group.

In sum, contextual constraints from broader life activities seemed to compete for students’ time for formal group learning activities and consequently intercultural interactions. The striking difference between Business and Science students’ experience stresses that intercultural interactions have to be interpreted in the context of the broader activity systems in which they are embedded. Furthermore, in the context of formal group learning activities, intercultural interactions appeared merely as a means of fulfilling task requirements, with no evidence of intentional intercultural socializing. Whether intercultural interactions play out differently in informal social activities is examined next.
Intercultural activities in informal social activities (Research question 1, part 2)

This section is organized around five themes, starting by the three afore identified themes, followed by two additional themes that emerged from reflections on intercultural encounters in informal activities: social conventions and personal interests.

Agency in participation and interdependence in dysfunctional groups. In contrast to formal learning activities where group membership can be imposed and participation in a dysfunctional group has major implications for individual academic achievement, informal social activities occur in self-generated groups with outcomes aimed at relaxation and enjoyment. Across study programmes, students unanimously volunteered that intercultural exchange was easier and less stressful in informal social settings.

Students frequently stressed that absence of assessment concerns produced more relaxed situations where intercultural interactions were more likely to occur naturally. Some statements conveyed the impression that students voluntarily engaged in informal encounters as a direct consequence of lack of academic concerns. There was a sense that informal interpersonal encounters were characterized by personal agency and thus involved positive emotional and motivational orientations towards intercultural interactions.

TT (Canadian): *It is just that grading thing that makes a big difference. It’s a lot different pressure on how we interact sometimes.*

RR (Australian): *You are not in a university environment. So when you are out of university, it is just all about going out and having fun and that sort of thing. So, I think people do tend to mix.*

Yet, despite these converging perceptions, students’ accounts showed little evidence that meaningful intercultural social relationships were developing outside university. The majority
of interviewees described these encounters as unplanned episodes of mixing which occurred by chance and resulted in acquaintance-like relationships.

QT (Australian): *You would say hello and stuff, but it is not that you, um, all of a sudden would go out and have coffee together or something.*

Moreover, *constraints from broader life activities* also appeared to impact on intercultural interactions in informal settings. As with study activities, students’ personal life circumstances seemed to prevent relational development, with direct implications for informal intercultural interactions. Consistent with prior research, domestic and international students alike reported interacting mainly within culturally similar peers outside university.

JM (Malaysian): *Also, (local) students they have their own lives and their own groups, their own cliques. They already have their own friends. After class they just have their own activities.*

TS (France): *Most of my friends are from France. And so that is why I spend most of my time with them instead of local students.*

Consistent with the findings related to formal academic contexts, students seemed to belong to, and socially engage in separate culturally bound activity systems. Their accounts implied that culturally homogenous peer groups were consolidated social entities, which operated alongside each other with limited scope for any relational development across cultural groups.

In sum, although students could exercise personal agency and select peers they wanted to interact with for social activities, there was hardly any evidence of spontaneous intercultural interactions for informal activities, whether on- or off-campus. The themes of
social conventions and personal interests provide some tentative explanations for this disconcerting situation.

*Social conventions.* From an activity perspective, multi-voicedness in a community of practice can bring contradictions in social conventions due to participants’ diverse histories. These can be powerful since grounded in well-established practices prior to university. This phenomenon was evident in this study. Students’ accounts lent support to the assumption that what is considered appropriate interactional, conversational and relational practices can differ substantially between students from culturally diverse backgrounds. When referring to mixing with peers from different cultural backgrounds, many students pointed to diverging interests and dissimilar interactional styles.

KL (Australian): *I think it is a lot easier to relate to people who have lived here, because a lot of us then have stuff in common like high school or we have stuff to talk about. So, it is easier to socialize with them, (...) as opposed to someone who has lived most of their lives overseas.*

Finding a topic of conversation that both parties would find interesting was frequently mentioned as an inhibiting factor for mixing informally, *“We have nothing to relate to”,* *“there is no common ground”,* *“it is hard to just talk to them”.*

SC (Singaporean): *You can put me together with Australians now and I would not have any idea of what to say to them.*

Furthermore, sense of humour was repeatedly mentioned as a powerful inhibiting factor for intercultural interactions. For many students, a different sense of humour lead to confusion and misunderstandings, thus preventing engagement in intercultural activities where the purpose was to relax and have fun. Activity theory, points to the central role of contradictions
as sources of change and development but provided “innovative attempts [are made] to change the activity” (Engeström, 2001, p.137). In this study, there was no evidence of students’ genuine interest in learning new ways of socially interacting and having fun. Deviations from familiar social practices were perceived as barriers to interactions that students simply avoided.

Personal interests. Interestingly, while students unanimously expressed the desire to relax and enjoy themselves through informal social activities, what they considered relaxing and enjoyable differed. For example, organizing social parties and social drinking were fairly prominent among domestic students but were not a priority for many students from different cultural backgrounds. Students from different social traditions rather enjoyed visiting each other at home, watching a show, or going out and having dinner with friends.

MS (Singapore): *Australian Vet camp will probably have a lot do with drinking and partying. Myself I am not so interested in drinking (...) it is not my cup of tea. (...) Even though there are social events where you could go and get to know more people if you wanted to, the activities that they do, must somehow pick your interest.*

KQ (Malaysian): *We like to have nights where everyone just brings a dish or something. And we all just hang out. Like it is just that sort of thing.*

KS (Swedish): *Like we don’t drink, we don’t smoke. So it is ridiculous to be at a place where everyone is drunk.*

This finding stresses the importance of considering individually attributed purposes for activities. Using activity concepts, it can be argued that while all students were striving for an identical object (entertainment, relaxation, enjoyment), their chosen actions to accomplish that object differed. In the context of intercultural encounters where such differences are
exacerbated, participants need to appreciate their differences and show some interest in each other’s forms of enjoyment, and engage in negotiation and compromise. This study provided limited evidence of any such initiatives. This may, in part, explain why occasional intercultural interactions in informal settings were largely coincidental and unplanned in nature.

In sum, students’ experiences of mixing with peers from different cultural backgrounds were perceived as socially and emotionally challenging in both formal and informal settings. Each context generated distinct affordances and constraints for intercultural relational development but overall there was limited evidence of students’ interest to engage in sustained, meaningful intercultural interactions with peers from backgrounds perceived as different to their own.

The extent to which students’ experiences and perceptions of intercultural activities in formal and informal contexts interrelate and possibly cross-fertilize each other is examined in the last section, which addresses the second research question.

**Relationship and possible cross-fertilization of experiences of intercultural interactions across formal and informal activities (Research question 2)**

Two themes emerged as important when scrutinizing students’ experiences of intercultural interactions across formal and informal activities, namely, the temporary nature of intercultural interactions, and the power of peer pressure.

**Temporary nature of intercultural activities.** Consistent across study programmes were troubling findings that although group assignments could make a difference in students becoming acquainted with culturally different peers, these exercises were in most instances insufficient to establish meaningful relationships. The main focus, and indeed object of actions in group activities, was task completion driven by assessment concerns. Particularly
within Business, the combination of group assessment, complex timetables and external constraints seemed to create an environment unsuitable for intercultural relational development with the short-term nature of most projects further inhibiting interpersonal and collaborative processes. The end of a group project automatically terminated group members’ interactions. This temporary nature of group assignments is consistent with an activity theory perspective, which views activity systems as object-oriented. Thus, accomplishment of the object can be expected to lead to dissolution of the activity system.

NM (Malaysian): *We don’t hang out. We just meet up for a group. That is all.*

QT (Australian): *You meet up with them, because you have to and work with them. (...)*

*After that you just fall back into the group that you have been hanging around with.*

This interpretation is supported by the finding that such experiences were reported not only by Business students who seldom interacted with peers outside group projects, but also by Science students who attended the same classes day after day, year after year. From a perspective of intercultural relational development, this finding was particularly disconcerting as some projects within Science required intensive collaboration over extended periods of time. These involved compulsory, non-assessed, off-campus internships for practical training, often in remote locations. Students were randomly assigned to these internships, thus often ended up paired with peers from unfamiliar cultural backgrounds, with whom they worked closely, and even shared accommodation over several weeks. Such circumstances are expected to create rich, positive opportunities for students to get to know each other well on a personal level. Based on students’ accounts, this was indeed the case, which naturally leads to expectations of positive cross-fertilization to subsequent intercultural activities back on campus.
Yet, students’ accounts did not provide any support for this expectation. Despite some evidence of familiarization and relationship development between culturally dissimilar peers, this did not seem to transfer to subsequent formal, academic activities, or was not mentioned. Students indicated that their relationships waned as soon as the practical training was over and they returned to university settings. As with group work, the end of the internship signaled the end of a temporary activity system, thus the end of participants’ social interactions. Particularly troubling were accounts that even when the shared experience had been highly enjoyable the intercultural exchange was not pursued back on campus. In other words, it was a situated event, insufficient to sustain an ongoing intercultural relationship.

BM (Singaporean, Science): *Like even we have been on farm pracs together where we spent two whole weeks living with that person and getting to know them. Coming back to uni we don’t establish that relationship anymore. We don’t carry it further.*

BI (Australian, Science): *It is like you socialize outside of uni and you come back to uni and it is all back like it used to be.*

From an activity theory perspective, completion of the practical training was the primary object of the activity, an object conceived as educational in nature, the social aspects being simply the means to accomplish that object. Thus, the fact that interactions within the groups were positive and enjoyable represented a pleasant addition to the educational experience but was of no consequence per se.

This finding remains disconcerting. How could engaging in mutually rewarding social exchanges with peers and managing cultural differences to the point of reporting a most enjoyable time together, have no impact on subsequent interactions? This social phenomenon is not easy to explain. Students’ reflections suggest that lack of cross-fertilization could be attributed to peer pressure, a phenomenon that would transcend the context of specific
activities. The significant role of the individual’s close peer group or in-group (Allport, 1954, 1979; Pettigrew, 1998) for intercultural activities has been overlooked in prior research on intercultural interactions and is discussed next.

**Power of peer pressure.** Students’ accounts pointed to the potentially powerful role of cliques of culturally similar peers in inhibiting individual effort to engage in intercultural exchange outside the group. Students stressed that the primary object of belonging to a culturally close peer group was to experience a sense of comfort, security and belongingness. However, although they spoke highly of the benefits of such groups, some students added that when groups became cliques, they could exert sufficient power on their members to prevent individual engagement in activities outside the group.

*TS (France):* So that some people can say "yeah you are some kind of traitor". Some of my friends say "why do you want to do that?“ (work with others)

*TT (Canadian):* There was a group project where I distinctly chose not to work with them which was hard because I knew it might offend them. Yeah and one of them took it quite badly and so the friendship is quite broken now at that point.

Students’ attitudes and openness towards intercultural interactions, thus, appeared influenced by their own peer group, especially when that group acted as a clique and expected friendship exclusivity. Salient themes were risk of negative evaluation and peer group disapproval if engaging with culturally dissimilar others, ultimately leading to fear of jeopardizing existing friendships.

It could be speculated that since peer groups fulfill the critical emotional needs of their members, the risk of jeopardizing these through initiating relationships outside the group was perceived as undesirable. Thus, the combination of group’s solidarity demand and students’ need for belongingness may have co-shaped individuals’ cautious orientation towards mixing
with peers from different cultural backgrounds. While evidence of peer pressure was found across programmes of study, this phenomenon seemed more prevalent within Science where students were better acquainted. This would be expected as the by-product of a smaller cohort in which relationships were of higher intensity and quality compared to a wider cohort (Business) where the peer network was less firmly established.

**Conclusion**

This article adopted a combined activity theory and multiple contexts perspective to interpret students’ experiential accounts and reflections on their intercultural interactions at university. Intercultural interactions were construed as social activities nested within complex activity systems where subjects, objects and other activity systems interact in dynamic ways (e.g., Engeström, 2001; Nardi, 1997). This conceptual approach was useful to reveal the context sensitive and interdependent nature of intercultural interactions. It led to new insights into powerful contextual affordances and constraints for intercultural interactions, generated within formal educational and informal social contexts.

While agency, interdependency of group members and broader life activities emerged as influential factors for intercultural interactions in formal educational activities, intercultural interactions in informal social encounters were best interpreted in relation to social conventions and personal interests. Two central tenets of activity theory, namely, division of labour and multi-voicedness (Engeström, 1993, 2001) were found highly relevant for interpreting intercultural interactions in formal group learning activities.

Activity objects and actions related to intercultural interactions were found to vary, contingent on the specific activity in which they were embedded, for example, a formal group learning project or an informal social outing, but variations could also be related to the characteristics of an activity, for example, its temporary nature, or its constricted, dysfunctional conditions.
These findings support Lave’s (1993) claim that activities cannot be understood in isolation from their social surroundings. Based on this study, Lave’s claim could be extended to include the complex network of multiple and interacting activity systems (family, peers, university, work) in which students participate.

The impact of the overlapping or embedded nature of social activities (Engeström et al., 1995) on individuals’ engagement in those activities, was revealed through evidence that participation in one activity could generate contextual affordances but also limitations for participation in other activities. For example, work commitments and family obligations as broad life activities, acted as contextual inhibitors for students’ full participation in academic group projects, which in turn limited the opportunities for intercultural interactions. Likewise, the emotional pressure for exclusive friendship exerted by culturally close peer groups discouraged individuals from seeking intercultural interactions outside the group.

Overall, this study provided some explanations as to why intercultural interactions did not emerge naturally, even in informal social settings. From an educational perspective, this suggests that universities with culturally diverse student populations should make a firm commitment to “openly value cultural diversity in policy and practice” (Leask, 2009, p. 219), and follow suit with strategies that induce intercultural exchange and learning within and outside the classroom. These would be best embedded within formal internationalized curricula (e.g., de Vita, 2007) but with increased benefits if combined with informal curricula (Leask, 2009).

While the interpretation of these findings is exploratory and should be considered cautiously, the range of phenomena that emerged from this study should be examined closely in future research. The extent to which these context-specific findings are generalizable to other social contexts needs to be explored. The role played by the close, culturally similar peer group in
inhibiting their own members’ engagement in intercultural exchange deserves special attention since this is a troubling, under-examined phenomenon in the literature.

To conclude, this research demonstrated the value of activity theory as a promising theoretical lens and analytical tool for understanding the complex, interdependent and context-sensitive nature of students’ intercultural experiences as it captures these phenomena in the complexities of their daily lives.

References


Culture in motivation research: A challenging and enriching contribution

REVIEW CHAPTER
Culture in Motivation Research: A Challenging and Enriching Contribution
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Glossary

Culture – In its broad, ethnographic sense, culture, or civilization, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by people as a members of society.

Emic/etic – An emic account of behavior is a description of behavior in terms that are meaningful (consciously or unconsciously) to the actor, whereas an etic account is a description of a behavior in terms that are familiar to the observer. Scientists interested in the local construction of meaning and local rules for behavior rely on emic accounts, while those interested in facilitating comparative research and making universal claims rely on etic accounts.

Motivation – Commonly defined as an internal state or condition and sometimes described as a desire or want that drives people’s behavior and gives it direction. Based on the expectancy-value theory, what motivates behavior is a function of the expectancies one has and the value of the goal toward which one is working.

Aim, Focus, and Structure

This article aims to capture the current zeitgeist of research on culture and motivation, embedded in its historical development. Key motivational constructs have been selected and reviewed to illustrate the diversity and richness of culture-based theorizing as well as the range of empirical studies that have examined motivation from a cultural perspective. The article also highlights the salient research trends that have emerged in the last decade and the significant contribution that culture has made to motivation research.

As a background to understanding the development of recent research on culture and motivation, the first section provides a brief overview of critical milestones in the development of culture research in the broader field of psychology. The following section examines five key motivational constructs that have attracted a significant amount of research from a cultural perspective. The choice of constructs and the grouping of studies are, to a large extent, arbitrary, the aim being to illustrate a range of unique theoretical and empirical contributions that a culture-based perspective has made to motivation research. Two examples of cultural psychology research have been added to show that emic research from non-Western settings can make a unique contribution by unveiling new dimensions of learning and motivation. The article concludes with a brief discussion on the shortcomings of research and future directions.

Background and Historical Development of Culture-Based Research

The modern epoch of cross-cultural psychology with a coherent research agenda began only in the mid- to late 1960s. Earlier, according to Adamopoulos and Lonner (2001), cultural studies were largely the domain of anthropologists. The main purpose of early cross-cultural psychology research was to test theories, initially developed and validated in Euro-American contexts, in a range of other cultural contexts so that they could claim universality. This culture-label research (typically using a country or an ethnic group as the independent variable) has revealed numerous cross-cultural differences in target variables. However, inherent to their research design, studies representing an essentialist conceptualization of culture could not explain the variations that were observed.

To address this issue, many cross-cultural psychologists have shown interest in identifying and measuring cultural variables that may account for cross-cultural differences. The most well-known cultural variables involve individualism/collectivism (Hofstede, 1980; Triandis, 1994), basic human values (Schwartz, 1994), and independent/interdependent constructions of the self (Markus and Kitayama, 1991). Methodological problems have also been addressed, for example, the psychometric equivalence of data from cross-cultural settings (Van de Vijver and Poortinga, 1982). Overall, however, and regardless of whether the research involves a culture label or adopts a culture-measured approach, this research is problematic according to cultural psychologists because there is an underlying assumption that culture is static and homogenous, and that it can be treated as an antecedent of psychological phenomena.

For cultural psychologists, differences across cultures are the product of unique cultural contexts, where culture
and mind can only be conceived as inextricably connected since they mutually constitute each other (Adamopoulos and Lonner, 2001). It is argued that cultures need to be treated as dynamic processes (Greenfield, 1997) or open systems (Kitayama, 2002) that spread across geographical borders, evolve over time, and are constantly in flux due to changing contextual characteristics (Hong and Chiu, 2001; Kagitcibasi, 1996; Kashima, 2001; Zusho and Pintrich, 2003). The dynamic, complex interface of culture, context, and social cognition is a relatively new trend in cultural and educational psychology research. Accordingly, mainstream motivation research has just begun to explore how the interplay of the cultural aspects of contexts and personal dimensions co-contribute to producing different motivational patterns.

Additionally, similar views to the position of cultural psychologists have been expressed from an indigenous psychology perspective. Although the main motive of the indigenous psychologists is to address the prevailing dominance of the Euro-American mainstream cross-cultural psychology research, their position is consistent with that of cultural psychologists. Their call for the development of theories from within, that is, those developed within non-Western contexts that are therefore more appropriate for such milieus (Sinha, 1998; Yang, 2000), is consistent with the view that cultural systems should be the unit of analysis (Kim and Berry, 1993) in psychological research.

Overall, the major shift in culture-based research from a static, homogenous, decontextualized conceptualization to a dynamic, complex, and contextualized perspective has emerged almost in parallel to recent developments within mainstream research on motivation and learning (Volet, 2004). In the latter, the shift is from studying psychological phenomena with an exclusive focus on the individual (cognitive) toward a person-in-context perspective (sociocognitive), taking account of the location of mental processes in social activities that are embedded in broader social, cultural, and historical contexts (situative, sociocultural perspective) (Pintrich, 2000; Turner and Meyer, 2000; Volet, 2001). In addition, this perspective (situative, sociocultural) stresses the significance of mutual, dynamic interactions between individuals and culturally constituted contexts for the emergence of cognitive, motivational, and learning orientations. Thus, both cultural psychology and the situative perspective highlight the emerging, complex, dynamic, and contextualized nature of culture and motivation.

Motivational Constructs Investigated from a Cultural Perspective

The search through conceptual and empirical material for this article revealed that motivation research from a cultural perspective is very diverse and spans across a range of theoretical perspectives and constructs. Here, we provide illustrations of the type of theorizing and empirical work that has emerged in recent years with the view to highlighting its richness and significance. As mentioned in the introduction, the selection of motivational constructs and the grouping of studies are, to some extent, arbitrary; therefore, this article does not represent any systematic mapping of the field.

Achievement Motivation, Its Relationship to Effort and Ability

In the 1960s and 1970s, extensive cross-cultural research related to achievement motivation (McClelland, 1961) was conducted in Asian contexts. The purpose was to investigate the roots of achievement motives to better understand the essential underlying psychological mechanisms of achieving societies. A number of empirical studies (e.g., McClelland, 1961, 1965) revealed that Asian samples scored lower on achievement motivation compared to American samples, which was conceptualized at the time as a relatively stable personality disposition learned through independence and mastery training. This type of research was highly criticized in the 1970s for being unable to provide insight into the specific cultural context in which achievement motivation was generated. Maehr (1974), for instance, proposed “a framework . . . that stresses the importance of contextual conditions in eliciting achievement motivation” (p. 887). Similarly, Salili et al. (1976) pointed out that motivational patterns could manifest differently across diverse cultural contexts due to varying sociocultural influences. In the 1990s, Yu and Yang (1994) also criticized McClelland’s work on the ground that this achievement motivation theory was based on Western middle-class values, which are not generalizable to an Asian setting. Similarly, Salili’s (1994) research using a repertory grid technique (based on Kelly’s 1955 personal construct theory) suggested that different cultures could share the same dimensions of achievement, but their conceptions of achievement, for example, the meaning attached to success, could vary.

This illustration shows how, in early research on achievement motivation, culture was viewed as the unique, contextual frame for the development of motivational patterns. These patterns, therefore, were assumed to reflect the values and beliefs of the specific sociocultural setting. Simply stated, the view that culture is context was used to explain why motivational orientations and processes have different manifestations across distinct cultures.

Recent work related to achievement motivation (Hutton et al., 2002a) has also endeavored to reveal causal relationships between culture and motivation; however, culture and context have been treated as distinct, and deliberate efforts have been made to interpret the
meaning of the findings in relation to the characteristics of the cultural context. The empirical work of Hufton et al., conducted with American, English, and Russian students, revealed ambiguous relations between the self-perception of academic competence and attribution of achievement to effort and ability. The former two groups appeared more likely to view effort as the cause of high achievement, although they significantly displayed lesser endeavor than their Russian counterparts, who, in contrast and despite working significantly harder, were more likely to ascribe high achievement to ability.

It is noteworthy that Hufton et al. (2002b) did not limit the interpretation of their findings in light of the prevailing culture alone. Context was treated separately from culture in terms of schooling and classroom practices, on the grounds that these are expected to shape and build the basis for the emergence of distinct motivation and learning patterns. The authors, moreover, highlighted the significance of not only understanding the meanings attached to the notions of effort, ability, and achievement, but, more importantly, also acknowledged that these may vary within and between cultures. To this effect, they combined their survey with an in-depth qualitative component. Their exploration of the meanings attached, by Russian students, to effort and ability revealed that although a strong emphasis was laid on effort, working hard or effort was considered to be the norm, leading the authors to conclude that "individual differences in ability may be a more salient and discriminating factor" (Hufton et al., 2002b, p. 282). However, based on their additional findings of the conceptions of ability as the result of effort in Russian students, the authors criticized any simplistic and dichotomous conceptualizations of effort/ability.

The value of combining cross-cultural surveys with qualitative studies has also been advocated by Bempechat and Drago-Severson (1999), who called for a qualitative shift in cross-cultural research on achievement motivation. They stressed the significance of exploring the context and culture-specific beliefs about learning, achievement, and motivation to elicit the underlying meanings that individuals attach to these constructs. In their view, subjective perspectives are critical to gaining a deeper and fuller understanding of why learning and motivation patterns are consistent or vary inter- and intraculturally.

The following section pursues the examination of the dichotomous conceptualizations of motivational constructs in a cultural perspective, this time in regard to the self-determination theory, and the constructs of extrinsic and intrinsic motivation.

**Self-Determination Theory, and the Constructs of Extrinsic and Intrinsic Motivation**

From a Western perspective, the bipolar construct of extrinsic and intrinsic motivation is traditionally conceived in terms of intrinsic motivation being more beneficial and efficient for learning as it serves as an antecedent for deep learning strategies (Watkins, 2000). This widely shared belief was recently contradicted by Ramburuth and McCormick's (2001) findings, which revealed evidence that the surface strategies were connected with intrinsic motivation for Asian students, whereas extrinsic motivation was linked to deep strategies for Australian students.

Other studies, such as Iyengar and Lepper's (1999), contributed to raising doubts about the Western-based conceptualization of intrinsic motivation rooted in the self-determination theory (Deci and Ryan, 1985, 2000). In short, the self-determination theory postulates that an individual's intrinsic motivation will be higher in situations where options of personal choice are given. Iyengar and Lepper's study found that while this assumption did hold true for their American participants, it failed to predict the motivational tendencies of their Asian sample. The latter group displayed higher intrinsic motivation when task choice was made by significant others, such as their mothers or a valued in-group member, than when they were given the opportunity to choose a task themselves. The authors interpreted their findings in light of Markus and Kitayama's (1991) theory of independent and interdependent self-construal. They argued that while free choice for people from independent societies corresponds to their need for autonomy and personal control, it might harm the need for relatedness of people coming from interdependent societies. In other words, it entails the risk that their personal choice may not be in line with the beliefs and values of important others, and therefore may cause conflict or jeopardize group belongingness.

In this regard, Katz and Assor (2007) argued that having a choice could be motivating when the options meet the choosers' needs for autonomy, competence, and relatedness. Of these, relatedness refers to congruence with the values of the cultures of the choosers, which, as discussed above, is of special importance for members of interdependent/collectivist societies. This assumption is supported by the research of Roth et al. (2006), which revealed that on the relative autonomy continuum theorized by the self-determination theory, conformity exists as an intermediate level between external regulation and introjection. The authors concluded that the need for autonomy might be less compatible with Eastern cultures that embrace collectivist values. They suggested future research to examine the relations between conformity, well-being, and performance in collectivist societies.

In light of these findings, which also explored the significance of culture as context in terms of pan-cultural dimensions and self-systems (independence/interdependence), it may be timely to reconsider the bipolar construct of extrinsic–intrinsic motivation. If choice does not play a critical role for people coming from more socially interdependent societies, the fundamental assumptions underlying...
this concept can no longer be viewed as appropriate to explain human motivation across cultural contexts. It seems rather, that while the pursuit of self-determination may enhance intrinsic motivation in more independent societies, pursuit of social conformity fulfills that same function in more interdependent societies. However, and as alluded to in the introduction, caution needs to be exercised when explaining differences in motivational tendencies exclusively in light of a global cultural dimension, as it has only limited potential to acknowledge the dynamic nature of motivation across contexts and situations within cultures.

This issue is addressed in the following section when discussing the impact of culturally specific self-beliefs on achievement and motivational orientation.

**Attribution Theory, Self-Beliefs about Achievement and Motivation Orientation**

In the Euro-American literature, there is a widely shared belief that having confidence in oneself and thinking positively essentially helps and enables people to be successful and to perform at their best. The validity of these beliefs was supported, for example, by Bandura’s (1982) research, which revealed that a positive sense of self-efficacy often results in enhanced achievement.

In recent years, however, a number of researchers active in cultural research have cast doubt on this perspective. They suggested that the positive impact of self-confidence might not sustain in cultural contexts other than the Euro-American one (e.g., Fiske et al., 1997; Heine and Lehmann, 1997). Their empirical work in East Asian settings, such as Japan, revealed that, in contrast to the aforementioned shared assumption, it was a person’s self-critical view that was positively associated with achievement and motivation.

These findings suggest that motivational beliefs may play out differently across contexts depending on culturally specific self-views. Again, this research treated culture (national culture) as one form of context and assumed it would provide specific opportunities, constraints, and affordances for the development of motivational orientations. For instance, research by Kitayama et al. (1997) and Heine et al. (2001) provided strong evidence that while the independent self-view (e.g., predominant in the United States) is positively related to self-enhancing motivational strategies, the interdependent self view (e.g., prevalent in Japan) is more likely to be associated with self-improving motivational approaches. Heine et al. found that their Japanese participants worked harder on a second task if they had failed to complete the first one successfully, which implies that they were strongly focusing on their weaknesses (self-criticism). In contrast, their American participants worked harder the second time if they previously succeeded in task completion, which suggests that they were motivated by their strengths (self-enhancement).

Notably, the authors’ interpretation of these findings was not exclusively based on cultural dimensions of self-construal. Some attention was also given to each group’s respective cultural–educational environment, in terms of school culture and university entrance qualification systems, on the grounds that these would have shaped people’s lay theories of the self. Dweck and colleagues (e.g., Chiu et al., 1997; Hong et al., 1999) have coined the terms entity theory and incremental self-theories. They argued that while the former refers to the cultural belief that the self is relatively fixed and stable, the latter views the self as adjustable, fluid, and improvable. These culturally based self-beliefs may help explain the different motivational strategies displayed by American and Japanese participants following failure. While the American participants attributed their failure to lack of ability, a fixed, inherited characteristic, the Japanese participants thought that task completion was just a matter of more effort.

Despite these striking differences, it is important to highlight that although diverging motivational strategies were adopted, both groups were striving toward the same goal, namely to do their best. To sum up, it suggests that humans may share similar goals, needs, and desires. However, while the strategies that people adopt in pursuit of these, and the ways in which these are constructed, may depend on cultural elements to some extent, the multiple contextual factors prevalent in specific contexts are also significant. These were only minimally taken into consideration in the research examined so far. The importance of culture and context as distinct constructs is discussed in the following sections on goal orientation as well as agency and self-efficacy.

**Goal Orientation, Social Diversity, and Educational Practices**

Culture-based research on goal orientation has revealed that the basic constructs of the goal theory show remarkably similar structures across cultural groups (e.g., McInerney, 2003; McInerney et al., 1997; Nelson et al., 2006). Based on that research, it would appear that goal orientation and achievement motivation may not be that dissimilar around the globe.

However, research conducted in the context of multicultural classrooms, for example, by Kaplan and Maehr (1999), showed strong evidence that while task goals were positively related to the sense of school belonging, perceived competence, and self-esteem in minority students, by contrast, ego goals correlated negatively. In this regard, Maehr and Yamaguchi (2001) argued that school cultures that stress and encourage task goals may play an important role in reducing negative and inhibiting aspects associated with social diversity. Most importantly, this strengthens the view that motivational orientations are
malleable, and thus may change in response to specific educational practices.

The respective significance of culture and multiple contextual variables on students' learning and motivational orientations has been investigated by, for example, Salili et al. (2001). The authors conducted research with three groups of students, namely Chinese in Hong Kong, European-Canadian, and Chinese-Canadian. The findings were interpreted in light of the sociocultural setting as well as the context of schooling practices (e.g., grading and assessment systems). The study revealed that Chinese-Canadian and European-Canadian students who participated in the same learning environment displayed different learning attitudes and goals. For example, Chinese-Canadian students spent more time studying, received higher marks, and indicated family-oriented goals more often than European-Canadian students. Importantly, observed differences in self-efficacy scores between Chinese-Canadian and Hong Kong Chinese students could not simply be explained by culture alone. Different schooling practices, such as assessment processes and success criteria, were found to play a vital role, with a significant impact on students' self-efficacy beliefs and motivational patterns. Hong Kong students doubted their self-efficacy because despite working very hard, they only received low marks. In contrast, the efforts made by Canadian students were reflected in their examination results.

The findings of this study by Salili et al. (2001) illustrate the importance of interpreting motivational orientations in light of the specific cultural milieu and the multiple contextual characteristics that afford and constrain particular learning and behavior patterns. Moreover, the study highlights that a contextualization of research has the potential to reveal stability and change in individual motivation patterns across situations and over time.

The final section addresses the situated nature of individuals’ agency and self-efficacy beliefs, and discusses how these evolve differently within and across cultures and contexts.

Agency and Self-Efficacy, Separating Culture and Context

In recent years, a number of researchers, for example, Hernandez and Iyengar (2001) and Kitayama and Uchido (2005), have suggested that cultural differences in motivation may be best explained in terms of distinct agentic modes. The idea is that people coming from cultures that stress independence and autonomy are more personally agentic and their behaviors attributed to dispositional characteristics, whereas people from cultures that emphasize interdependence are more collectively agentic and their behaviors attributed to situations or are even viewed as directed by groups. More specifically, it is argued that personal agents view the self as the source of agency and essentially display higher intrinsic motivation in situations that involve self-initiated and self-directed actions. In contrast, collective agents perceive agency as emerging from the collective and, in turn, exhibit higher intrinsic motivation for behaviors that are rooted in and directed toward the collective (Kitayama and Uchido, 2005; Markus and Kitayama, 2004).

In the same line of thought, three modes of agency are distinguished in the sociocultural theory: personal, proxy, and collective agency. While personal agency is exercised individually, proxy agency is in operation when individuals influence others to take actions for them. In collective agency, individuals act in accordance with each other to produce collectively desired outcomes (Bandura, 2002). However, Bandura made it explicit that it is of utmost importance to realize that although “the determinants and agentic blends of individual, proxy and collective agency vary cross-culturally . . . all these agentic modes need to be enlisted to make it through the day, regardless of the culture in which one happens to reside” (Bandura, 2002, pp. 269–270). Consequently, he also argued that cultural variations in the behaviors of individuals may be best explained in terms of the relative importance attributed to each type of agency in a particular cultural context, rather than the result of entirely bipolar individualist or collectivist modes of agency. Moreover, Bandura stated that regardless of which mode of agency is exhibited, one underlying mechanism is omnipresent, namely efficacy beliefs. The core belief that one has the power and the ability to achieve desired outcomes serves as a baseline for a range of factors that may guide the behaviors of individuals. In other words, cognitive, motivational, affective, and decisional processes are viewed as essentially shaped by an individual’s self-efficacy beliefs. However, again according to Bandura, although efficacy beliefs have generalized functional meanings, their emergence, structure, exhibition, and purpose vary across cultural contexts. Additionally, as mentioned above, not all efficacy beliefs are limited to an individual perspective. Collective efficacy beliefs refer to situations where group members act in accordance to a shared belief that a desired outcome can be achieved by joint actions. Again, however, although the focus shifts from the individual to the collective, the basic underlying functions and processes of efficacy beliefs are the same. Consequently, based on Bandura’s position, it can be argued that regardless of the cultural context, there is universal commonality in human agency and mechanisms of operations. It is the ways these mechanisms are put in practice and the shapes they adopt that can vary cross-culturally.

Furthermore, researchers such as Bandura (2002), Hernandez and Iyengar (2001), Hong and Chiu (2001), and Kashima (2001) have stressed the contextualized nature of human behavior. They view context as a combination of
a variety of contextual attributes and situational factors that can engender or inhibit human motivation, regardless of the prevalent cultural milieu. For instance, depending on whom a person is interacting with and what the interaction is about, intra-individual differences in behavioral and motivational patterns can emerge. This idea is supported by Freeman and Bordia's (2001) findings that depending on the reference group (e.g., peer, family, academic, and national), participants exhibited different levels of individualistic and collective orientations.

These findings therefore support the significance of situational and contextual factors on the development of behavioral and motivational orientation. Furthermore, they highlight the importance of taking intra-individual as well as within-culture variations into account. Thus, focusing on context and situation-specific characteristics as fundamental for the thoughts and actions of the individuals, rather than exclusively relying on the global construct of culture, essentially enhances the understanding of the dynamic nature of social behavior. In this regard, Volet's (1999) research provided strong support for the benefits of systematically separating culture and context, allowing for the examination of stability and change in the motivational patterns of Singaporean and Australian students in the same educational context and over time. The characteristics of the specific learning settings as well as students' subjective perceptions of these settings were assumed to afford and constrain particular learning and motivational patterns, regardless of the students' cultural backgrounds. Volet found that while the overall achievement motivation remained relatively stable in the group of Singaporean students, more contextualized aspects of their motivation, such as self-efficacy and goal orientation for particular learning activities, changed over time in the new academic setting with its unique configurations of contextual features. Thus, macro-(sociocultural background) and micro-(classroom and instructional practices) level contextual influences, as well as students' subjective perceptions of these, crucially shape the development of motivational orientations and processes that consequently become congruent with the particular cultural–educational context.

Kitayama and Uchido (2005) stated that motivation is universal in all cultures and the ways in which it is constructed depends on cultural values and characteristics. However, while traditional theories of human motivation have postulated personal agency and self-determination as the central drive of all human actions, a growing body of culture-based research suggests that these fundamental assumptions may not be as relevant among members of more interdependent cultures. As elaborated above, it seems that motivational variations may be best explained in light of prevailing sociocultural factors and the interplay of multiple contextual variables, rather than in terms of static, bipolar cultural dimensions that cannot account for the dynamic nature of culture and motivation, which constantly change over time and across situations.

In the following section, we briefly illustrate how indigenous psychology research can make a unique contribution to expanding and enriching mainstream theories of motivation through unveiling culturally specific conceptions of learning, motivation, and achievement.

**Cultural Research from Within**

Two Asian scholars, Li (2002) and Ho (1998), provide examples of cultural research from an indigenous perspective. Li’s (2002) research, situated in China and focused on indigenous, traditional conceptions of learning and achievement, proposed a new dimension of motivated learning that cross-cultural research had not captured. Her model of “heart and mind for wanting to learn” stresses that knowledge seeking and the cultivation of lifelong learning is of greater value for Chinese learners than achievement itself. The overall aim of Chinese learners, according to her, is to achieve breadth as well as depth of knowledge and, simultaneously, to personally and morally grow through the learning process. Furthermore, the meanings attributed to success/failure and effort/ability in her model remarkably differ from the commonly shared understanding of these notions in Western models. The difference, according to her, emerges as a result of the dialectical reasoning style characteristic of Chinese culture; thus, failure and success are both perceived as essential components of the learning experience. From this perspective, failure is not perceived negatively, but as a sign to work on and improve particular skills, which in turn will help to achieve success in the future. Consequently, Li’s Chinese model of learning stresses the impact of effort to achieve learning outcomes. Inmateness of ability is not neglected; however, it is also not viewed as a determinant factor because lack of ability can be compensated by substantial effort (Li, 2002). Interestingly, Li’s conception of effort/ability appears consistent with the findings by Hufton et al. (2002b) in a Russian educational context.

While Li recommends the accommodation of the Chinese conceptions of learning and achievement in existing frameworks for theory enhancement, she does not claim the universality of these dimensions. In contrast, Ho (1998) proposed methodological relationalism as a universally generalizable approach to consider human relationships as culturally defined and, thus, to interpret individual behavior more accurately. Ho grounds his idea of methodological relationalism and the significance of relational dimensions in Asian social psychology. According to Ho, the methodological relationalism approach is critical to capture the inherently social nature of human actions that are invariably embedded in relational contexts. Ho (1998) recommends person-in-relations and persons-in-relation as
useful, universal units of analysis to acknowledge the impact of relational contexts on the thinking and actions of individuals.

These two constructs, postulated by Ho, explain how cultural research from within can provide a unique insight into indigenous perspectives on learning and motivation. This insight is viewed as a crucial prerequisite for understanding and explaining cross-cultural variations because it unveils how participants themselves construct and value the phenomena under investigation.

**Research Shortcomings and Future Directions**

Focusing on the five key motivational constructs was useful for providing an illustrative picture of the challenging and enriching contribution of culture in motivation research. It highlighted how current theories of motivation, mainly developed and validated through Western lenses, are not always useful for explaining and predicting motivational orientations in cultural milieus different from those in which they originated. For example, the relatively simplistic, dichotomous conceptualizations of ability/effect, success/failure, and extrinsic/intrinsic motivation appear unable to adequately explain cultural variations across contexts, and therefore need to be reexamined and redefined. The moderating influence of culture on relationships between variables was revealed, and emic positions were found useful to highlight how variables can differ across cultures.

The research on culture and motivation is characterized by a number of methodological shortcomings. These involve a dominance of single-context studies that use cross-sectional designs and rely on questionnaire data. Such studies have limited potential to capture the complexity and interacting nature of personal, cultural, and situational influences on emerging motivational patterns. In contrast, studies that involve longitudinal designs and that investigate motivation in multiple contexts have greater potential to reveal stability and change in motivational orientations over time, within and across contexts (e.g., Volet, 1999). This is important because it is only if cultural variations are found across diverse contexts that we can be confident that these represent a real main effect. Acknowledging the moderating influences of culture on the relationships between variables as well as the dynamic, situated nature of both culture and motivation require research designs and methodologies that reflect these more complex conceptualizations. Such approaches also have the potential to unveil intra-individual as well as within-culture differences (e.g., Bandura, 2002).

The current undue reliance on questionnaire data will also need to be reexamined and complemented by other approaches. Van de Vijver and Poortinga (2002) have argued that multiple approaches are needed to progress with the daunting task of studying the relationship of development and cultural context. They recommend combining qualitative and quantitative research methodologies as well as the use of a variety of models, ranging from simple main effects to dynamic interaction models. A similar approach would benefit research on culture and motivation. There is little doubt that questionnaire data are not well suited to the task of capturing the significance of culturally constituted contexts for individuals' processes of understanding and meaning making of the phenomena under investigation (e.g., Elliott and Bempechat, 2002). Two possible ways of empirically examining and improving the validity of survey methodology in cross-cultural contexts are Rasch measurement (e.g., Andrich, 1978) and cognitive pretesting (Karabenick et al., 2007). While the former allows for the measurement of qualitative differences in the responses of individuals to psychometric items, the latter empirically examines the extent to which respondent's interpretations of items are consistent with the meaning that a particular construct is intended to capture.

To conclude, both sociocognitive and situated theoretical perspectives on motivation have stressed that achievement, self-efficacy, and agency beliefs (to name just a few) are socially constructed. Social constructions include cultural constructions, and both call for qualitative, ethnographic, and emic approaches to complement traditional survey methodologies. As discussed in this article, culture has already made a challenging and enriching contribution to motivation research. Further enhancement in our understanding of the respective contribution of culture and contextual dimensions on motivation requires continuous reexamination of theoretical assumptions within and across multiple cultural contexts, and a variety of research approaches that reflect the complex and dynamic nature of culture and motivation.

**See also:** Achievement Goal Theory: Definitions, Correlates, and Unresolved Questions; Intrinsic and Extrinsic Motivation; Sociocultural Issues in Motivation.

**Bibliography**


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**Further Reading**


