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Chapter 6

Learning across cultures: appropriateness of knowledge transfer

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Abstract

This chapter focuses on the issue of transfer of cognitions, motivations, and dispositions related to learning across different cultural-educational contexts. Research with learners from Confucian Heritage Culture, mainly from Singapore and Hong Kong, studying in their home country and as international students in Australia is used to establish the usefulness of the concept of socio-cultural appropriateness to understand transfer. The examples discussed reveal how some aspects of students learning travel extremely well and are congruent with the characteristics of learning valued in the host context, while others reflect ambivalent, difficult, or inappropriate transfer. The significance of mutual individual-context dynamic interactions, subjective nature of appropriateness, and emotional dimensions involved in transfer of learning is highlighted. Implications for educational practice in an international, multicultural perspective are outlined.

The literature on transfer of learning is replete with studies investigating the most effective ways to help learners transfer their knowledge and skills flexibly and appropriately across tasks and contexts. Overall, there is a general agreement that successful transfer of learning involves more than a cognitive match between the learner's mental baggage brought to the situation and the requirements of the transfer task or situation. The importance of the person-context mutual interactions, or the match between the individuals' effectivities and the affordances provided by the environment has been highlighted (Snow, 1994; Greeno, 1997). Recent transfer research has also stressed that attitudes (Resnick, 1987), dispositions (Bereiter, 1995), mindfulness (Salomon & Globerson, 1987), and motivation (McKeachie, 1987) are critical components of effective transfer alongside cognitive and metacognitive aspects. In addition

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to person characteristics, Boekaerts' (1997) research suggests that situation-specific cognitive, motivational and emotional appraisals of tasks and contexts also have a significant influence on learning and transfer.

Without necessarily downplaying the importance of learners' effectivities and situation-specific appraisals, recent situated cognition research (Brown, Collins & Duguid, 1989; Resnick, 1987; Rogoff, 1990; Greeno, 1997,1998) has emphasized the critical impact of affordances that learning contexts and activities provide to participants (Gruber, Law, Mandl & Renkl, 1995; Gibson, 1979/1986). It has been claimed that regardless of whether the focus is theory development, applied research, or improvement of educational practice, the unit of analysis must be the person-in-context or the whole activity setting. Although some situationists (e.g., Lave, 1988) have argued that transfer of knowledge may not exist since knowledge cannot be decontextualized, most theorists recognize that transfer of learning can be socially mediated and that guided forms of learning have potential for enhancing the likelihood of transfer across tasks and contexts.

This chapter examines the effectivities–affordances interface in individuals' transfer of cognitions, motivations, and dispositions related to learning across broad cultural-educational contexts. Research with learners from Confucian Heritage Culture, mainly from Singapore and Hong Kong, studying in their home country and as international students in Australia is used to establish the usefulness of the concept of socio-cultural appropriateness to understand transfer.

1. Transfer of learning across broad real-life learning settings

For many educators, the nature, degree, and appropriateness of transfer of learning across real-life learning settings is related to the learners' cognitive, motivational, and emotional capacity to adapt their processes of learning to the characteristics of the new context. Each specific learning context appears to have its own unique culture of learning, with some explicit but also many tacit rules and expectations which provide subjective criteria for evaluating what are appropriate learning behaviors in that context.

According to Marini and Genereux (1995), an instructional context refers to "the physical and social setting, including the instruction and support provided by the teacher, the behavior of other students, and the norms and expectations inherent in the setting" (p. 2). Their acknowledgement of social elements (other students) and cultural dimensions (norms and expectations) which form an integral part of any activity setting is to be noted. Peers are part of each other's social context (Voss & Valsiner, 1996). It is well established in the literature on cooperative and collaborative learning (Johnson, Maruyama, Johnson, Nelson & Skon, 1981; Dillenbourg, Baker, Blaye & O'Malley, 1995) and socialization in the workplace (Levine & Moreland, 1991) that individuals play a critical role in each other's learning. Cultural dimensions, i.e., the sets of beliefs, value systems, assumptions, and social expectations prevailing in a particular activity setting that are understood and shared by the individuals participating, are critical in determining what are appropriate forms of

learning as well as in realizing the learning potential of individuals (Hatano, 1990). Although assumptions and expectations are often tacit, their specific and unique characteristics become salient when newcomers are joining the activity and are trying to transfer their knowledge and skills acquired in a different context within the new setting.

The aspects of transfer across learning contexts that have received less attention in the literature are those dealing with motivational and emotional dimensions. Even within the situative perspectives on transfer theory, there seems to be an implicit assumption that the process of enculturation in a new community of practice is mainly a cognitive and social affair. That is, once a person understands the physical, cognitive, and social functionalities of a community, positive feelings and emotional adjustments will follow suit. Yet, understanding the socio-cultural appropriateness of transfer across real-life learning contexts cannot be achieved without considering individuals' affective appraisals of the transfer situation. As argued by Pea (1987), the characteristics of a transfer situation are subjectively rather than objectively defined. Subjectivity has to be conceptualized in the holistic sense of involving individuals' cognitions, motivations, feelings and emotions.

2. Transfer across different cultural-educational contexts: the case of international students in an Australian university

Thousands of undergraduate international students from Confucian Heritage Culture (CHC) move from the familiar, emotionally-safe cultural-educational context of high school (college) education in Singapore, Malaysia or Hong Kong to the less familiar cultural-educational setting of an Australian university. These students provide a unique opportunity to explore the issue of socio-cultural appropriateness of transfer of learning across formal learning contexts.

In their home country, students' cognitions, motivations, and behaviors are expected to be congruent with the affordances of the instructional context. Congruence, defined as the product of mutual dynamic interactions between individuals' effectivities and the affordances of the environment, is observed in students' home country because the qualities of the instructional context support their participation, and reciprocally students are attuned to the affordances of the environment. Consequently, both parties share the standards of what constitute appropriate cognitions, motivations, and behaviors.

The challenge begins when CHC students move to the Australian university context.[1] Although studying in a foreign country is challenging for most students, the presence of large groups of students with a cultural-educational background different from the typical local students is also challenging for university staff. Much of the

[1] The focus of this chapter is on CHC students' transfer of learning but comparative studies have shown that local Australian students also experience a change in culture of learning from high school to university.

early Australian literature related to international [overseas] students' learning involved studies conducted by Western staff in the academic support services of the host universities (e.g., Barker, Child, Gallois, Jones & Callan, 1991; Burke, 1986; Ballard & Clanchy, 1984; Samuelowicz, 1987). These studies reflect academic staff's tacit assumptions that the learning processes and activities valued in the host Western environment represent universal norms and that any deviations from it are cognitive, behavioral or social deficits. The negative picture of Asian learners in Australian universities contrasts sharply with evidence from university statistics, that when English language proficiency is not an issue, Asian undergraduate students tend to perform better in their academic study than local students.

More recently, theoretically grounded studies of Chinese students in Hong Kong (Kember & Gow, 1990; Salili, 1995; Watkins & Biggs, 1996) and Singaporean students studying in Australia (Volet & Renshaw, 1996) have questioned some of the stereotyped and often inaccurate views of CHC students' learning.[2] By grounding the research in constructivist, self-regulation theory of learning, and focusing on issues of adaptability and continuity in student learning from the home to the host country, the view of CHC students as reproductive, surface learners who lack the experience and skills for interacting in group discussions has been challenged (Volet & Renshaw, 1996). This latter research has not only highlighted the significance of interactive and dynamic processes, but has also drawn attention to the need for understanding and interpreting students' cognitions and behaviors in their dynamic interactions with the socio-cultural context in which they are embedded.

In the case of learning across cultures, the critical question is who decides on appropriateness of transfer and the criteria to be used. It is argued that to understand this type of situation and to develop a less ethnocentric and more educationally useful perspective of international students' learning, the focus should be on staff and students' subjective perceptions of learning in the home and the host country. Appropriateness, from this angle, is subjective and context dependent. It does not implicitly take the socio-cultural educational values of the host environment as the norm, nor does it refer to context-independent principles of good learning. Fig. 1 presents an overview of the issue of appropriateness of transfer of learning across different cultural-educational learning contexts.

The congruence between students' motivations, cognitions, and behaviors, on the one hand, and the affordances of the instructional setting in the home cultural-educational context, on the other, is illustrated on the left-hand side of the figure. The two-way arrow indicates that congruence is the product of mutual dynamic interactions between individuals' effectivities and the affordances of the environment.

[2] All examples of CHC students' learning in this article are from Singaporean or Hong Kong students and thus may not be generalizable to students from other CHC countries. In addition, although many common features were noted between Singaporean and Hong Kong students' learning back home and in Australia, the impact of differences across the two contexts should not be underestimated, in particular, the fact that Singaporean students are taught in English throughout their schooling, which is not the case in Hong Kong.

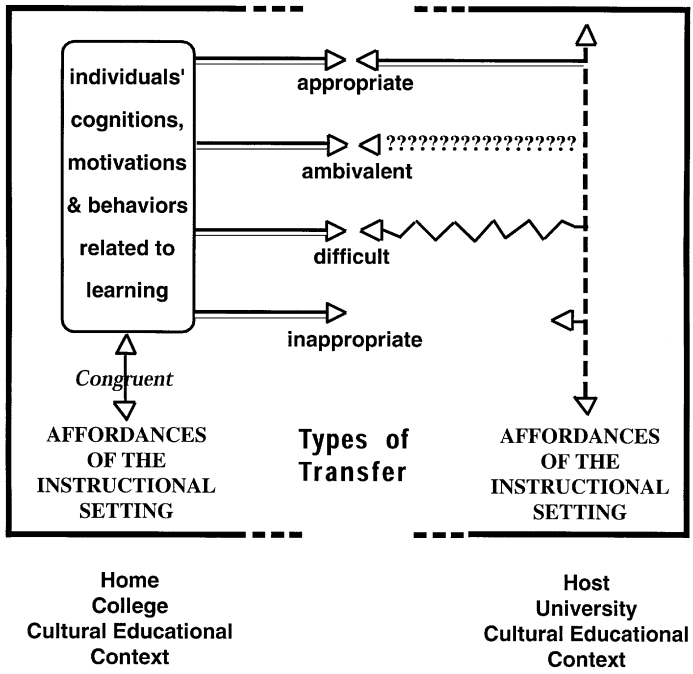

Fig. 1. International students from Confucian Heritage Culture at University in Australia: Sociocultural appropriateness of transfer of learning from home to host cultural-educational context.

The right-hand part of the figure highlights four different types of transfer of learning from the home cultural-educational context at college to the host university context. These four types are appropriate, ambivalent, difficult and inappropriate.

In what follows, each of these four different types of transfer of learning is discussed and illustrated with examples. These examples refer to aspects of learning commonly discussed in the literature. Only aspects of individual student's learning considered well attuned to the affordances of the home cultural-educational setting have been selected. Each aspect is examined for its perceived socio-cultural appropriateness of transfer to the Australian university setting.

Table 1 presents the various aspects of learning organized around the four types of transfer. **Appropriate transfer** refers to situations where it is generally agreed that the aspects of learning transferred travel well and are congruent with the characteristics of learning valued in the host cultural-educational setting. All the *motivational aspects of learning* fall into this category. Regardless of the conceptual framework or research methodology, and regardless of whether they study at home or abroad, there is converging evidence in the literature that, as a group, CHC students place a high value on academic achievement (Watkins & Biggs, 1996; Salili, 1995,1996). Lee (1996) argued that the positive attitudes towards education and learning observed in East Asian countries relates to both personal development (human perfectibility is believed to be achievable by everyone) and societal development (upward social mobility is

Table 1
Examples of perceived appropriate, ambivalent, difficult, and inappropriate transfer

Appropriate transfer	High achievement motivation
	Attribution of failure to lack of effort
	Deep approach to learning
	Informal peer support groups
Ambivalent transfer	Diligence at cue-seeking
	Conformity to task requirements
	Memorizing study materials
Difficult transfer	Expectations regarding learning and instruction
	Seeking help from teachers
	Low participation in tutorial discussions
Inappropriate transfer	Reporting verbatim
	Copying down relevant extracts

considered achievable by all). Recent studies also revealed that CHC students score higher than Western students on measures of deep motives for learning (Volet, Renshaw & Tietzel, 1994), task value, intrinsic as well as self, social and economic aspects of extrinsic goal orientation (Volet, in press). Students also tend to attribute their learning difficulties to lack of effort, a controllable factor associated to persistence in learning (Salili, 1996). Since similar results have been found in cross-country studies (Biggs, 1991), it can be claimed that CHC students' high level of motivation transfers well to the Australian educational environment.

Many Australian academics reduce CHC students' achievements to high levels of motivation and extremely hard work, but additional evidence shows that these students' *deep approach to learning* in the home (Biggs, 1991, 1992 Kember & Gow, 1990; Watkins, Regmi & Astilla, 1991) as well as in the host educational contexts (Volet & Renshaw, 1995) plays a critical role in the learning equation. The relationships found between achieving and deep strategies for Hong Kong students at home (Biggs, 1991), as well as for Singaporean students abroad (Volet et al., 1994), suggest that CHC students' drive for academic achievement is accompanied by a search for understanding the content. Since the desirable deep-achieving combination (Biggs, 1996) is assumed to represent a universal characteristic of good learning, it is not surprising to find it well suited to the new learning environment.

Another aspect of learning that travels well is the importance given by CHC students to social aspects of learning, which are reflected in the widespread development of *informal peer support groups,* or informal study groups. Evidence that these spontaneous collaborative learning practices also exist in students' home country was provided by Tang (1996, Hong Kong) and by Volet and Kee's (1993, Singapore) research. Tang documented the nature of collaborative activities taking place in informal study groups and found positive effects of students' participation in these activities in the quality of their assignments. The emergence within the Australian

university context, of similar types of informal study groups by CHC students, may represent an instance of what Bereiter (1995) calls "transfer of situations." Since informal support groups had worked well for them in their home context, CHC students deliberately re-created similar support groups in the host country. Renshaw's (1999) research on the nature and function of informal study groups at university in Australia revealed the positive impact of such practices on students' academic and emotional adjustment in the new cultural-educational context. The re-creation in the host situation, of learning settings which provide at the same time academic and emotional support (Volet & Ang, 1998), has not been given much attention in the literature.

The value of interdependent forms of learning among CHC students is quite enduring as reflected in Volet's (1998) findings that after years in Australia, Australian students of Chinese ethnic Singaporean and Malay backgrounds had maintained in the host country a strong predisposition for interdependent forms of learning. These Asian Australians displayed a profile remarkably similar to that of CHC international students from the same country of origin on measures of interdependence and achievement motivation. In contrast, the more contextualized aspects of their academic study — i.e. specific skills and strategies — had become more like those of the Australian students.

Ambivalent transfer refers to situations where there may not be a general consensus as to whether transfer of learning is appropriate or not. These situations are created by participants' subjective perceptions and divisions of opinion about what constitutes good learning. A number of aspects of study are in this category, ranging from students' high responsiveness to instruction, diligence at cue seeking, conformity to task requirements, and memorization of study materials.

Evidence of CHC students' *diligence at cue-seeking* in order to *conform to task requirements* has been found in research with Hong Kong (Tang & Biggs, 1996) as well Singaporean students (Volet & Kee, 1993). That research has revealed how assessment-oriented high school systems in both countries — with a dominance on testing for factual answers — have created students who are diligent learners and street-wise when it comes to test-taking. Since academic success is highly valued in CHC societies and depends on passing numerous tests and examinations, students have developed a high sensitivity to task requirements. In response to internalized social pressures, they have learned to deliberately look for cues for each specific academic task and to adjust their strategies accordingly. Tang and Biggs (1996) stated that after years of repeated practice of test taking throughout their schooling, Hong Kong students have become excellent in identifying assessment demands. Although similar behaviors were reported within the Singaporean context (Volet & Kee, 1993), evidence of differences also emerged across disciplines and individual teachers, raising caution about generalization even within the same CHC country.

When transferred to the Australian context, CHC students' *diligence at cue-seeking* in order to *conform to task requirements* takes an ambivalent status. From the point of view of students, cue-seeking strategies are highly appropriate candidates for transfer as they represent survival skills to find out about learning requirements in a new unfamiliar environment. From academic staff point of view, however, deliberate

cue-seeking behaviors are often misunderstood and treated in a negative way. Instead of interpreting these behaviors within the high school assessment-oriented context that nurtured their development, many academic staff has developed the belief that CHC students behave in this way because they are *only* interested in their performance and grades. Although staff perceptions that students are after any hints that may help them prepare for tests may not be inaccurate (which would be in line with their high achievement orientation), the belief that students are interested in performing well *at the expense of* understanding the materials and learning for the sake of learning is not supported by any serious empirical evidence.

On the one hand, diligence in learning and responsiveness to instruction can be conceived as highly positive, in the sense that it characterizes willing, educable learners (Lee, 1996). Many academic staff in Australia do indeed value the diligence and educability of their CHC students. But others argue that such behaviors reflect a dependency in learning. They claim that CHC students bring with them a preference to be spoon fed (Pearson & Beasley, 1996) rather than a disposition to exercise self-direction and independence in learning, which they see as better suited to an university environment. Not only has the issue of CHC students' preference for spoon feeding been found totally erroneous (McKay & Kember, 1997), but whether instructional and assessment practices in the host country encourage independent forms of learning is often unclear. As long as CHC students perform as well if not better than their Western counterparts, and unless diligence in learning and conformity to task requirements can be excluded from contributing to successful achievement in undergraduate study, its transfer from the home to the host cultural-educational context will remain an ambivalent case of transfer.

Another case of ambivalent transfer involves *memorizing study materials.* There is no doubt that memorization strategies and repetitive forms of learning are widely used among CHC students in their home countries, but these should not be confounded with surface learning (Biggs, 1996). In the Hong Kong system tests and examinations dominate; they are viewed as creating a "powerful backwash effect" on teaching and learning (Tang & Biggs, 1996). Similarly in the Singaporean context, the use of memorization strategies is clearly linked to examinations. What is involved in memorization, however, needs attention since it has been misunderstood and this misunderstanding is responsible for its ambivalent transfer to the Australian university context.

The confusion is caused by the existence of two forms of memorization: (1) mechanical memorization or rote learning of unprocessed information and (2) memorization with understanding (Marton, Dall'Alba & Tse, 1996). In current Western views, memorization is typically associated with the mechanical approach and seldom considered as a strategy aimed at enhancing understanding. A student observed memorizing study materials is often suspect of surface learning (Biggs, 1991) and of trying to get away from understanding. In contrast, in the Confucian tradition, memorizing is conceived as a crucial part of understanding and should not be equated with rote learning (Lee, 1996). According to Lee, memorizing typically precedes understanding, and means becoming familiar with the text in order to achieve a deeper understanding. Another common use of memorizing strategies is to rehearse

information that is already understood in order to ensure accuracy to pass examinations. This strategy is widely used by Asian and Western students alike to prepare for examinations, where information has to be recalled under constraints.

When they observe CHC students' common use of memorization strategies, many Western academics conclude, based on their own conceptualization of memorization, that students are simply rote learning (Biggs & Watkins, 1996). Their conclusions match their observations of overcrowded classrooms and expository teaching style typically considered as inappropriate for good learning from a Western perspective. But at the same time, it does not match concurrent findings that these students outperform Western students at home, in international comparative studies, as well as abroad as international students. Biggs (1996,1997) has addressed the issue of the paradox of the Asian learner by clarifying several Western misinterpretations of CHC learners. The results of studies conducted in Hong Kong (Biggs, 1991, 1992; Kember & Gow, 1990; Watkins et al., 1991; Tang & Biggs, 1996) and Australia (Volet & Renshaw, 1995; Volet et al., 1994) indicate that CHC students' approach to learning does not involve rote learning. Instead, it tends to be more deep-oriented than that of Western students.

Consequently, the ambivalent transfer of memorization strategies seems to be a misunderstanding. Western academics who view CHC students' memorization strategies as inappropriate in the Australian university context may not realize that these students are either using memorization as a way to understand or they are using memorization strategies to consolidate material which is already understood for examination purposes. In either case, the intention is not rote learning and the strategy should, therefore, end up in the "appropriate transfer" category. Tang and Biggs' (1996) observation that Hong Kong students are excellent at playing the assessment game while retaining their integrity as deep learners supports this view.

Difficult transfer refers to aspects of learning well attuned to the affordances of the home cultural-educational context, but in need of re-assessment in the new learning environment. This category includes cases where all interested parties would agree that transfer is difficult. Students' *expectations regarding learning and instruction*, *seeking help from teachers during class,* and *low participation in tutorial discussions are* categorized as involving difficult transfer.

One of the essential conditions of effective instruction and learning is congruence between teachers and students' *expectations* of each other's roles in the teaching/learning process. Although all first year undergraduate students need to re-assess their expectations regarding learning and instruction in the university context, a double adjustment is expected from CHC students who not only move from high school to university, but also from a familiar to an unfamiliar cultural-educational environment. Several studies provide evidence of differences between CHC students and Western teachers' perceptions of their respective roles.

Caiger, Davies, Leigh, Orton and Rice (1996), for example, argue that in Asian countries, a good teacher is generally viewed as one who knows a great deal about the content and is able to organize it systematically and clearly for students to learn. Teachers have a responsibility to assist students in understanding the material so that they can pass their tests and external examinations. Teachers are also expected to

encourage the weaker students through exhortation, patience, and kindness. In turn, according to the authors, students have a responsibility to be diligent learners who preview what is to be learnt before class, learn as much as they can from their teachers during class, and then review the material after class in private or with their peers.

At that general level, the overall picture does not seem much different from what can be expected in a Western educational context, although teachers are generally perceived as having a greater responsibility in their students' academic success in Asian countries than in Western countries. The "backwash effect" (Tang & Biggs, 1996) created by examination-dominated systems on students' approaches to study is noticeable in both Hong Kong and Singaporean learning contexts. Not surprisingly, students' perceptions of good high school teachers in Hong Kong (Volet & Pears, 1994) and Singapore (Volet & Kee, 1993) are that they must provide students with good notes and model answers for examination preparation. The Hong Kong students also declared that good teachers needed to teach students "how to remember" things for their examinations. They thought that good students were expected to pay attention in class, spend a lot of time memorizing and studying for tests and exams, and understand what they were studying. Singaporean students' accounts reflected similar views, although many of them also valued the importance placed by some of their high school teachers on students' development of skills to take personal notes, research materials in the library, give their own opinion, and develop arguments in their essays.

As revealed in a number of studies (Renshaw, 1999; Volet & Kee, 1993; Volet & Pears, 1994), most CHC students did anticipate on their arrival in Australia that what was expected of a good student at high school "back home" was likely to be different in the Australian university context. Students were prepared for change and their expectations about study at university in Australia were found to be quite accurate. Yet, some instructional practices that students had experienced at college and believed to represent universals of good teaching were found not to travel well to the Australian university context. One such example is students' expectation of greater availability of teachers outside classes.

CHC students' common practice of seeking help from teachers *outside* rather than *during* the formal academic setting of tutorials (Renshaw & Volet, 1995) has been reported as problematic in the Australian university context. Most academic staff members have little knowledge of classroom dynamics in CHC countries and do not realize this form of help-seeking was quite common in students' home country. Stevenson and Stigler (1992) reported that in Japan and China, for example, teaching loads are relatively light in anticipation of teachers providing "after class" support to their students. Although such provisions may not necessarily be in place in Hong Kong or Singapore, the learning value of seeking teachers' help after class was also mentioned by the Hong Kong students interviewed by Volet and Pears (1995). The students explained that asking questions after class forced them to think the problem through before they approached their teacher and, thus, eventually helped them understand better.

In a similar vein, the Singaporean students interviewed by Volet and Kee (1993) explained that at college it was expected that students who did not understand

something would not waste everybody's time and be a burden to the group by raising individual questions during class unless they were invited to. They would try to find out the answer after class, first from their friends, and if unsuccessful, from the teacher. This practice, however, needs to be interpreted in relation to special relationships and bonding between students and their teachers in the Singaporean high school and college context (Tan-Quigley, personal communication).

Not surprisingly, many CHC students reported that their tutors at the university in Australia were not sufficiently available for individual or small group consultation (Volet & Kee, 1993). Biggs (1996) argued that the number of Chinese students seeking one-to-one interaction with their teachers at the end of classes is certainly higher than is the case with Western students. Consequently, what the academic staff members in Australia perceive as inappropriate behavior (since tutorials are designed, at least in theory, to be the forum for asking individual questions) can be perceived totally differently by some students. The extent to which the issue of appropriate time and place for obtaining individual help is treated by students as a simple convention (in contrast to an internalized part of their belief system about effective learning) may determine how long students will keep searching for elusive tutors for individual help after class in the host context.

Related to the issue of seeking help from teachers is CHC students' general *low participation in tutorial discussions*. Even students themselves agree that Asian students tend to be more reserved than Australian students when it comes to participation in group discussion (Volet & Kee, 1993). One study of actual tutorial participation of Australian and Singaporean students did not reveal significant differences in the overall levels of participation of the two groups, but there were extreme variations within the group of local students (Renshaw & Volet, 1995).

Observations in CHC students' home countries (Biggs, 1996; Stevenson & Stigler, 1992) are in line with students' own accounts of practices back home (Volet & Kee, 1993; Volet & Pears, 1994). Participation in the type of conversational-style discussions found in Australian tutorials are not frequent in high schools or colleges — although some degree of diversity was noted in Singaporean students' accounts (Volet & Kee, 1993). Overall, Singaporean students' accounts revealed that while general class discussions were occasionally organized and participation expected (for example in their English A-level subject) it was seldom the case in other subjects. Furthermore, participation was never assessed. Consequently, and according to students, shy or unwilling individuals could easily avoid participating without being penalized. A similar picture has emerged in the Hong Kong context. All the Hong Kong students interviewed by Volet and Pears (1995) declared that their teachers in Hong Kong did not encourage participation and generally did all the talking.

Although the large majority of CHC students expected changes in mode of class participation, in practice, these changes can be quite dramatic. Australian students' habits in tutorials, of interrupting someone who is talking to make a point or asking the "simplest questions that you would just keep quiet and try to find out from your friends later" (Volet & Kee, 1993) were found astonishing by many CHC students. Such behaviors seem to contradict their fundamental beliefs about appropriate class

behaviors. The issue of participation is exacerbated when students speak English as a second language or when tutors are not good group facilitators. While academic staff members tend to blame students for being too shy to speak up, students argue that the problem is often with tutorial organization and management. According to students, factors such as being the minority in the class, being faced by loud vocal students who dominate the scene, tutors not assigning questions to students, or giving up on the less confident students too quickly are not conducive to increased participation in group discussions.

Paradoxically, Volet and Renshaw's (1995) research has shown that CHC students value study settings involving interactions with academic staff — and in particular tutorials — more so than local students. These findings suggest that although transfer seems difficult, students should be prepared to develop the skills and confidence to adjust to the overseas ecology. There is little research evidence that CHC students prefer a teacher-centered style of instruction. To the contrary, McKay and Kember (1997) found that Hong Kong students taught with a student-centered approach, involving case studies, role playing, and student led seminars preferred that style of instruction. Consequently, difficult transfer regarding expectations of learning and teaching, help-seeking practices, and participation in tutorial group discussions appear to be linked to a large extent to the specific characteristics of the host instructional context.

Inappropriate transfer refers to aspects of learning which may have been acceptable or simply not penalized in students' home cultural-educational environment and which are considered as unacceptable in the Australian university context. Examples of such strategies are *reporting verbatim* and *copying relevant extracts* in an assignment without acknowledging the source.

A common assumption in Australian universities is that when students report information verbatim in their tests, it means that they had simply learned the information by rote. In the view of teachers, verbatim recall makes it impossible to assess students' understanding of the study material. For the same reason, the practice of copying word for word whole extracts from lecture notes, a textbook, or other resources in an assignment is strongly condemned. Students are accused of plagiarizing and heavily penalized.

Interview data with Singaporean students (Volet & Kee, 1993) revealed ambivalent messages coming from teacher's back home, which students themselves had noticed. On the one hand, they thought they were not expected to report verbatim. On the other hand, there was an "underlying thing that maybe [they] should" (p. 22). Some students argued that concepts, facts, and definitions would have to be verbatim, since "you can't change them, you have to know them" (p. 22). However, students were unanimous in their view that reporting verbatim was directly linked to examinations.

The situation appears similar in the Hong Kong high school context where, according to Tang and Biggs (1996), the strongly assessment-oriented system does not discourage the practice of rote learning model answers. Yet, when the Hong Kong students interviewed by Gow and Kember (1990) admitted reporting verbatim without understanding in order to pass their tests, they argued that it was because the

subject was badly taught and there was no time to think. They did not like it and knew that employers did not like it either. However, given the circumstances they thought they had no other choice.

The difficulty of studying and writing in a second language, which is the case for most Hong Kong students, exacerbates the problem. Until students have built up sufficient automaticity in the lower-level language skills (Kirby, Woodhouse & Ma, 1996) to be able to express their understanding in their own words in the language of instruction, they may find it difficult to avoid reporting some verbatim in order to display their newly acquired knowledge. The two cases of inappropriate transfer discussed here, therefore, appear essentially due to culturally bound conventions about learning rather than to cultural differences in expectations of what constitutes good learning.

3. Transfer of learning across real-life learning environments: a case of socio-cultural appropriateness

Transfer of learning across real-life learning contexts is characterized by mutual dynamic interactions between individuals' effectivities and the affordances of the context. The subjective nature of the concept of socio-cultural appropriateness (i.e., multi-dimensionality, including emotional aspects in addition to cognitive and social aspects) and the heterogeneous and dynamic nature of what is referred to by the terms "learners" and "contexts" add to the complexity.

Instances of ambivalent, difficult, and inappropriate transfer were observed in the move to the host country because of mismatches between CHC students' mental baggage and the affordances of the environment. The cases of ambivalent transfer are characterized by the fact that each party was using different criteria to judge socio-cultural appropriateness of learning. Mismatches are expected to occur with regard to individual differences but the lack of congruence is more salient when a large group of individuals who have been acculturated with different preferred forms of participation enter a new learning setting.

The concept of socio-cultural appropriateness is useful in order to understand CHC students' transfer of learning across cultural-educational contexts. It highlights the significance of variations in value systems about education, learning, and instruction across cultural-educational contexts, and in turn expectations of what are appropriate individuals' cognitions, motivations, and learning behaviors in that context. Evidence of cross-context, as well as within-context differences in expectations supports Pea's (1987) claim that socio-cultural appropriateness of transfer is subjectively rather than objectively defined. The cases of ambivalent transfer highlight the degree of subjectivity involved in determining what are acceptable cognitions and behaviors in a particular environment.

The concept of socio-cultural appropriateness also appears to be useful in highlighting the importance of emotional dimensions in transfer. For example, students' accounts of difficulties in participating in tutorial discussions, seeking help from teachers, or learning about new conventions in academic writing revealed emotional

reactions and frustrations in trying to adjust to new expectations. Reciprocally, students' re-creation in the host setting of emotionally supportive informal peer support networks reflects their attempt to influence the environment itself to suit the interdependence nature of their self-systems (Markus & Kitayama, 1991). Although situated cognition theory has emphasized the holistic nature of the concept of acculturation into communities of practice, it has not fully explored the importance of emotional aspects involved when individuals are faced with an unfamiliar socio-cultural environment.

Interpreting CHC students' learning in the host country within a situative, socio-cultural appropriateness view of transfer is useful for challenging the deficit model of learning often applied to describe students' cognitions and behaviors at universities in Australia. Looking across the four types of transfer examined, it is striking to note that the aspects of learning that appeared to travel well across the two particular cultural-educational contexts were those that reflect students' fundamental belief systems about learning. High achievement motivation, a deep approach to learning, a belief in the importance of effort in learning, and a recognition of the benefits of social forms of learning for deep learning — these all reflect the influence of students' internalization of the overall value of education for personal and societal development in Confucian Heritage Culture. After years of acculturation at school, in the family, and the broader community, students' motivations and cognitions about learning would have become an integral part of their character, personality, and dispositions to act and think about learning in particular ways. What is remarkable about these particular aspects of learning, is not only the congruence between effectivities and affordances in both contexts, but the fact that they refer to universal context-independent characteristics of good learning.

In contrast, the aspects of learning categorized as involving difficult or inappropriate transfer tend to reflect students' strategic responses to their perceived requirements of the instructional context. Memorizing verbatim, copying extracts without proper referencing, and low participation in tutorial discussions can be interpreted in relation to specific aspects of the educational system in the home or in the host environment. They do not reflect students' fundamental beliefs about learning and are not part of their fundamental dispositions. These findings have implications for educational practice since they emphasize that the aspects of learning that are not congruent in the Australian university context are those affected by the instructional environment and therefore most amenable to change.

Examining transfer of learning from a "learning in context" perspective was important if the problematic issues related to CHC students' learning at the individual level (the level often misunderstood by educators) and at the systemic level which gives meaning and authenticity to their behaviors (Salomon, 1991) are to be addressed. The situative perspective embracing the larger cultural-educational context provides an overall conceptual framework for interpreting the meaning of individual practices within their ecological system. The broader picture is expected to complement the individual perspective by highlighting how the unique cultural characteristics, sets of values, and functionalities of a specific community of practice create constraints and affordances for those who participate in it. As reflected in the above examples, it is

within the broad situative perspective that the notion of socio-cultural appropriateness gives meaning to transfer of learning.

Finally, one important aspect to acknowledge when examining "learning in context" is that neither learners nor contexts are homogeneous or static entities. The effectivities–affordances interface should be conceptualized as being in constant flux. For example, important individual differences in experiences of learning at college were found within one single cohort of Singaporean students (Volet & Kee, 1993) and evidence of change in CHC students' learning emerged after only a few months of study at university in Australia (Volet & Renshaw, 1996). Similarly, learning contexts constantly evolve in interaction with broader societal pressures, internal politics, and even with the changing characteristics of student populations. In the same way as "snapshot" type research on CHC students' learning has led to their cognitions and behaviors being stereotyped and misunderstood, a context-based analysis of transfer of learning across learning contexts may lead to stereotyping contexts unless their ongoing creation of new constraints and affordances is acknowledged.

In Hong Kong, for example, the recent introduction of problem-based learning and portfolio methods of assessment (Biggs, 1996) have provided opportunities for students to engage in more high cognitive level strategies and less memorization. In Singapore, "being able to think independently and creatively" is now a desired outcome of education (Singapore Ministry of Education, 1998). Reciprocally, Australian universities are paying more attention to the quality of tertiary teaching and further development of educationally sound instructional approaches should benefit local and international students alike.

4. Implications for educational practice

The mutuality of the individual-context interface provides a useful starting point for examining the implications of the concept of socio-cultural appropriateness of transfer for educational practice in international, multicultural learning settings. On the one hand, the assimilation approach, based on an ethnocentric, deficit model and aiming at changing individuals' behaviors through remedial education, is inadequate (Biggs, 1997; Volet & Renshaw, 1996). This inadequacy stems from the fact that it is based on inaccurate perceptions of students' learning and subjective, value-laden views of what constitutes good teaching and learning.

On the other hand, the accommodation approach based on a customer-oriented model and aiming at adapting the host educational context to suit individual [cultural] differences is not satisfactory either. This is because it not only would be practically unrealistic to cater for all styles of learning, but also because it would involve using individual learning styles as the criteria for deciding on appropriate methods of instruction. As argued by Biggs (1997), "good learning is good learning" and the only valid approach is to teach in a way that maximizes effective learning by all students, local and international alike.

A third and the preferred approach is an educational model based on sound principles of learning which leads to "deep conceptual content" (Brown, 1994),

"durable, flexible, functional, meaningful and application oriented" learning outcomes (Simons, 1997) and learning-enhancing affordances for all students. The principles of learning applied in Communities of Learners settings (Brown, 1994; Cognition and Technology Group at Vanderbilt, 1994), self-regulated learning programs (Boekaerts, 1997), and process-oriented instruction (De Corte, 1996; De Jong, 1995; Vermunt, 1994; Volet, 1995) provide a sound basis for designing powerful learning environments in an international, multicultural perspective. Regardless of their cultural-educational backgrounds, all students need to be provided with opportunities to learn how to cognitively, motivationally, and emotionally self-scaffold their learning (Boekaerts, 1997) for independent as well as interdependent modes of participation (Salomon & Perkins, 1998). In the long term, active participation in authentic learning activities and mindful, shared regulation of learning may help students decontextualize their knowledge about learning and develop metacognitive strategies to "read" culturally and educationally different learning situations.

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