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CREATIVITY ACROSS-CULTURE: EDUCATORS' PERCEPTIONS AND VIEWS

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Abstract: Creativity has been discussed in the literature as if it is culture-free. In recent years, creativity researchers have begun to pay more attention to this issue and produced empirical evidence in support of the contention of cultural differences. This paper presents the findings of two such studies. The first investigates the validity of a East-West dichotomy of creativity as propounded by Howard Gardner, with reference to his "Chinese Key"; the second study compares the creativity fostering behaviour of teachers of different ethnicity; and, the third study investigates the views of British and Singaporean educators. The findings are discussed for their implication for classroom practices and, in a wider context, the effort of nations to promote creativity in the young.

Introduction

Creativity has been discussed in the literature with the tacit assumption that it is culture-free. It is only in the recent years that the cultural aspect of creativity has been studied explicitly. Eastern and Western views of creativity is said to be intuitive versus logical, respectively (Wonder and Blake, 1992) and the psychological aspect of creativity inherent in the ancient Chinese classic (*Tao Teh Chin* or the *Book of Way* by Lao Tsu) has also been discussed (Kuo, 1996).

Empirical studies have also begun to appear. For instance, Li and Shallcross (1992) found different approaches to solving the nine-dot problem between Chinese and American elementary and high school students. Khaleefa, Erdos, and Ashaia (1997) reported differences between adolescents who of the traditional schools and those of the modern schools in their performance in creativity tests. At the adult level, differences were found between Singaporean educators/administrators and British teachers (Soh, 1997).

Evidently, culture does play a role in the development and conception of creativity and researchers are increasingly aware of the need to investigate this aspect of creativity both conceptually and empirically. Against the backdrop of the current situation of cross-cultural creativity research, this paper presents the summaries of three studies recently completed and discusses the implications for education and educators.

Study 1: East-West Difference in Creativity (Soh, 1999)

Early eighties, Professor Howard Gardner led a team of American artists and arts educators for a study tour to China. They visited major art colleges and conservatories in the major cities. This historic tour culminated in a special issue of *the Journal of Aesthetic Education* (Vol. 23, No. 1, 1989) and the highly readable *To Open Minds* (Gardner, 1991). A common theme is that the authors found the (over-)emphasis placed by the Chinese on skills acquired through very rigid training programs unpalatable. As seen by the American visitors, such an approach to creativity will in fact discourage rather than encourage its development. Of late, Gardner (1997) presents a more balanced view and suggested that a combined approach may be the optimal for both the East and the West. In fact, Gardner (1991, p.160) brought up the stark contrasts of the two approaches to art education (and hence, creativity) which can be summarised thus:

Aspects	American	Chinese
Organisation	Completely decentralised	Central promulgated
Goals	Expressive and personal	Nationalistic and moral
Methods	Free exploration	Imitation and copying
Content	Relatively unstipulated	Rigidly designated
Professionalisation	Far more ambivalent	Far less ambivalent
Evaluation	Differences of opinion	Consensus
Status	Lower	Higher

Gardner (1997) went further to describe what he believed to be the then prevalent Chinese view of education, creativity, and life. He posited that the Chinese philosophy is characterised by the following five assumptions:

- Life should unfold like a performance, with carefully delineated roles.
- All art should be beautiful and should lead to good behavior.
- Control is essential and must emanate from the top.
- Education should take place by continual careful shaping.
- Basic skills are fundamental and must precede any efforts to encourage creativity.

Because Gardner's five assumptions are compound ideas, they were re-phrased so that each item contains only one idea. These were crafted as a set of 5-point Likert-type items and responded by 107 teachers who attended the present writer's workshop on creativity organised by the Singapore Teachers' Union. Fifty-eight (54%) of these are Chinese Language teachers and the other 49 (46%) teach various subject in English. The first group of teachers are all Chinese while the second group has 75% Chinese and 25% non-Chinese. It is assumed that the former is steeped in the Chinese culture (hereafter the Eastern group) whereas the latter is more western in outlook (hereafter the Western group), because of their respective educational experience.

Table 1: Mean Comparisons on Views of Education, Life and Creativity

	Eastern		Western		t	Effect size
	Mean	SD	Mean	SD		
Life should unfold like a performance	4.24	0.86	3.59	0.91	3.78*	0.76
All art should be beautiful	4.03	1.01	3.22	1.26	3.69*	0.80
Control is essential	4.12	0.84	3.43	1.10	3.69*	0.82
Education should take place by gradual shaping	3.93	1.21	2.57	1.04	1.63	1.12
Basic skills are fundamental	4.50	0.78	4.53	0.84	0.19	0.04
Life should have carefully delineated roles	3.79	0.95	3.29	1.06	2.61*	0.53
All art should lead to good behaviour	4.07	1.09	3.24	1.01	3.63*	0.76
Control must emanate from the top	3.36	1.19	2.71	1.24	2.76*	0.55
Education should be continual	4.79	0.61	4.67	0.86	0.84	0.20
Basic skills must precede creativity	4.36	1.07	3.78	1.21	2.66*	0.54

* $p < 0.05$.

As shown in Table 1, the Eastern group agreed more than did the Western group that life should unfold like a performance, with carefully delineated roles; all art should be beautiful and should lead to good behaviour; control is essential and must emanate from the top; and, basic skills must precede any efforts to encourage creativity. But, the two groups held the same view that basic skills are fundamental and that education should take place by continual careful shaping.

Study 2: Teachers' Creativity Fostering Behaviours (Soh, in press)

The teacher's action and reaction to student creativity are a signal to the students regarding the acceptability of their creative efforts, outcome, and personal inclinations. A teacher can intentionally or inadvertently encourage or discourage student creativity in a classroom. Having discussed the various conditions and factors of student creativity, Cropley(1997) listed the following as creativity fostering teachers' classroom behaviour:

- Encouraging students to learn independently.
- Have a co-operative, socially integrative style of teaching.
- Motivate their students to master factual knowledge, so that they have a solid base for divergent thinking.
- Delay judging students' ideas until they have been thoroughly worked out and clearly formulated.
- Encourage flexible thinking.
- Promote self-evaluation in students.
- Take students' suggestions and questions seriously.
- Offer students opportunities to work with a wide variety of materials and under many different conditions.
- Help students to learn to cope with frustration and failure, so that they have the courage to try the new and unusual.

For each of these characteristics, five behaviour manifestation statements were generated. The 45 items edited after having been scrutinised by 20 graduate students who are experienced teachers attending the present writer's graduate seminars, *The Psychology of Creativity: Theories and Application*. The 45-item questionnaire was then responded to by 117 teachers contacted through the graduate students from a wide range of primary and secondary schools and junior colleges. Sixty-five (55.6%) of the respondents are Chinese while the rest (52 or 44.4%) are non-Chinese.

Table 2 shows the results of comparisons made between the two groups. Although the Chinese group scored significantly lower than did the Non-Chinese group on the scale as a whole, a Wilk's Lambda of 0.92 ($F = 1.05$, $df 9,107$, $p = 0.41$) indicates an absence of overall difference when the nine scales were considered together. However, significant univariate F 's were obtained for Integration, Judgement, Flexibility, Question, Opportunities, and Frustration, all in favour of the Non-Chinese teachers. When the Chinese group was designated as the 'control' group, there is a medium effect size of 0.43 for the scale as a whole. And, of the nine scales considered separately, Independence, Motivation, and Evaluation have small effect sizes around 0.25 and the other scales have moderate effect sizes varying from 0.36 to 0.51.

Table 2: Mean Comparisons on Teachers' Creativity Fostering Behaviours

		Eastern		Western		t	Effect size
		Mean	SD	Mean	SD		
CFT Index	.96	203.26	28.08	215.37	26.01	2.39*	0.43
Independence	.76	21.43	3.21	22.27	3.86	1.29	0.26
Integration	.85	23.52	4.32	25.12	3.39	2.18*	0.37
Motivation	.74	23.85	3.12	24.67	3.70	1.31	0.26
Judgement	.83	21.69	4.05	23.15	3.72	2.10*	0.36
Flexibility	.78	21.77	4.23	23.46	3.36	2.35*	0.40
Evaluation	.69	22.09	3.75	23.02	3.40	1.10	0.25
Question	.82	22.88	3.56	24.71	2.99	2.98*	0.51
Opportunities	.83	23.00	3.47	24.56	3.47	2.41*	0.45
Frustration	.86	23.03	3.63	24.40	3.79	1.99*	0.38

Note: Figures are scale names are Cronbach's alpha coefficients. * $p < 0.05$

Study 3: Teachers' Implicit Theories of Creativity

As pointed out by Runco, Nemiro, & Walberg (1998), implicit theories are "stable, multifaceted, and most importantly, personal" (p.2) and, therefore, have more ecological validity or real-world contextual relevance (Runco & Bahleda, 1986). To the extent implicit theories of creativity influence what to the teacher is or is not creative, and to the extent teachers' behaviours in promoting creativity are guided by such beliefs, their implicit theories of creativity are educationally important. However, much of creativity research has as its focus on students' creative behaviour and little has been done on teachers. The study of British teachers' views on creativity (Fryer & Colognes, 1991) is a welcome exception and the study summarised here is an attempt to ascertain cross-cultural differences between Singaporean teachers who have different cultural backgrounds.

Although implicit theories are personal by nature, it stands to reason that individuals who have had similar cultural experience will hold beliefs that are largely similar. This contention is interestingly illustrated by Gardner's (1997) depiction of his 20-month-old son Benjamin's attempt to slot a hotel key into a key hole in a hotel in China. In essence, Gardner is of the view that an American and a Chinese hotel guests will behave differently toward Benjamin in this same situation because of their different beliefs (implicit theories) of creativity.

From the British study (Fryer & Colognes, 1991), two sets of items were adapted. The first comprises 18 single words or short phrases dealing with the meanings of creativity. The second set includes nine descriptive phrases indicative of the nature of creativity. These were presented as a series of six-point Likert-type items to the 113 teachers who attended the present writer's workshop on the teaching and assessment of creativity. Of these teachers, 69 (61.1%) are teachers of Chinese Language while the remaining 44 (38.9%) are teachers of other subjects using English Language. In view of their different educational backgrounds, the two groups are labelled Eastern and Western. In terms of ethnicity, all in the Eastern group and 28.4% in the Western group are Chinese, with 71.6% of the latter group being non-Chinese.

The inherent structures of the two sets of items were established separately through principal component analysis followed by varimax rotation. Based on the factor loadings, items loading significantly on the same factor were used to form an interpretable scale. The first set of items

yielded five interpretable orthogonal factors and the second three. The Eastern and Western groups were then compared on these eight factors (Table 3).

Table 3: Mean Comparisons on Meanings and Nature of Creativity

Factors	Defining items
Meanings of creativity	
Aesthetics	Mysterious processes, awareness of beauty, valuable ideas, aesthetic products
Divergence	Divergent thinking, innovation, self-expression, inspiration
Product	Unconscious activities, tangible products, convergent thinking, discovery
Association	Combining ideas, seeing connection
Inventiveness	Original ideas, various thinking processes, invention
Nature of creativity	
Inclusiveness	Defined by the creators, defined by the society, the same in adults and children, the same across cultures
Boundary	Limitless, only relevant to some subjects
Variability	Can be developed, like intelligence

As Table 4 shows, the Western group scored significantly higher than the Eastern group on three of the five factors of the meanings of creativity, namely, Divergence, Association, and Inventiveness, with moderate effect sizes. Moreover, where the nature of creativity is concerned, the Western group significantly scored higher than did the Eastern group on Inclusiveness but lower in Variability. On the whole, it appears that the Western group held a more liberal or flexible conceptions of creativity.

Table 4: Mean Comparisons on Meanings and Nature of Creativity

	Eastern (N=69)		Western (N=44)		t	Effect size
	Mean	SD	Mean	SD		
Meanings of creativity						
Aesthetics .51	2.59	1.20	3.00	0.97	1.88	0.34
Divergence .52	2.54	1.13	3.11	1.04	2.73*	0.50
Product .52	2.54	1.08	2.89	1.26	1.57	0.32
Association .42	1.15	0.67	1.64	0.72	3.70*	0.73
Inventiveness .46	1.70	0.86	2.18	0.79	3.02*	0.56
Nature of creativity						
Inclusiveness .59	11.07	3.94	13.39	3.50	3.18*	0.59
Boundary .50	5.33	0.90	5.41	1.13	0.39	0.09
Variability .10	4.73	1.68	3.48	1.71	3.83*	0.74

Note: Figures are scale means and SDs are Cronbach's alpha coefficients, * p < 0.05

Discussion

Gardner (1991, p. 283) contrasts between the Eastern (Chinese) and the Western (American) views of art education (and hence, creativity) by referring to fears harboured in each culture, thus:

Chinese teachers are fearful that if skills are not acquired early, they may never be acquired: there is, on the other hand, no comparable hurry to inculcate creativity. American educators fear that unless creativity has been acquired early, it may never emerge: on the other hand, skills can be picked up at a later date.

Gardner (1991, p. 303) further concludes, thus:

One lesson impressed upon me in my survey of educational institutions is that it makes little sense to transpose an educational practice en bloc from one culture to another. Even when one attempts to effect such a transposition carefully, the practice will immediately be refashioned by the alien context in ways difficult to anticipate.

Such conclusions emphatically underline the need for and importance of the awareness of cultural differences if creativity is to develop in the Asian classrooms. Although such extremely opposing views of creativity may not exist among teachers in a multicultural society of Singapore (and the like), the cultural differences found in the three summarised studies deserve some serious thinking at this early stage of promoting creativity.

At the classroom level, student behaviour encouraged by teachers of one cultural background as being creative may be eschewed by those from another as being disruptive. Asking unexpected questions or coming up with unusual answers are too familiar examples. Preferences for colours, shapes, and symmetry/asymmetry are other common examples of culture-based behaviour which may elicit different responses from teachers with different cultural backgrounds. And, a vivid example is Mr. Clever, a boy who draws the *inside* of a human head when his classmates obligingly draw the outside (Cropley, 1997). These have obvious implications for cognitive learning and classroom discipline.

It is a truism that students bring into the classroom their respective cultural experiences and with these their conceptions of what is appropriate and creative and what not. Thus, in a multiethnic classroom, the multiplicity of culture is the norm. When combined with the cultural multiplicity of teachers, the permutation is not going to be small. The task of promoting creativity in such a situation is not likely to be easy. There is obviously a need to promote an understanding of and mutual respect for cultural differences in creativity, besides training creativity techniques alone.

At the systemic level, many teachers find themselves in need of training that will quip them to promote creative thinking among the students. At present, practically all such training programme are those developed in the West, especially the US, based on Western conceptions of creativity. Understandably, how teachers receive such training programmes depends to some extent on their views on what does or does not constitute creativity as culturally defined. Obviously, for training to be successful, there is a need to ensure a reasonable degree of congruence between the teachers' conceptions of creativity and those on which the training programmes based.

This paper might have given rise to more questions than it answers. Although cross-cultural research on creativity does not represent a totally new domain, as the new editor of the *Journal of Creative Behavior* emphatically expressed, cross-cultural work on creativity is desperately needed (Ward, personal communication, 1999).

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