

*How Does  
a Student  
of Cultural  
Psychology and  
Cognitive Science  
Do Both Without  
Feeling Like She  
Has Left Out  
the Best of Each  
Tradition?*



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When I was asked by Bill Gabrenya to write the “life” of the dissertation that was awarded the 2002 Harry and Pola Triandis Doctoral Thesis Award, he advised me to “keep it LIGHT.” Good advice, I thought to myself. After all, *Bulletins* are read with a smile, usually in elevators, or over a cup of coffee. However, as I thought more about my graduate studies and the decisions I made along the way, and as I compared all of this to the peer acknowledgement that the Triandis Award represents, I found it hard to keep it light. As a compromise, I have written a story that reads much like a tragic comedy. It is my best effort at expressing what it was like for a student, with half formulated ideas and big dreams, to do cultural cognition in a setting that largely did not support such research, save for a few individuals. My advisor, Peter Denny, was one such person among a few others in the departments of psychology and anthropology. Without the support of these individuals I could not have continued; nevertheless, when there is a mismatch between what you love to do and the academic setting which you must do it in, complexities arise. I remember some of the growing pains.

At the beginning of my graduate studies, I didn’t know what I wanted to study in psychology, for I was completely taken by philosophy of science. I began my graduate studies in psychology with an announcement to my advisor, “I think I should exam-

ine 'the turn' to discourse in Derridian postmodernism and the implications for psychological theory." At the time, I naturally meant all of psychological theory, for students think in bigger chunks than academics. Blessed with eternal intellectual curiosity, Peter discussed these issues at length with me during the summer months, helping me to turn philosophical curiosity into a degree in psychology. I remember how he offered lots of advice along the way. He warned me very early on that I would have to play my cards right: "You can do all the cultural psychology you want," he warned, "but make sure you still come off as a cognitive scientist." It was the right advice for the time, since there wasn't yet a boom in cultural psychology and our academic setting had a long and unsympathetic history with

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such views. His advice could have been daunting to a fledgling. But as an immigrant to Canada, I knew what it was like to play the identity game; a student of



**Child Sample:** *Lebanese children eating fresh roasted chick peas on their time off as participants.*

cognitive science by day, and by night, a radical Marxist and neo-Vygotskian of Arab origins in dark academic alcoves where the wrong people met to talk about the wrong things.

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There were other growing pains and hard decisions to make in that expanse of time between the master's degree and the dissertation. To help keep a long story short, the growing pains were similar to those that the IACCP is going through as an organisation (Smith, Harb, Lonner, & van de Vijver, 2001).

I started out studying the cross-cultural variability of cognitive styles, by comparing the integrative and contextualising styles of immigrant Middle-Easterners and average Euro-Canadians. Although this work was well received by JCCP's reviewers, I did not continue it as my main line of research for a number of reasons, which in retrospect, are significant to how I eventually came to understand the relationship between cognitive science and cultural psychology.

### *ABOUT THE AUTHOR*

Samar Zebian was born in the Bekka Valley region of Lebanon. Her family emigrated to Canada in 1972 where they currently reside.

She received an MA and a PhD. in psychology from the University of Western Ontario, Canada in September 2000. She was appointed Assistant Professor at the American University of Beirut, Department of Social and Behavioural Sciences in October, 2000. She moved to Beirut five days after defending her thesis, and has been in Lebanon for two years. She is currently on sabbatical leave.

Her current research programs include adult mathematical cognition and the linkages to non-quantitative thinking; the influences of cultural artifacts and social practice on everyday mathematical thinking; higher order thinking, reasoning and communication in Lebanese elementary mathematics classrooms; and cross-cultural variability in preferred cognitive styles.

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At the time, in 1996, much of the cognitive style research was focused on showing its cross-cultural variability, and on developing accounts of the socio-historical origins of cognitive style preferences. I recognised the necessity and merit of each contribution. These issues were also of personal relevance to me as a bicultural individual. Nevertheless, the pressure to do the kind of cognitive science that was valued in my program continued to preoccupy me and directed my attention to all the gaps in the literature. At the time and in the setting the gaps appeared larger than they really are.

I grew intolerant of the way “culture” was being used as an independent variable to study cognitive style variability. Also, I felt little was being done to understand the basic cognitive processes that support cognitive style preferences. Relevant findings and research methods from the broader field of psychology were not being drawn upon and integrated into the cross-cultural data, although today, Nisbett and colleagues (2001) have generated and brought together mountains of interdisciplinary research. Furthermore, I was overwhelmed by the socio-historical research and the unavailability of broader psychological theory that was, and still is, needed to advance and evaluate historic eco-cultural models of human cognition.

Finally, I had less intellectually motivated reasons for wanting to do other research. I wanted my work to be valued and perceived as “rigorous” in my program. I failed to see at the time how narrowly this word was being used. From the perspective of a student, the category of rigorous research seemed to involve the following criteria:

- Useful data ought to be computationally modelable;
- One research question should be broken down into seven sub-studies

**Adult Research Sample.**

*Some of the Arabic monoliterate and illiterate participants in Lebanon, after their morning coffee and just before the psychology experiment.*



each of which separately examine the potential effects of one of seven independent variables;

- Research reports must (with emphatic emphasis on “must”) not report the findings of ethnographic research for fear that such data and ideas will overwhelm the delicate balance between the physical and human sciences in the discipline;
- If it is absolutely necessary to study the thought patterns of non-Westerners, take great care not to describe in a positive manner, patterns of thought which are counterintuitive and strange to Western modes of thinking.

I came to a full stop, after the cognitive style research, and spent some time mulling over where I was headed—the kind of deep thinking that people do when they are genuinely lost. Exhausting conventional means of decision-making, I remember reading a lot of Russian literature and philosophy for creative inspiration. Over time and ever so gradually my thoughts started to take form, and the topic of numeric cognition emerged. The decision to do research in numeric and quantitative thinking was a strategic one: I was looking for a topic that would allow me to carefully study how cultural practices and artefacts affect automatic numeric processes, which we assume are culturally invariant, i.e., the meaning of a number. With further reading, it became easier to see how research on numeric cognition and research in cross-cultural mathematics could be coordinated and could lead to empirically testable hypotheses.

The adult numeric cognition literature has a long history of dismissing, or being ambivalent about, the cultural contributions to the development of mathematical thinking. Also holding cross-cultural math psychology accountable, researchers were not actively developing theories and empirical methods to investigate how cultural practices and artifacts affect basic on-

**Samar Zebian  
and Harry  
Triandis.**

*Yogyakarta, Indonesia,  
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line mathematical processes. In my dissertation research, two separate but related studies examined number conceptualisation and how even the most automatic processes can be modified by specific culturally situated math numeracy practices. To be more specific, one series of studies looked at how the directionality of one's writing system has an effect on the spatial orientation of the mental number line. A mental number line is an internalized representation of the semantic properties and relations between number concepts. For English monoliterates the mental number line has a left-right directionality, with small magnitudes on the left and larger magnitudes situated to the right of smaller numbers. This is referred to as the SNARC effect (Spatial Numeric Association Response Code). In my research I

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asked whether this mental number line had the same directionality for all people, specifically monoliterate Arabic speakers who use a right-to-left writing system. I used a speeded numeral judgment task to investigate how Arabic monoliterates conceptualised the mental number line. The second series of related but separate studies on number conceptualisation examined how the currency-based numeracy and accounting practices of modernising and traditional Lebanese business people affect how they conceptualised numbers. These series of studies involved natural observations of literate and illiterate numeracy practices in business, followed up by experimental methods to assess number conceptualisation processes.

SO NOW I had a topic and I had research questions that met my most pressing concerns.

I decided to leave the university and the lab behind to do rigorous studies of cognition "in the wild," to use a term made popular by Ed Hutchins. I went to Lebanon with my son Jawad to find monoliterate Arabic speakers. They weren't easy to find; globalisation is far reaching and most middle-aged Lebanese adults are either bilingual or trilingual. For the second series of studies, I spent a lot of the summer doing ethnographic work in small businesses across Lebanon to study how they used paper-based literacy and monetary currency in their business transactions and accounting practices. With the ethnographic work as my starting point, I made predictions about the kinds of number processing skills that were needed to meet the pervasive socio-cognitive demands of their work. I tested these predictions using a speeded naming and priming task on a Macintosh laptop in several make-shift labs.

In the field you have to be creative about what it means to be a researcher. I spent a lot of time doing computer friendly exercises to ease the apprehensions of some participants. There was also a lot of discussion and debate between the other participants and myself. The presence of the computer lead to discussions about the role of Western technology in world politics, and the way the West has affected Middle-Eastern family values. This last topic was a natural segue to the questions they had for me. Politely I was asked, what on earth I was doing thousands of miles away from my family doing things that seemed like “mental quickness” studies but were more likely a guise for undercover intelligence work? Despite all the hardships of doing experimental work in this setting, it remains the most memorable—and what I regard as the most informative part—of my dissertation work.

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***I am comforted knowing that there is no inherent mismatch or tension between (cross-) cultural psychology and cognitive science.***

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I feel fortunate to be a student of cultural cognition today and to be respectfully standing on the shoulders of researchers who worked to understand the relationship between thought and culture when it wasn't in fashion. Today, there is a lot of exciting research (noting the work of only a few: Hutchins, Tomasello, Henze, Cole, Greenfield, Scribner, Bruner, Nisbett et al. (2001). When I consider the diversity of these approaches and other approaches to culture and cognition, I am comforted knowing that there is no inherent mismatch or tension between cultural (and cross-cultural) psychology and cognitive science. With this realisation, I am finally free of the pressures that preoccupied my graduate studies.

In closing, I want to thank the dedicated members of IACCP for having the foresight to establish and develop the Triandis Award. To my knowledge, there is no other award for young scholars of culture and psychology of its calibre (save for one small scale competition I found on the internet). It is a credit to the organisation. Awards such as this are very important for young researchers, and in addition to the short but fulfilling moment under the spotlight, the award is strong evidence of the field's vitality.

### **REFERENCES**

Nisbett, R., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108, 291-310.

Smith, P., Harb, C., Lonner, W., & van de Vijver, F. (2001). The Journal of Cross-Cultural Psychology between 1993 ad 2000: Looking back and looking ahead. *Journal of Cross-cultural Psychology*, 32, 9-17.