COMMENTARY



Culture, Motivation, Self-Regulation, and the Impactful Work of Dennis M. McInerney

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Abstract

This tribute celebrates the distinguished scholarship and extraordinary life of Dennis Michael McInerney, who passed away in Hong Kong on May 20th, 2022. It is a testimony of his impact on our professional and personal lives while highlighting the multitude and depth of his scholarly contributions. McInerney was one of those thinkers who invited us to reconsider how we conceptualize, assess, and apply scientific investigations in our teaching and learning practices. He authored and coauthored numerous widely used books and published numerous research articles in peer-refereed journals. During his remarkable career, McInerney dedicated a significant part to researching the problems associated with studying culture and uncovering how culture is a missing link in most motivation research. He believed there was a noteworthy need to conduct Indigenous educational research to understand the extent to which mainstream motivation theories apply to culturally diverse groups and stand up to cross-cultural testing scrutiny. McInerney's influence and impact will transcend future generations of research, given the gravity of his scholarly contributions.

Keyword Culture \cdot Achievement motivation \cdot Social \cdot Indigenous people \cdot Crosscultural education \cdot Personal investment theory

At several points in history, the field of educational psychology witnessed the emergence of original and creative thinkers who turned the course of our paths in an entirely new direction. Dennis Michael McInerney was one of those thinkers. He invited us to reconsider how we conceptualize, assess, and apply scientific

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investigations in our teaching and learning practices. In this tribute, we celebrate the distinguished scholarship and extraordinary life of Dennis, who passed away in Hong Kong on May 20th, 2022. This tribute is a testimony to Dennis' impact on our professional and personal lives while highlighting the multitude and depth of Dennis' scholarly contributions.

Dennis was born to Bridie Kathleen Hiscock and John Christian McInerney in Wagga Wagga, a small town in New South Wales, Australia, on May 12th, 1948. He was the ninth of ten siblings. At age 10, his family moved to Sydney. Dennis was inspired by his caring teachers and realized he wanted to become a teacher too. He received a BA from Macquarie University, specializing in English and History. Dennis also held a BEd and MEd from the University of New England and a PhD from the University of Sydney. Dennis was a registered psychologist, an Associate Fellow of the Hong Kong Psychological Society, and a member of the Australian Psychological Society and the American Psychological Association.

His interest in educational psychology started when he took an introductory psychology course. This emerging interest led to a long and storied career. In 1975, Dennis started teaching at the University of Western Sydney (UWS), where he was responsible for designing and coordinating introductory educational and developmental psychology courses. He stayed on with UWS until 2006. Dennis held academic and management positions. He was a Research Professor, an Associate Director of the SELF Research Centre at UWS and an Associate Dean (Research) at the National Institute of Education, Nanyang Technological University, Singapore.

He then joined The Hong Kong Institute of Education in 2008, when the thenpresident recruited him to be part of a pioneering batch of scholars to help transform the institute into a research-intensive university. He was instrumental in helping enhance the research culture of the institute, which was eventually conferred the university title and renamed The Education University of Hong Kong. There, he held the positions of Chair Professor of Educational Psychology, Associate Vice President, Co-Director of the Assessment Research Centre, and later after his retirement, an Honorary Professor. At The Education University of Hong Kong, Dennis mentored doctoral students and many early career researchers who carried his intellectual legacy.

As a prolific writer, Dennis authored and co-authored numerous widely used books. His classic, *Educational Psychology: Constructing Learning*, has been a leading textbook for pre-service teachers in Australia and is now in its sixth edition. Other books under his belt include *Developmental and Educational Psychology for Teachers: An Applied Approach; Developmental Psychology for Teachers*; *Helping Kids Achieve Their Best: Understanding and Using Motivation in the Classroom*; and *Publishing Your Psychology Research*. He published close to 200 research articles in peer-refereed journals and book chapters. Dennis edited two landmark research series, *Research on Sociocultural Influences on Motivation and Learning* (Vols 1–14) and *International Advances in Self Research* (Vols 1–4).

Enjoying conducting research with students, mentees, and colleagues—both junior and senior—was one of Dennis' hallmarks. He received numerous research grants and important professional accolades, including UWS's Senior Researcher Award and the President's Award for Outstanding Performance in Research at The



Hong Kong Institute of Education. His innovative research focused on culture and schooling to consider the personal investment theory and understand cultural universality and variability (King & McInerney, 2014a, 2016; King et al., 2018a, b; Maehr & McInerney, 2004a, b). The educational and developmental psychology disciplines have benefited from his research distinguishing between *emic* and *etic* as two essential research approaches to understanding individual differences within and across cultures (McInerney, 2008b). On this point, he asserted that "My continuing research has been heavily dependent on the notions of *emic* (culturally specific constructs) and *etic* (universal constructs) and finding culturally appropriate ways of measuring such psychological constructs as motivation and self-concept, which are heavily embedded in Western theorising and research" (Bembenutty, 2015, p. 221).

During his remarkable career, Dennis dedicated a significant part to researching the problems associated with studying culture, uncovering how culture is a missing link in most motivation research. He believed there was a noteworthy need to conduct Indigenous educational research to understand the extent to which mainstream motivation theories apply to culturally diverse groups and stand up to cross-cultural testing scrutiny (McInerney et al., 1997). Dennis was a trailblazer who broke barriers since some mainstream journals were not interested in publishing research conducted with the methodological approaches used in cross-cultural research. He was particularly critical of the power that statistical techniques, such as confirmatory factor analysis (CFA) and exploratory structural equation modeling (ESEM), have in 'revealing' the reality. While the purists would consider differences in factor loadings and uniquenesses between cultural groups as a lack of measurement invariance that prevents further analyses, Dennis attributed those 'errors' to the possible fundamental group differences underpinned by cultural differences.

Throughout his career, Dennis' research also focused on how sociocultural factors influence learning and motivation. His research helped shed light on the role of parents, peers, and teachers in academic performance (King & McInerney, 2014a, 2016; McInerney et al., 2008; Yeung et al., 2007). Concerning academic and social achievement goals, Dennis was interested in the cross-cultural analysis of similarities and differences between groups classified as individualist and collectivist cultures (King et al., 2012, McInerney & King 2013; McInerney, 2012). Being a dedicated teacher himself, Dennis also devoted a significant amount of research to understanding teachers' commitment, values, and turnover intentions (McInerney et al., 2015a; Wang et al., 2021).

Another research interest Dennis focused on was the motivational and cross-cultural differences in how individuals perceive future time perspective (Brickman et al., 2009; McInerney & Van Etten, 2004). His work convinced him that having a future-time perspective positively affects academic performance, short- and long-term goals, and the use of metacognition. His research among Native Americans as well as his research in Singapore, Hong Kong, and Australia confirmed that endorsing future goals was associated with positive achievement outcomes. For Dennis, there were crucial cultural group similarities and differences in how individuals adopt future goals (Lee et al., 2010).

Taking his work together, Dennis significantly advanced the understanding of individual and group cultural factors influencing achievement motivation. His



scholarship signaled how motivation and self-regulated learning research could be conducted. Research needs to include a wide range of cultural groups that draw heavily upon non-Westerners and critique current theoretical frameworks from an emic perspective. He invited the scientific community to conduct more emic research to understand better the universality of achievement motivation, cultural differences, and critical analysis of sociocultural influences on academic motivation and learning. Dennis' eminent contributions to cultural diversity, equity, and inclusion calls for research on social and educational improvements for Indigenous Australian children to better understand and enhance their life chances, future goals, motivation, learning, and achievement in their cultural context. His theoretical shine, intellectual courage, and care for all, particularly those from underrepresented cultures, will continue inspiring the birth of new research, instructional practices, and learning approaches. The following ten tributes are testimonies of Dennis' scholarly feat and well-lived life.

The Inventory of School Motivation: Where Theory Meets **Cross-Cultural Measurement**

Andrew J. Martin

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Dennis cut through to the essence of an idea and communicated it with tremendous effectiveness. Educational psychology was the great beneficiary of this—by way of his textbooks, edited volumes, chapters, and journal articles. Indeed, many of his textbooks and resources for practitioners are the gold standard in research translation, synthesis, and communication. His capacity to distill complex concepts into clear-cut messaging was also evident in his development of psychometrically sound motivation measurement tools that could be applied across diverse cultural groups.

The Inventory of School Motivation (ISM; McInerney & Sinclair, 1991) is one such instrument. Drawing on significant motivational theorizing—Personal Investment (PI) theory (Maehr, 1984)—the ISM is a measurement tool that can be administered in diverse cultural contexts. Grounded in a social-cognitive framework, PI theory recognizes the importance of situational and sociocultural factors in shaping how individuals appraise the meaning of situations, how they choose to invest their time and energy, and what tasks and activities are worthy of that investment. It comprises three main dimensions: personal incentives, sense of self, and perceived alternatives that jointly impact personal investment (i.e., motivation) in each task or situation. Personal incentives reflect the goals that drive individuals. Sense of self reflects individuals' self-related perceptions, beliefs, and feelings. Personal alternatives are individuals' perceptions about what options are available to them. PI theory reflects an approach to motivation that accounts for individuals' decisions and actions in different sociocultural contexts (Maehr & McInerney, 2004a, b; McInerney & Liem, 2009)—a vital principle guiding the development of the ISM. The ISM focuses on two parts of PI theory—personal incentives (goals) and sense of



self—but the goals component is most salient in research. Sense of self is more of an auxiliary aspect of the ISM.

The ISM assesses four goals, with two subgoals under each: task (or mastery) goals, comprising task involvement and effort/striving for excellence; ego (or performance) goals, comprising competitiveness and social power/group leadership; social solidarity goals, comprising affiliation and social concern; and extrinsic goals, comprising praise/recognition and token rewards. The sense of self component has three parts: self-esteem, reflecting an individual's self-belief in the school context; a sense of competence, reflecting one's sense of self as an independent worker; and a sense of purpose, reflecting an individual's sense of schooling to get ahead in life.

By attending to educational goals that are relevant in various sociocultural settings, the ISM addresses some well-known limitations in classic Western goal frameworks that are centered on self, competitive, or individualistic dimensions but which are not fit for purpose when it comes to social goals, especially in collectivist cultures (Dowson & McInerney, 2003). Thus, the development of the ISM is a significant contribution in that it constitutes a motivation measurement tool that can be administered across diverse cultural groups and be a means to test (and, on occasion, contest) cultural stereotypes and intuitively held beliefs about students from other cultures that are not often rigorously tested. For example, at the time of the ISM's development, many researchers had been asserting that the values and goals of children in Western societies were quite different from those of children in non-Western Indigenous societies (McInerney et al., 1997). McInerney et al. (1997) quite rightly lamented that "many of these beliefs are intuitive with little empirical basis" (p. 223)—hence, the need for motivation assessment tools that are reliable and valid across cultures to test these assumptions. The ISM addressed this significant gap in measurement.

In the first cross-cultural application of the ISM, McInerney et al. (1997) found predominant construct validation evidence across Indigenous Australians, non-Indigenous Australians, Australian immigrants, Navajo Indians, and Montagnais Betsiamite Indians. McInerney and colleagues (2001; see also McInerney, 2008a). McInerney and Ali (2006) found predominant cross-cultural support for the ISM in seven different cultural groups in high schools in Australia, Hong Kong, the USA, and Africa. Xu and Barnes (2011) found predominant invariance for the ISM across American and Chinese students. King et al. (2012) found that the ISM met the minimum criterion for invariance across Hong Kong and Philippine student samples. Ganotice et al. (2012) found factor invariance when administering a Filipino and English language version of the Inventory of School Motivation (ISM) to a bilingual sample who were randomly assigned to one version or the other. Research has also demonstrated that ISM factors correlate with educational outcomes in hypothesized and consistent ways across cultures (e.g., Ganotice et al., 2012; King et al., 2012).

However, notwithstanding the predominant cross-cultural generality of the ISM, McInerney et al., (2001) found that not all items were equivalent across Navajo and Anglo high school students. McInerney and Ali (2006) found that some groups (e.g., Hong Kong Chinese and African samples) did not interpret social goals the same way as other groups. Xu and Barnes (2011) found some uniqueness in factor structure across American and Chinese students. The ISM is thus sensitive to unique



and distinct motivation features among different cultural groups. Dennis addressed significant shortcomings in motivation assessment, shed much-needed light on previously neglected cultural groups, and laid a rigorous measurement foundation for more effectively supporting diverse groups of students through school—and beyond.

A True Scholar with an Authentic Self

Gregory Arief D. Liem

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Dennis lived an authentic life. His colleagues and students could not be mistaken for seeing Dennis as a highly extroverted and readily open-to-experience person. It was for who he was that Dennis created his chances to nurture his ability to relate empathetically to people of diverse backgrounds and to enthusiastically embrace living in places that are culturally distant from his country of origin. It was also rooted in these traits that his passion for understanding the role of culture in motivation and learning—the common thread in Dennis' scholarly contributions—germinated and grew throughout his professional life (Liem & Bernardo, 2013). Indeed, his stint with Martin Maehr at the University of Michigan in the mid-1980s also sparked and further shaped what later became Dennis' cross-cultural line of inquiry into student motivation and learning.

While an early critical analysis of sociocultural influences on academic motivation and learning first emerged in the 1970s (e.g., Maehr, 1974), it was only decades later that culture began to take a more central stage, as shown in the publication of special periodical issues on these topics (e.g., King & McInerney, 2016; Zusho & Kumar, 2018). It has now become a widely discussed critique and adopted caveat that most of the psychology research has involved researchers and participants from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies whose people, paradoxically, account for less than 15% of the world's population (Henrich, 2020). This is also true regarding educational psychology (Usher, 2018) and academic motivation research and theorizing (King & McInerney, 2014a; Liem & McInerney, 2022). Not surprisingly, the lack of global representativeness has raised a scholarly debate concerning the generalizability of psychology's findings and, consequently, the universality of its models, principles, measurement, and applicability for most members of the human family (Henrich, 2020). Again, educational psychology, or academic motivation, in particular, is not free from this skepticism (Pajares, 2007).

Long before the current growing recognition of the role of culture in academic motivation and learning, one of Dennis' notable contributions was his book series, Research on Sociocultural Influences on Motivation and Learning. Continuing the legacy of his mentor, Martin Maehr, his mission was to invite educators and researchers to seriously consider in their practices and research the fundamental bearing that sociocultural factors and processes have on student academic functioning and outcomes. Aptly, Dennis affectionately dedicated the 1st volume of his book



series (McInerney & Van Etten, 2001) to Martin Maehr, whom he saw as "a scholar and educator who emphasized the importance of the sociocultural dimensions of motivation and learning in mainstream education long before it was fashionable, and who has been a guiding light to [him] throughout his professional career" (p. v).

To date, 14 volumes have been published under the book series. While all the volumes have been well received and commonly found in university libraries around the globe, of particular importance are the 4th (McInerney & Van Etten, 2004) and 12th (Liem & McInerney, 2018) volumes to which internationally renowned motivation and learning scholars were invited to contribute by asking them to re-examine their theoretical-conceptual work from a sociocultural lens. To this end, these scholars were 'challenged' to critically address the key question that represented Dennis' lifelong scholarly interest, "How do sociocultural factors influence student motivation and learning?" in relation to the theories or constructs of their respective expertise.

We are fortunate that Dennis positively responded to the early call Martin Maehr (1974) made to bring sociocultural dimensions into research and discourses on academic motivation and learning. Dennis dedicated a large portion of his professional life to the call so effectively, that it might not be a coincidence that *sociocultural flavors* have permeated and taken an important place in recent models of academic motivation (e.g., Eccles & Wigfield, 2020; Wong & Liem, 2022) and learning engagement (e.g., Skinner et al., 2022; Wang et al., 2020). Epitomizing a person with a strong, authentic self, Dennis' keen and relentless pursuit of his passion for advancing understanding of the role that culture plays in student psychology was autonomously driven by who he was as a person. He loved life and was true to himself. As Dennis responded to Marty's call decades ago and throughout his career, it is time for us, who dearly call Dennis a mentor, to continue his legacies while cherishing our loving memories of him.

Friend, Colleague, and Self-Concept

Herbert W. Marsh

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My path with Dennis had intertwined for nearly 40 years, starting from when he was a PhD student at The University of Sydney where I was an academic, and I moved to the University of Western Sydney. Dennis was a wonderful colleague. Professionally, I could always count on Dennis to provide an alternative perspective when I needed it. However, my fondest memories are of the many social occasions we shared. Dennis loved life, and it was great fun to be with him. His sense of humor has always brought a smile to my face.

Dennis was widely known for his contributions to his organizational and leadership roles in editing monographs in educational psychology. As Director of the International Self-concept Enhancement and Learning Facilitation (SELF) Research Center, I acknowledge Dennis' contributions to co-editing multiple volumes in the



SELF monograph series, his assistance in organizing SELF conferences, and his wise advice on the leadership of SELF. Dennis' significant contribution to Educational Psychology was his highly acclaimed textbook, *Educational Psychology: Constructing Learning* (McInerney, 2014). Dennis drew on Educational Psychology's major theories and research programs through the six editions of this popular textbook. In his textbook, Dennis highlighted his own contributions concerning motivation and motivating students but also effectively integrated the significant contributions of leaders in our field.

I worked with Dennis to provide a comprehensive overview of my self-concept research program for presentation in his textbook. We depicted my multidimensional, hierarchical model of self-concept, its measurement, and its hierarchical structure. This model included self-esteem at the apex, second-order academic and non-academic factors, and specific factors reflecting each of these second-order constructs (Academic: math, verbal, and other academic subjects; Non-academic: physical, social, appearance, emotional, family). We highlighted the intuitive role of frames-of-reference in forming self-concept—social, temporal, and dimensional comparison processes. The most well-known are *social comparison processes* and the big-fish-little-pond effect, which demonstrate the negative impact of attending high-ability schools on academic self-concept. This result is one of educational psychology's most universal findings, replicated in over 80 countries. The big-fish-little-pond effect also has important implications for parental selection of schools their children attend.

Furthermore, the effect has policy implications for how governments structure school systems, coupled with findings that countries with more stratified school systems have lower levels of achievement. Demonstrating temporal comparison processes, academic self-concept, and academic achievement are reciprocally related, each contributing to the other over time. These have important implications for teachers who should strive to support academic achievement, positive academic self-beliefs, and the integration of the two. Gains in achievement are unlikely to be maintained over time unless there are gains in academic self-beliefs. Finally, dimensional comparison processes are depicted in the internal/external frame-of-reference model. Thus, in forming their self-concept in one academic domain, students compare their accomplishments in that domain with those in other domains. The model explains why math and verbal self-concepts are nearly uncorrelated (i.e., students think of themselves as "math" or "verbal" persons) even though math and verbal achievement are substantially correlated. The model also explains why high-ability students have such low self-concepts in their (relatively) weakest school subject and low-ability students have such high self-concepts in their (relatively) best school subject. Integrating these three models, all three comparison processes operate simultaneously in forming academic self-concepts.

My earliest academic collaboration with Dennis was developing and testing the Employee Motivation and Attributes Profile (EMAP) instrument (Marsh & McInerney, 1991) for use in employee selection. Drawing on diverse theoretical work—including Dennis' early motivation research—we worked extensively with BHP staff to incorporate diverse motivational attributes. The result was a 25-factor model in which each of the 25 factors was reliably measured and identified in a factor analysis



of all 25 constructs. Our early work contributed to and benefited from Dennis' development of the Inventory of School Motivation (ISM) instrument (McInerney, 1991; McInerney et al., 1997), which was the basis of much of his research and our ongoing collaboration. In much of this research, my contributions were mainly statistical in validating the ISM instrument's factor structure and construct validity (e.g., McInerney et al., 2003a, b). Thus, for example, we applied evolving approaches to higher-order factor analysis to validate a hierarchical model of 10 specific goal orientation constructs (effort, task, a sense of purpose, praise, competition, power, token, social concern, social dependence, and affiliation) and global measures of mastery, performance, and social motivation (e.g., McInerney et al., 2003a, b).

In collaboration with our colleague Alex Morin, we also juxtaposed variable- and person-centered approaches to psychological well-being using our evolving work on exploratory structural equation modeling (Morin et al., 2017) and new statistical approaches to profile analysis of occupational commitment (Morin et al., 2015). We substantively juxtaposed Dennis' motivational research with my substantive self-concept research (e.g., McInerney et al., 2003a, b). I will greatly miss him, as we all will.

A Champion of Indigenous Peoples

Rhonda G. Craven

Institute for Positive Psychology and Education, Australian Catholic University

Dennis was a trailblazer in motivation theory and research. He saw motivation as a key facilitator of educational outcomes and fundamental to getting the most out of school and life. However, one of Dennis' greatest triumphs was being one of, if not the first, non-Indigenous Australian motivation researchers to champion the rights, recognition, and self-determination of Indigenous peoples in Australia and all over the world. He led advances in Indigenous motivation research in a global research landscape that did not reward non-Indigenous researchers for this. Dennis told me that pursuing Indigenous motivation research was career suicide. He could have had an easier and more prosperous career if he had pursued motivation research with non-Indigenous populations. He also said that he did not care what others thought, as he gladly chose to pursue motivation research with Indigenous peoples because enabling the full potential of Indigenous peoples was a critical social justice and educational issue of our time.

During his distinguished career, Dennis emphasized that Indigenous children had the same capability to achieve excellent educational outcomes as their non-Indigenous peers. He wanted to break down stereotypes about Indigenous children that were often based on racist assumptions about Indigenous learning and motivation rather than recognizing capability. Dennis strove to demonstrate that Indigenous children were just as motivated and capable as their non-Indigenous peers to do well at school (e.g., McInerney, 1990). He conducted decades of a cross-cultural motivational research program that is applauded as a rare, sustained



research program of empirical research investigating the within-construct structure of motivation, its measurement using psychometrically sound measures, and the relation of motivational constructs to educational outcomes for Indigenous and non-Indigenous students (e.g., McInerney, 2003, 2008a).

One of Dennis' significant contributions was the development of the Inventory of School Motivation (ISM), which was designed to capture a more complex array of motivational factors than previous measures (e.g., McInerney et al., 1998a, b). He found little difference between Indigenous and non-Indigenous students' motivational profiles on multiple domains of achievement goal dimensions, achievement goal measures, sense-of-self measures, and academic self-concept measures. For example, McInerney (2003) examined the motivation and academic self-concept of urban and rural Indigenous and non-Indigenous school students and found there were no statistically significant differences in task, effort, social concern, mastery general, global motivation, a sense of purpose for education, sense of reliance in learning, positive self-esteem, English self-concept, or math self-concept. He also found that critical predictors of a range of achievement outcomes were shared by Indigenous and non-Indigenous groups, including effort, a sense of purpose, mastery general, global motivation, English self-concept, and general self-concept, and there were no significant differences between the groups on these dimensions. On these results, Dennis concluded, "These results tell a positive story regarding the capacity of Aboriginal children to do well at school given the right sort of motivational environment" (McInerney, 2003, p. 343).

The relationship between motivation and schooling outcomes was crucial for Dennis. For instance, McInerney (2008a, b) found that Indigenous Australian, Anglo-Australian, Asian Australian, and Lebanese Australian students all held positive achievement goal motivation constructs, and mastery orientations were positively associated with schooling outcomes for all cultural groups. His multiple studies over the last few decades with Indigenous Australians led him to conclude that students from remote Indigenous communities have similar motivational goals in education to non-Indigenous students (e.g., McInerney et al., 1998a, b; McInerney, 2008a).

Another research area in which Dennis focused was on the roles of self-concept and achievement goals in facilitating self-regulation and deep learning strategies for Indigenous Australian and Native American high school students. He found that self-concept positively related to mastery goals, deep learning, and educational outcomes for both groups, and the strong relations between self-concept and self-regulated learning mediated through mastery (McInerney & King, 2013). This demonstrated the salience of self-concept and motivation for predicting self-regulated learning. This led McInerney and King (2013) to conclude for Indigenous students: "academic self-concept and mastery goals are critical psychological ingredients that can contribute to optimal learning. As indicated by our results, the strong positive relations between self-concept and positive learning outcomes suggest that educators who are interested in facilitating mastery goal adoption among Indigenous students can draw from the rich literature on improving students' academic self-concepts" (p. 106).



Dennis' findings imply that much of education might be optimized for Indigenous students by improving the aspects of motivation that are strong predictors of achievement (e.g., McInerney, 2003; McInerney & King, 2013). He demonstrated that "academic self-concept and mastery goals are critical psychological ingredients that can contribute to optimal learning. Educators can design appropriate intervention programs to target these crucial variables in order to optimize learning gains" (McInerney & King, 2013, p. 103). Hence, he championed that teachers could do much to optimize the full potential of Indigenous children and successfully dispelled unfounded stereotypes based on high-quality empirical research demonstrating the commonality of humanity's desire to strive and get the most out of life. Dennis dedicated his life to proving that one person can make a real difference in enriching Indigenous lives and communities.

Personal Investment: Culture, Self, Meanings, and Practical Impact

Avi Kaplan

Temple University

Dennis' impact on me can be attributed to his character and his scholarship. Of course, like the rest of us, his scholarship reflects aspects of his character. But he had characteristics not so apparent in his published work that made our interactions delightful and memorable: an inquisitive sense of humor, subtle self-mockery of his scholarly stature, and a certain consciousness of scholarly prominence tempered by living "down under." For me, he was a role model for taking the work seriously, but oneself, not too much. This also manifested in his constructive poking at the scholarly community's self-importance, lest we lose sight of the real-world and practical goals of our scholarship.

An example is a session he organized for the 2016 International Conference on Motivation, which he titled "Motivation-all show but no blow: A critical examination of the evidence for the substantive connection between measured motivation and academic performance" (McInerney, 2016). The provocative title reflects Dennis' playfully serious desire to keep the motivational scholarly community on its toes and mindful of unexamined conceptual, methodological, and practical assumptions. He intended to have some serious fun, as indicated by his invitation to me to join that session (and what it meant about his opinion of me...): "I hope you can participate as I want the session to be a bit 'fiery'!"

Beginning with early personal experiences and throughout decades of research, Dennis' poking at widespread scholarly assumptions reflected his continuing dissatisfaction with reductionist motivational perspectives that harbored ethnocentric assumptions. As a young person, he was dismayed to find prevalent educational psychological theories inadequate for informing the design of motivating educational experiences for Aboriginal students in Australia. That led Dennis to a scholarly search for a theory that accounted for the cultural nature of motivation and learning. He found it in Marty Maehr's Personal Investment Theory (PIT) (Maehr &



Braskamp, 1986; Maehr & McInerney, 2004a, b). Unlike many other prominent motivational theories of the day, PIT was based on explicit assumptions regarding the role of culture in the social-cognitive meanings that give rise to motivation.

The theory also accounted for the significant role of affect in motivation; and furthermore, it conceptualized cultural meaning-making and affect as a complex phenomenon: an interplay between people's perceptions of the goals of task engagement, their self-perceptions, and their construal of available and unavailable actions in the context (what Dennis named "Facilitating Conditions"). In the mid-1980s, PIT had been applied mostly to adults in work settings. For his doctoral dissertation (McInerney, 1988, 1991), Dennis translated PIT to students' school motivation and developed a questionnaire to measure and study the motivation of Aboriginal students in Australian urban schools. That study was the basis for the Inventory of School Motivation (ISM; McInerney & Sinclair, 1991), a multi-scale instrument that measures several PIT concepts, including a sense of purpose in schooling, positive academic self-concept, negative academic self-concept, and self-reliance in performing school tasks.

Later, Dennis created another questionnaire for the other component of PIT not captured by the ISM—the Facilitating Conditions Questionnaire (McInerney et al., 2005). In a series of studies conducted in collaboration with aboriginal community leaders around the world, Dennis combined state-of-the-art quantitative analyses on the cross-cultural psychometric properties of these instruments with rigorous qualitative analyses (conducting mixed-methods research before it was popular) to study each of PIT's components and their joint effects on motivation and performance among students from cultural groups rarely studied, including Aboriginal and Torres Strait Islanders and immigrants in Australia, the Saami in Norway, Blacks in South Africa, students in Hong Kong and the Philippines, and different nations in the USA including the Navajo, Cheyenne, Arapaho, and Yavapai (e.g., McInerney, 2008a; McInerney et al., 1998a; McInerney et al., 2001).

Dennis' research provides critical insights into cross-cultural (etic) motivational principles and an in-depth understanding of culturally specific (emic) processes that reflect the socio-political circumstances of students from different cultural groups. Dennis' PIT research findings and poignant critique of motivation theory and methods will continue to be relevant to scholars and educators for decades to come (King & McInerney, 2014a). By his scholarship and character, I will remember Dennis using his self-description as an "old cheese"—sharp, tasty, testy, of high quality, and with a long shelf life.



Sociocultural Perspectives on Motivation and Learning

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Dennis was my *shifu* (师父). The closest English translation is *master*, but the direct translation would be *teacher* and *father*. Though Dennis was never officially my doctoral supervisor, he became my de-facto mentor after my primary supervisor, David Watkins, retired. Upon graduation, I worked for him as his research assistant, and we later became colleagues at The Education University of Hong Kong. Throughout my academic journey over the last decades, Dennis has been my beloved mentor and friend.

In noteworthy ways, Dennis' research on the intersection between cross-cultural and educational psychology was instrumental in shaping my academic journey (e.g., McInerney & Van Etten, 2001, 2004; McInerney et al., 1997). When I began my doctoral journey, I just wanted to replicate the prominent Western achievement motivation models in the Asian context despite the strong sense that the motivational landscape in Asia was very different from what I have read in our field's best journals. Dennis encouraged me to highlight the importance of the sociocultural perspective and his influence can be seen in my doctoral dissertation.

For my dissertation, I investigated the achievement motivation of Filipino students within a sociocultural framework. I focused on social goals, defined as striving to do well in school for the sake of others (Dowson & McInerney, 2001, 2003). Social goals were the most important for understanding Filipino students' motivation, engagement, and well-being. The predictive effects of social goals trumped the other more commonly examined achievement goals, such as mastery and performance goals. We published empirical papers documenting the importance of social goals in Asian settings (King et al., 2012).

These explorations on social goals eventually led to one of our most exciting projects, which was a special issue in *the British Journal of Educational Psychology*. We invited other researchers to also revisit their research from a sociocultural perspective (King & McInerney, 2016). These empirical works led to two review papers on the importance of adopting the sociocultural perspective in motivation research. Our first review paper appeared in *Educational Psychologist* and highlighted the importance of looking at culturally universal or etic and culturally specific or emic approaches in motivation research. We documented instances wherein the dominant Western theorizing did not hold in other parts of the world and challenged researchers to look beyond their cultural frameworks.

The second paper was published in *Educational Psychology Review* (King et al., 2018a, b). We content analyzed papers from top educational psychology journals to see whether and how they took cultural factors into account. We found that many of the papers in the field's top journals did not explicitly consider



culture. Researchers also fell prey to two common types of errors. The first was the *cultural attribution error*, which pertains to attributing any observed difference to culture even if culture is not the relevant factor. The second was the *cultural blind spot error*, which pertains to the failure to see how culture influences psychoeducational processes and outcomes. We proposed seven key recommendations to avoid these traps to make educational psychology more culturally imaginative. These recommendations included taking measurement equivalence into account, using other methods of data collection aside from self-reports, considering the multilevel structure of cross-cultural data, identifying and unpacking sources of cross-cultural variability, including cross-national samples, broadening the forms of culture (e.g., religion, region, socioeconomic context) examined, and complementing etic with emic approaches.

When Dennis passed away, we were revising a paper on prosocial motivation, defined as students' desire to help others and contribute to something bigger than themselves (King et al., 2022). It was fitting that this was the last paper we were working on, for I felt that Dennis did not just research this topic but also lived it. He had a generous spirit, always ready to share his time, resources, and friendship with others. I have seen many students and colleagues grow because of him. His presence continues to live on in the people he has mentored, who now pass on his legacy to the next generation of researchers.

Cultural Insights Into Self-Efficacy

Dale H. Schunk & Maria K. DiBenedetto

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We celebrate Dennis' many contributions to educational psychology. Dennis was an eminent researcher and scholar and had a strong international presence in the field of educational psychology. His lasting contribution was to underscore the importance of culture in research and practice. Although we often write about educational psychology topics as if their principles were universal, Dennis showed that much research had been conducted in Western cultures and that principles cannot be simply generalized without determining whether they accurately captured cultural variables (McInerney & King, 2018). This insight forced us to understand how cultural variables shaped the operation of variables important for learning and motivation.

A significant emphasis in Dennis' research was distinguishing between different kinds of cultural variables (McInerney & King, 2018). He and his colleagues argued for examining the *emic* (culture-specific) and *etic* (universal) aspects when investigating the role of culture in learning and motivation. For example, although goal setting may be universal, the types of goals set and how they are set are undoubtedly subject to cultural influences. In examining etic and emic aspects, we can determine whether Western principles and practices are culturally appropriate. We should be eternally grateful to Dennis and his colleagues for forcing us to attend to this distinction.



Dennis' research and writings had great relevance to *self-efficacy*, or one's perceived capabilities to learn or perform actions at designated levels (Bandura, 1997). Like goal setting, self-efficacy seems to represent a universal construct but is affected by cultural standards. Although there are exceptions, individuals from Western cultures tend to be more optimistic in their self-efficacy judgments, whereas those from Eastern cultures are more modest (DiBenedetto & Schunk, 2018). The net result is that persons from Eastern cultures tend to show better agreement between self-efficacy judgments and actual performances. Such congruence is essential. Individuals who overestimate what they can do may attempt tasks beyond their means, leading to failures and adverse effects on self-efficacy and motivation. Judging self-efficacy lower than actual capabilities may preclude individuals from attempting tasks and negatively affect skill development.

A cultural difference that has been widely explored is individualism and collectivism. Individualistic cultures stress independence and individual initiative, whereas collectivist cultures emphasize group identity and *we* consciousness (Klassen, 2004). The USA and Western European countries are high in individualism, whereas Asian cultures tend to be more collectivist. Research often shows that persons in collectivist cultures tend to judge self-efficacy lower (but better aligned with performances) than those in individualistic cultures, even when performances are equivalent (Klassen, 2004). This finding, which Dennis felt was not surprising, raises the issue of whether *collective self-efficacy* or the self-efficacy of what persons believe a group can accomplish may be a better predictor of subsequent performance than individual self-efficacy (Schunk & DiBenedetto, 2020).

Clearly, Dennis' writings and research have made the field more conscious of this need. Moreover, they have implications for teaching and learning. Classrooms have students from many cultural backgrounds. Although self-efficacy may be universal, the challenge for educators is to understand how students' and teachers' values, beliefs, and sociocultural experiences can affect self-efficacy. Researchers have not examined in depth the operation of cultural variables in self-efficacy. More cross-cultural studies are needed that examine culturally-specific influences on learning, motivation, and self-regulation.

Besides his professional and scientific contributions, Dennis took great interest in what others were working on and mentoring, especially new scholars. When asked, he would willingly provide his thoughts and feedback. Seeing him at professional conferences such as AERA and catching up on the news was a joy. He could carry on a conversation on diverse topics, and you always benefited from spending time with him. He practiced ways of enhancing others' feelings of self-efficacy. Many owe him a deep debt of gratitude that future generations will not be able to experience in person. Nevertheless, we will continue to benefit from his keen insights and multiple contributions to educational psychology.



The Intersections between Mentoring, Belonging, and Motivation

Kelly-Ann Allen

Monash University

Dennis was an eminent scholar and much-respected mentor who was fascinated by the research areas of belonging, school belonging, and the intersections with learning and motivation. This was the topic of his keynote in 2013 at a conference hosted by The International Academic Forum (IAFOR) in Japan. A multidisciplinary, international conference showcased his work and thinking at the time and emphasized the potential for belonging, and specifically school belonging, to be a powerful factor in student outcomes, especially as applied to schools and classrooms.

We would meet again that year in Hawaii at the American Psychological Association Convention, where Dennis was assigned to be my mentor through a doctoral training seminar hosted by Division 15 (Educational Psychology). We worked together on the Committee of International Affairs (D15), which he chaired, further signifying his global reputation. Over countless connections, we came to collaborate on several projects, one of the most significant being the development of an integrative framework for understanding, addressing, and fostering belonging (Allen et al., 2021). Through a research synthesis, we found varying perspectives and theoretical positions on belonging that highlighted the dynamic, fluid, and temporal nature of our sense of belonging (Allen et al., 2021). We identified four interrelated components: competencies for belonging, or the possession of skills and abilities necessary to connect; opportunities to belong, the groups, people, places, times, and spaces to enable belonging to occur; motivations to belong, the need or desire to belong and; perceptions of belonging which steer how a person subjectively understands and interprets their experiences. The conceptual clarity we attempted to create around belonging hoped to create understanding between the disparate disciplines, develop a more robust understanding of existing literature, identify gaps in belonging research and practice, and probe how we might best measure belonging. In this work with Dennis, we could agitate towards increasing belonging on both an individual and a collective level. This was one of the many indelible contributions to belonging research Dennis has made.

Dennis also presented pioneering and nuanced understandings of the relationship between connectedness and social media. Staying in touch via social media may be an opportunity for social connectedness, fulfilling adolescents' need to belong (Allen et al., 2014), especially when offline opportunities are limited (Ryan et al., 2017). However, at the same time, he could see that the positive effects of social media might be more apparent for those who are uncomfortable in face-to-face interactions (Allen et al., 2014). Those who experience marginalization in their daily lives might find a community online (e.g., in a Facebook group for those students with attention-deficit/hyperactivity disorder; Gajaria



et al., 2011). However, such technologies can also result in experiences of cyberostracism (D'Amato et al., 2012), or being ignored or excluded online, a threat to belonging. Rather than solely praising or condemning the effects of social networking sites, Dennis contributed to teasing out the paradox that social media may both enhance social connectedness and belonging while simultaneously increasing risks of potential adverse outcomes (Allen et al., 2014). Dennis' offerings have helped to shape a balanced understanding of social media, thus the positive and negative potentialities (Ryan et al., 2017). In a world rapidly reshaped due to our dependence on social media for connection, Dennis has helped pave the way for future research on belonging online.

Outside of his work on belonging in a general sense, Dennis unfailingly centered the importance of school belonging on various outcomes. He was aware of the impacts that school belonging has on goals and school motivation (Dowson et al., 2006). Meanwhile, he believed in the indispensability of facilitating conditions like peer, parent, and teacher support, which are central to producing belonging (McInerney, 2005). At the heart of his work was a humanistic commitment to meaningful and impactful research.

Having an academic mentor is a special type of privilege, and the privilege I received from having Dennis as mine was immense. His reputation in educational psychology always preceded him, and Dennis was immensely respected, admired, and regarded in the fields of education and educational psychology. Dennis will be missed by many.

Cultivating Students' and Teachers' Well-Being

Jesus Alfonso D. Datu

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My eight years of scholarly, academic, and personal interactions with Dennis were meaningful, enriching, and enjoyable. I appreciate every moment he genuinely mentored me before applying for my postgraduate study and until my recent scholarly endeavors as an early career researcher. I remember how he inspired me to pursue projects that could potentially innovate motivation theories and optimal psychological functioning in diverse cultural contexts. More importantly, he always reminded me about the importance of living life to the fullest by striking an optimal balance between serious work and happiness-increasing adventures. Given how Dennis placed a premium on initiatives that facilitate psychological well-being, it is not surprising that he also contributed to advancing our knowledge of psychological resources that bolster students' and teachers' well-being outcomes.

Due to Dennis' experience working as a teacher in Australian school contexts, and we know how highly demanding a profession teaching is (Gonzalez et al., 2017; McDonough & Lemon, 2022), he and his collaborators have recognized the farreaching occupational benefits not only of pinpointing the most optimal well-being profiles (Morin et al., 2015, 2017) but also identifying antecedents of psychological



well-being in teachers. For example, his previous research (McInerney et al., 2015b) has demonstrated that teachers with a stronger attachment to organizations and the teaching profession are less likely to quit their jobs. In addition, teachers with desirable occupational attributes such as leadership, goal orientation, and interpersonal competencies tend to experience greater psychological well-being (McInerney et al., 2018).

Dennis' research program on teachers' well-being coheres with investigations that emphasize the need to pinpoint adaptive profiles of psychological resources (Aulen et al., 2021; Lee et al., in press) and correlates of teachers' well-being outcomes such as growth mindset in specific domains like teaching ability (Nalipay et al., 2019) and emotions (Nalipay et al., 2021). However, whereas past studies focused on the role of intrapersonal factors such as character strengths (Chan, 2009) in subjective well-being among pre-and in-service teachers in Hong Kong, Dennis and his collaborators initially contributed to the extant literature by assessing how demographic, intrapersonal (e.g., goal-orientation), interpersonal (e.g., interpersonal skills), and organizational (e.g., commitment to an organization) factors track optimal psychological functioning in pre-and in-service teachers in this cultural context. His findings reveal the importance of adopting a relatively holistic lens in understanding catalysts of teachers' psychological wellness in non-Western cultural contexts.

Beyond looking at the antecedents of optimal psychological functioning in preand in-service teachers, his research findings have critical implications for designing more holistic well-being intervention programs for teaching professionals. For instance, previous studies adopted gratitude-based (Chan, 2010), mindfulness (Klingbeil & Renshaw, 2018), and positive psychotherapy intervention that promotes forgiveness, gratitude, positive emotions, relationships, and contentment (Taghvaienia & Alamdari, 2020). Recent investigations have shown that a technologically facilitated multi-component psychological intervention with foci on cultivating positivity, relationships, outcomes, strengths, purpose, engagement, and resilience can promote well-being in pre- and in-service teachers in Hong Kong during the COVID-19 pandemic crisis (Datu et al., 2022a, b). Indeed, his empirical contributions align with recent scholarly direction that advocates for strengthening interventions to bolster social-emotional learning and well-being in pre-and in-service teachers (Corcoran & O'Flaherty, 2002).

Through his empirical studies, Dennis underscored the significance of students' emotional and psychological well-being in school contexts. Specifically, he and his collaborators explored the psychological payoffs linked to positive dispositions (e.g., grit; Datu et al., 2021) and emotional states (King et al., 2015) among high school and undergraduate students, especially in contexts that are not well-studied in the positive psychology literature. His research has also revealed how students' lack of desire to actively engage in school activities (a.k.a. work avoidance; King & McInerney, 2014b) can thwart their well-being outcomes.

Even during the COVID-19 pandemic, his research has revealed critical insights into how internet-based gratitude and kindness interventions can boost positive emotions in Filipino undergraduate students (Datu et al., 2022c). Notably, he has examined psychological strengths and interventions that promote psychological well-being (Datu et al., 2022c; King et al., 2015). He also advocated for conceptualizing



culturally sensitive models of positive psychological constructs (Datu & McInerney, 2017; Datu et al., 2021) to improve their generalizability in countries that are considered as non-WEIRD (Western, educated, industrialized, prosperous, and democratic; Henrich et al., 2010). Indeed, Dennis' empirical works carry valuable implications for enriching the science of students' character development and well-being, especially in non-Western and collectivist cultural settings.

Future Time Perspective and Academic Delay of Gratification

Héfer Bembenutty

Queens College of the City University of New York

Dennis was an esteemed teacher and an inspiring scientist. Dennis was a pioneering and visionary frontiersperson whose work called for the scientific community to conduct culturally sensitive theorizing and research, especially for learners from culturally disadvantaged conditions. His unique approach to understanding culture and self-regulation is closely connected to his view on future time perspective and its relationship to motivation. While he believed that teaching self-regulatory skills can be universally beneficial for students across cultures (McInerney & King, 2018), he was wise to be mindful that "a sense of future may be a culture bound construct" (McInerney, 2004, p. 142). This is to say that theorizing and research on future time perspective, motivation, and critical educational outcomes (e.g., self-regulatory learning, academic aspirations) must carefully consider the role that sociocultural influences play in these factors.

Through his longitudinal research with Native American and Anglo American secondary school students—spanning no less than five years—Dennis revealed the close connection between the students' motivational beliefs and how they saw their future. Students who did not see connections between their present education and future goals tended to be less motivated than those who did since they did not make the connection between what they were doing in school and their future aspirations. Dennis concluded that having a future time perspective and the extent to which it motivates what learners do in the present time largely depends on the culture of the learners. When schooling matches the values prevailing in the learner's cultural background, having a future time perspective potently activates current planning (McInerney & McInerney, 2000; McInerney et al., 1998a, b).

One of Dennis' significant contributions was his insights into the importance of cultural factors in future time perspectives created awareness about what needed to be done for the education of Indigenous Australian students to be more effective. He dedicated time and resources to advocating for these students and uncovering the different motivational values and beliefs that heighten and facilitate their paths to success. He did not see cultural differences as limitations and deficits that cannot be nurtured. Dennis strongly believed that Indigenous learners are as competent as their non-Indigenous peers and could benefit from learning in their Indigenous schools and communities when provided with culturally sensitive and attentive pedagogies



and curricula (Bembenutty, 2015; McInerney et al., 1997). He rightly pointed academic delay of gratification, out that "persistent stereotypes about Indigenous minorities' learning problems are based on erroneous beliefs about Indigenous children's capacity, interest and cultural differences" (Bembenutty, 2015, p. 229).

When reviewing research on academic delay of gratification, (Bembenutty, 2016; 2022; Bembenutty & Karabenick, 2004) Dennis asked, "Do future time oriented individuals have a greater capacity to regulate their behavior and delay gratification to obtain future goals than nonfuture time oriented individuals?" (McInerney, 2004, p. 146). He questioned the degree to which individuals are willing and could delay the satisfaction of short-term needs for the sake of attaining their long-term goals. He inquired whether learners could delay immediate gratification to pursue rewards or credits in the future. Dennis answered his question by stating that "this process is dependent on students valuing and believing they can achieve the delayed goal above the satisfaction of a more immediate alternative" (McInerney, 2004, p. 146). Indeed, learners with a future time perspective engage in self-regulatory activities such as setting short- and long-term goals and perceive greater instrumentality in engaging in those activities. As a scholar with consistent inquisitive questions, Dennis asked about the etiology of delay of gratification, the factors influencing its development, and the potential causal relationship between self-regulation and delay of gratification. Dennis never stopped asking curious questions.

Influenced by Dennis' research work and his stimulating questions, I began the journey of 'culturalizing' delay-of-gratification research and discussions a decade ago (Bembenutty & Karabenick, 2013). He motivated me to consider the role that psychological, sociocultural, and situational factors play in students' capacity to delay their gratifications and make delay-of-gratification choices. He reminded me to consider the assessment of individual differences while considering group and cultural comparisons on delay of gratification. Indeed, individuals' readiness to delay gratification varies across cultures (McInerney, 2004). For instance, Ganotice and King's (2014) research supports the cross-cultural applicability of the Filipino version of the academic delay of gratification assessment among Filipino students. In a consistent vein, Datu et al.'s (2020) study revealed that willingness to delay gratification for future distant benefits was associated with educational benefits of flourishing among Filipino students. Indeed, besides me, other scholars whose lives were impacted by Dennis have provided answers to his queries too. He was a trailblazer in many ways. We will greatly miss you, Dennis.

Conclusion

Taken together, the reflections of Dennis' colleagues, friends, and mentees emphasize an entire lifelong career of influence and impact that will transcend future generations of research, given the gravity of his scholarly contributions. Dennis will be missed by the many people who worked and associated with him, but the greatest loss will be felt in the fields of educational and developmental psychology. On his legacy, Dennis once hoped, "...if I happen to 'pop the cork' prematurely, I am sure former students and colleagues will have a very rich picture of me..." (Bembenutty,



2015, p. 228). This tribute represents all those worldwide whose lives were impacted by Dennis' scholarly work, teaching, friendship, mentoring, and passion for "culture and achievement motivation" research. We miss Dennis, but a vibrant picture of him as one who broke new ground with innovative research on culture and achievement motivation will continue to inspire us and many others to pursue this line of research.

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