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### MATHEMATICS TEACHING AND THE LARGER PURPOSE OF SCHOOLING: DEVELOPING 'MOVING IDEAS'

K-12 teaching of mathematics should be embedded into a vision of a larger purpose of schooling. Any vision of a larger purpose of schooling makes assumptions about the human condition. Discussions about schooling, curriculum, (mathematics) teaching, etc. are framed by such assumptions. One way of conceptualizing (part of) the human condition is as follows (see Martin et al., 2003). Humans are born with the developmental potential for sophisticated memory (intelligence) and imagination. The emerging and developing capability to reflect upon the actual and possible (using memory and imagination) allows the developing child to engage in more and more sophisticated acts of selecting and choosing: *Human agency* emerges, which manifests itself in the practiced capability of making choices in self-determination and, thus, control instinct, impulse and even habituation to some degree. With human agency an existential concern for how to live one's life emerges. Since this *existential concern* is so central to human life, general education should address this emerging existential concern. Then, the most general purpose of general education is to help students with their emerging existential concern of how to live their life. One way of framing the problem of addressing this general educational purpose is through Dewey's notion of 'moving ideas': "The business of the educator – whether parent or teacher – is to see to it that the greatest possible number of ideas acquired by children and youth are acquired in such a vital way that they become *moving* ideas, motive-forces in the guidance of conduct. This demand and this opportunity make the moral purpose universal and dominant in all instruction – whatsoever the topic." (1905/1975, p. 2) Ideas like 'justice', 'sustainable living', 'democracy', 'citizenship', 'caring', 'friendship', 'education', 'beauty', etc. could be considered worthwhile becoming moving ideas (motive-forces in the guidance of conduct) in general education and, thus, address students' developing existential concern about how to live their life. For the teaching of mathematics – embedded within this larger purpose of schooling – two questions arise: (1) How can the teaching of mathematics contribute to the development of non-mathematics-specific moving ideas (see examples above), and (2) How can mathematical ideas become moving ideas for students? The current traditions and practices of teaching and learning school mathematics in North America do not have either question in focus.

Here are some approaches for addressing each question. To (1): (a) through a particular type of engagement with mathematics and mathematics learning in the classroom; e. g., politicizing of the mathematics classroom (Noddings, 1993), mathematics education as part of citizenship education (Simmt, 2001); (b) doing and studying mathematics to give purpose and

meaning to one's life; e.g., mathematics as a cultural product like literature is seen, doing mathematics as recreational activity. To (2): (a) the 'mathematisation' of one's life-world (Wheeler, 1975); (b) mathematics as a tool for engagement with the world, e.g., the use and misuse of statistics.

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