

Gardner Meets *Research MI* Readers

Howard Gardner met Rex Li, co-editor of *Research MI*, in the 1990s and they have been friends. Gardner has recently read *Research MI* (Vol. 1 and Vol. 2) with great enthusiasm. He endorsed the journal for its “spirit of MI” and hoped that “the publication thrives.”

Prof. Gardner has responded positively to Prof. Li’s invitation to address *Research MI* readers. Below are questions he answered in August 2021 and he has kindly given consent to its publication.

(1) Synthesizing Mind

Li: You proposed the idea of the synthesizing mind in your *Five Minds of the Future* (2008), and your intellectual memoir is entitled *A Synthesizing Mind* (2020). You have proposed 8 kinds of synthesis and “4 loosely ordered components” (2008, pp. 47-51). In recent years, have you developed your theory of synthesis further? Do you think the latest computers with AI, big-data and “deep learning” functions can work with humans in the direction of synthesis?

Gardner: I would never have anticipated this, but since I published my memoir, I have become obsessed with synthesizing. Like the proverbial cobbler who only sees shoes and feet, I am finding examples of synthesis every where—I’ve written a score of blogs on the topic and have dozens more drafted in my mind.

Why? Because I think synthesizing is a distinct human capacity but one that is very difficult to simulate in a laboratory, the way psychologists like to study cognitive phenomena. And so, while we admire great synthesizers like Charles Darwin or Leonardo da Vinci, we don’t really find it easy to characterize what they do and how they do it. I hope to make synthesizing more visible and more salient; to help teachers nurture synthesizing capacities in their students; and to help all of us become more competent synthesizers.

I don’t think that, on their own, AI programs can define synthesizing goals or approaches—that’s a human capacity, at least so far. But once one has an area that one wants to synthesize, and a goal, an end product in mind, computational tools can be valuable, indeed invaluable. I am sure that the great synthesizers of the past—in many media—would have



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made exemplary use of computational tools. But in the end, value judgments are involved—and I am not ready to transfer such judgments to an algorithm.

(2) Your Forthcoming Book

Li: You will be publishing another book, *The Real World of College*, with Wendy Fischman in 2022. It appears your interest has shifted from K-12 to collegiate education. Is there any reason for this shift? Would you give a brief account of your new book?

Gardner: Wendy and I have worked together on the study and nurturing of good work since 1995! We found, to our disappointment, that many (if not most) talented young people in the US admired good work—work that is excellent, engaging, and carried out in an ethical way—but too many of them said that “good work” was for LATER—ONLY AFTER they have achieved fame and fortune. And so, starting a dozen years ago, Wendy, I and colleagues began to work with students at various local colleges, trying to help them recognize ethical dilemmas at work, and giving them the tools to approach them sensitively and sensibly.

At the same time, we noted that American colleges and universities were undergoing intense scrutiny and receiving

much criticism, as well as numerous recommendations on how to improve their condition. But these accounts lacked convincing data. And so, for essentially a decade, we and our colleagues conducted in-depth studies of students—and seven other constituencies—at 10 disparate colleges and universities around the States. Our findings—many of which are quite surprising—are detailed in our new book. For a preview, please click the link (<https://www.therealworldofcollege.com/>).



(3) Project Zero (PZ)

Li: For PZ, you have spent and lived your whole academic life of 54 years through it. What are some of the latest projects in PZ in the last decade? How would it be sustained for another 50 years, or even longer?

Gardner: I am fortunate to have been a founding member of PZ, and was the co-director of PZ for over half that time—I am still the Senior Director, but that will end soon. I am very proud of Project Zero—a “soft money” (no endowment) research group at Harvard which develops ideas in education and then “gives them a push” in the right direction. We don’t ourselves run schools, businesses, or museums, but we have worked with dozens of them all over the world, trying to help them to improve their practices, and to document how they are doing.

As with *The Real World of College* (cited above), it’s best to visit the PZ website (pz.harvard.edu). We have shifted from an initial focus on the arts (and beauty), to dealing with the whole spectrum of disciplines, as well as interdisciplinary work; to working primarily in the US, to working around the world; to greater focus on the educational possibilities and perils of the Internet, and social media; and, more recently, to a concern with democracy, citizenship, professions and their organizations, and truth—issues which I know are being examined by sensitive and sensible persons everywhere.



(4) Good Work Projects

Li: You started from psychology (how do children learn) and slowly moved to ethics and sociology (what is good work). Would you briefly describe your work with Katie Davis on *The App Generation* (2013)? What are some of the more recent good work projects?

Gardner: In 2005, the Chicago-based MacArthur Foundation announced that it was investing young people and the “new media.” I asked the president whether the Foundation was considering how ethical and moral senses were affected by the Internet. Realizing that this was an important and under-investigated topic, Katie David, Carrie James, Emily

Weinstein received support from the Foundation and we began a deep investigation of youth and participatory politics (see their work at pz.harvard.edu).



As part of that project, Katie and I studied many young people as well as adults who worked with young people. We learned that the youth’s senses of identity, intimacy, and creativity were affected by these media, sometimes positively, sometimes destructively. Because so many young people are guided by the apps on their mobile devices, we dubbed them “the app generation.” And we made an important distinction between being “app enabled”—where apps open up your mind to new possibilities—and being “app-dependent” where your thinking and your action are limited or even dictated by what happens to be visible at the time on your mobile device.

If your child seems healthy, engaged, and doing well in school, please don't do anything--just cheer him or her on!

Needless to say, as educators (and parents, and grandparents), we seek to encourage app-enablement, and to discourage app-dependence. The pandemic has really tested young people’s abilities to go beyond dependence (<https://www.seattletimes.com/opinion/the-app-generation-meets-the-pandemic/>).



(5) Multiple Intelligences and Gifted Education

Li: How would you advise parents and teachers on their nurturance of children’s MI and giftedness?

Gardner: If your child seems healthy, engaged, and doing well in school, please don't do anything--just cheer him or her on!

If your child is having difficulties, of course it's useful to find out what is going well, what can need some support or a boost. Sometimes a child's gifts/intelligences are not well matched with current schooling options, and this places extra burdens on children and their teachers and parents. Finding a match between a child's gifts and the opportunities available for healthy growth and development is important, and "MI" theory can guide you down promising paths. There are many forms of giftedness and they are not necessarily the ones prized in school. . . or in the school yard.

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In Chinese societies, some people have mis-interpreted "MI theory" as an injunction to get good at all 8 intelligences. Most of us will not be Leonardo da Vinci—it's best to find one's areas of strength and build upon them. If you can help others with your areas of strength, they can help you in areas where you are not as 'intelligent'.

Also, breadth of interests is most important for young persons in the first decade of life—as one gets older, it is a better use of one's energy and resources to bolster your areas of strength. Of course, one can choose to focus on areas of weakness—I myself have done that—but you need to acknowledge that it may be more an uphill battle—which some of us enjoy—at least some of the time!

(6) Future World

Li: Since year 2000, you have talked much about globalisation and technological change. You have proposed a respectful and ethical mind for the future world of mutual understanding and cooperation. (We are all supporters of the vision of United Nations). Could you outline your vision of the future world?

Would you like to comment on Yuval N Harari's *Homo Deus: A Brief History of Tomorrow* (2017) and *21 lessons for the 21st Century* (2019)? He is much more pessimistic than you are. Here is a short quote from him: "The merger of infotech and biotech threatensthe core modern values of liberty and equality. Any solution to the technological challenge has to involve global cooperation. But nationalism, religion and culture divide humankind into hostile camps and make it very difficult to cooperate on a global level (2019, p. 99)."

Almost all of my work in the past 25 years has been toward the definition and promotion of good work-and good citizenship- [thegoodproject.org](https://www.thegoodproject.org)

Gardner: I am combining these two questions. For whatever reason, I incline toward pessimism and I could easily endorse Harari's sentiments. But it does not pay to live as a pessimist, one needs to try to be optimistic, to work toward a better world, and perhaps you will be able to nudge the world in the right direction. Almost all of my work in the past 25 years has been toward the definition and promotion of good work—and good citizenship ([thegoodproject.org](https://www.thegoodproject.org)). I am particularly interested in professions that have a sense of integrity at their best, and in institutions that over the long run have served the broader society.



I realize that quest is an uphill battle, at best, but it's one that I choose to engage in, even though the odds are not particularly favorable. This is not the occasion for a political discussion, but it's clear that contemporary China and contemporary Western society (say, Western Europe) have very different visions of what the world should be like and how to get there. But if we cannot combine forces on huge challenges—like climate change or pandemic—we will not have a world in which anyone will survive or want to live. And that's why I search for something akin to a world religion--though it need not include a deity.

Here are my recent thoughts on this crucial matter: <https://www.thegoodproject.org/good-blog/2020/11/30/a-religion-for-our-timenbsp-nbsp>



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What's New about Howard Gardner

As a professor emeritus, Howard has stopped teaching in Harvard. He is still actively involved in a number of research projects. Readers can google more from his Facebook, Twitter, and websites. In the second half of 2021:

August 2021 Scam and Due Diligence

Howard received a message for an annual prize from United Sigma Intelligence Association (USIA), hoping that his work would “inspire their people and help them further their love for humanity”. So far so good, soon Gardner found the organization questionable: who, what, where, how, why. It is more like a scam (aka “bad work”) and Gardner cautions we need due diligence.



October 2021 Book Reviews on Pinker's Rationality

Steven Pinker, a psychologist at Harvard and Howard's close friend, recently published *Rationality: What is it, why it seems scarce, why it matters* (Viking, 2021). Howard wrote a short review on his blog. While supporting Pinker, he proposed “RE Rationality” with three RE elements--religion, relationship, respect.



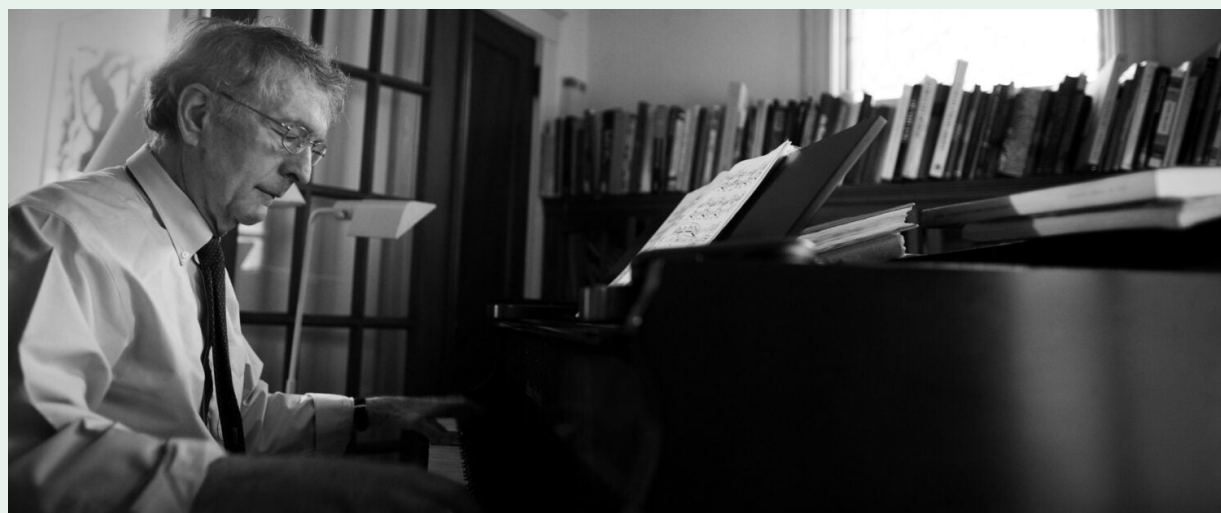
November 2021 Talk to Boston College, School of Education

Howard gave a talk to a podcast program by Boston College School of Education in November. The episode, entitled “What is the Complexity in Simplicity?”, deals with issues of complexity inherent in simplicity.



In Press *The Real World of College*

This latest work of Howard's co-authored with Wendy Fischman on collegiate education will be released in 2022.



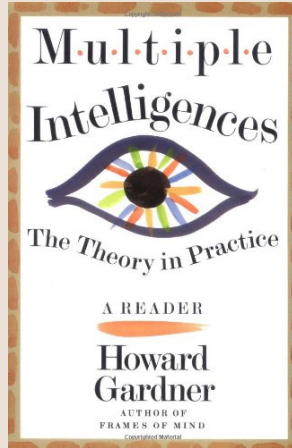
Educational Philosophy: On Howard Gardner

How His Ideas in Education Develop (Part 2)

Professor Rex Li

(D) Education: MI Theory in Practice

The Unschooled Mind in 1991 did not bring Gardner as much fame as *Frames of Mind* did in 1983, but he was able to formulate his ideas in education comprehensively in a framework of understanding for the first time. A simple idea: **education for deep understanding**. Two years later, at the 10th anniversary of the publication of *Frames of Mind*, Gardner released a new multiple intelligences title, *Multiple Intelligences: The Theory in Practice* in 1993.



Multiple Intelligences: Theory in Practice (1993)

Flipping through the book, I found that it has only one section (4 chapters) on multiple intelligences, the other sections (7 chapters) are on its application, that is **education**. When Gardner turned 50, he was thinking more about education and creativity (*Creativity Minds* was also released in 1993) than multiple intelligences.

The mood of the education sector at that time was: raising standard of students, improving quality of teaching, school reform, effective education. In 1989, President Bush proposed *American 2000: An Education Strategy*; it was taken up by President Clinton as *Goals 2000: Education American Act* in 1994. In the second wave of education reform and school restructuring, Gardner discerned two opposite camps of rhetoric, those of the business leaders' and the educators':

(1) Business Leaders' and Educators' Rhetoric

The "opinion leaders" in business, politics, and the general public—whatever they identify as the cause of educational problems—dearly desire a quick fix. And so they look to solutions like merit pay, voucher systems, the enunciation of higher standards, a voluntary or required national examination for all students.

Not surprisingly, then, they argue for—and believe in—the same "moves" that have worked in the political and business realms with which they are familiar: incentives for pay, changing the chain of command at workplace, negative sanctions for poor performance, the adoption of standardized forms of evaluation.

Opinion leaders propose "sound bite" solutions—a rhetoric of culprits and quick cures. (Gardner, 1993, pp. 82–83)

According to Gardner,

Among educators, a surprising degree of consensus exists about the nature of schools' problems and the kinds of solutions that are likely (and unlikely) to work. They

believe schools' difficulties arise from a variety of sources, including the sharp rise in the incidence of broken homes, the lessening of respect for parents' and teachers' authority, the huge amount of time youths spend passively watching television, and the alarming decline of the quality of life in our cities. Over the decades, such factors have greatly complicated the process of delivering quality education; they cannot be alleviated by a "quick fix." (Gardner, 1993, p. 81)

(2) Multiple Intelligences Projects in Education

By then, Gardner was considering himself an educator, in saying that "It may sound as though I, as an educator, have offered . . ." (p. 83) He had lots of multiple intelligences followers in education. Many colleagues and acquaintances collaborated with him on multiple intelligences projects in education, notably:

Table 5: Gardner's Various Multiple Intelligences Projects in Education

Project	Collaborators / Researchers	Brief Description
Project Spectrum	David Feldman Mara Krechevsky	
Key School	Pat Balanos	
Practical Intelligences for School (PIFS)	Robert Sternberg	
Arts PROPEL	Researchers in Educational Testing Service and Harvard Project Zero	

(3) Education in the “Spirit” of Multiple Intelligences

Gardner stressed that “there is no recipe for a multiple intelligences education.” (p. 66). Probably he disliked standardization which may stifle creativity and individual potential. But his ideas evolved and “in time, I began to evolve some notions about an education in the spirit of multiple intelligences” (p. 67).

Gardner stressed that “there is no recipe for a multiple intelligences education.” (p. 66)

He had co-authored with Tina Blythe, an educator, an article entitled *A School of the Future* which became Chapter 5 of this book. In it, Gardner and Blythe drew up the blueprint of a multiple intelligences school with two interlocking propositions, five principles, seven practices, and four expected outcomes:

Table 6: Summary of Gardner's Future School

Motto	Individual-centered education
Vision	Deep learning for students
Propositions	<ol style="list-style-type: none"> 1. Education ought to remain responsive to individual differences. 2. No individual can master even a single body of knowledge completely.
Practices	<ol style="list-style-type: none"> 1. Students study traditional subjects in untraditional ways. 2. Learn through student projects 3. Contextual exploring and learning 4. Stimulate a range of intelligences through the use of kits 5. Teachers make notes about the students they are watching. 6. Spectrum Report detailing the child’s intellectual profile 7. Get students involved in the community
Expected outcomes	<ol style="list-style-type: none"> 1. Students feel better about themselves. 2. Students become positive members of community. 3. Against one standard competence 4. Supports multiple competences

Such is Gardner’s vision and action on education. Our scholar understands that education is a practice; it is an action and he participates through his ideas, programs, and vision. It clearly shows he is an important opinion leader supporting progressive education and a liberal voice in the course of American education reform in the 1990s.

(E) Gardner in His Fifties

(1) A Progressive Education Thinker and Reformer

In his forties, Gardner worked on arts education and proposed individual-centered education in around 1985–1990. Then he formulated his framework of understanding in education in *The Unschooled Mind*, published in 1991. When Gardner turned 50 and published *Multiple Intelligences: The Theory in Practice*, he showed up as an opinion leader in progressive

education. Some schools had already been practicing his multiple intelligences in education. Many research projects were going on in the name of multiple intelligences. He even drew up a blueprint of an utopian MI school.

In 1996, Gardner wrote about progressive education with a subtitle of “preserving the best of the progressive traditions in psychology and education.” He found six new insights:

- The existence of domains beyond universal
- The importance of specific knowledge and expertise
- Individual differences
- Enduring misconceptions
- Contextual experience
- Judgement in culture

Most important of all, he believed in the brainy child and the need for openness in education.

“preserving the best of the progressive traditions in psychology and education”

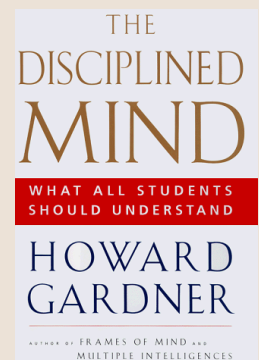
It is our deepest belief that the human mind comes prepared –we might even say “well prepared”–to be open to new ideas. It is the obligation of any society in which we would choose to live to maintain that openness and to facilitate the routes to new insights and new understandings. We oppose those psychological and education approaches that threaten that openness or presume to deny its importance and even its existence. (Gardner, 1996, collected in Gardner, 2006, p. 212)

During his fifties, Gardner was busy with his psychological research: creativity, leadership, case study and good work project; just to name the key ones. Simultaneously, he was involved in many school projects, notably the ALTAS communities project. For seven years, he was involved in “comprehensive, broad-based school change, as in my collaborative efforts with James Comer, Theodore Sizer, and Janet Whitla to create a K–12 pathway designed for ‘Authentic Teaching and Learning for All Students’ (known acronymically as the ATLAS Communities Project)” (Gardner, 1999, p. 230). There were 11 school reform projects nationwide starting in 1992 selected for funding by the non-profit New American Schools (NAS).

(2) Love Letter—*The Disciplined Mind* (1999)

By synthesizing “30 years of research in the cognitive and biological science, and over 15 years of involvement in precollegiate education,” Gardner turned out *The Disciplined Mind* in 1999.

When Gardner wrote “a personal introduction” to this book, I would see it as his love letter of engaging romance with education, (“As a Psychologist with a Deep Interest in Education,” 1999, p. 15).



The Disciplined Mind (1999)

In it, Gardner spelt out the details of the disciplined mind, a mind to master symbols and notations for deep understanding in formal schooling. Starting from the three virtues in philosophy of education (truth, beauty and good), Gardner developed his ideas through psychology (brain and mind), early childhood education (preschools), understanding and multiple intelligences. He offers three idiosyncratic examples (curriculum exemplars) of understanding: evolution, Figaro and the holocaust.

(F) Gardner Continuing in His Sixties

(1) Education Changes and New Skills

911 attack struck in the heart of New York City as well as the American mind. Gardner began to ponder about education of the future with new skills and understanding. In a paper entitled *How Education Changes: Consideration of History, Science and Values*, (2004), Gardner proposed precollegiate education of the future to encompass the following new skills and understandings:

- Understanding of the global system
- Capacity to think analytically / creatively with disciplines
- Ability to tackle problems and issues beyond discipline boundaries
- Knowledge of and ability to interact civilly and productively with individuals from quite different cultural backgrounds
- Knowledge of and respect for one's own cultural tradition(s)
- Fostering of hybrid or blended identities
- Fostering of tolerance

(2) Educational Philosophy

The Development and Education of the Mind—The Selected Works of Howard Gardner (2006a), while a comprehensive summary of Gardner's psychology and education, contained few new ideas. But it may be the first time Gardner succinctly stated his educational philosophy. Following the progressive view of human nature from Rousseau, Dewey to Piaget and Bruner, (2006a, p. 2) Gardner believed "children have enormous potentials, these potentials should be broadly nurtured." (2006a, p. 3) Stated Gardner on educational philosophy:

Once I began to ponder my own educational philosophy, I became convinced of a supravening educational goal: the development of thinking within the major scholarly disciplines. Of course schools can properly pursue more than a goal. But, to my own mind, if education does not inculcate the major disciplinary ways of thinking, then it has failed in a fundamental way Just as I have come to believe that all educational issues harbor value components, I also believe that the inculcation of values is fundamentally an educational challenge - one that never ends for the individual or the species. (2006a, p. 5)

(3) *New Horizons in 2006*

A quarter of a century after the publication of the seminal

Frames of Mind (1983), Gardner came to "revise and update" it in *Multiple Intelligences: New Horizons* (2006).

By then, Multiple Intelligences was further developed, from seven to eight and a half intelligences, and Gardner had to answer frequently asked questions (FAQ) with the help of his colleagues Joseph Walters and Margaux Wexberg (Gardner, 2006b, p. 63) Gardner had pondered much on education, such as gifted education (Chapter 3), good work and values underlying education (Chapter 4) and the nurturance and education of intelligence (Chapter 13). At the same time, he and his colleagues had worked much on education practices to enhance multiple intelligences which were also reported in this book (Chapters 6–10).

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New Horizons reaffirmed Gardner's position as a progressive educator. He proposed three roles of educators in individual centered education: assessment specialist to establish learners' intellectual profile; curriculum facilitator to support learners' needs; mentor with real life support:

Not everyone wants to be a law professor; and, indeed, not everyone can occupy any particular occupational niche. The chance for a child to explore options that might be congenial to his or her strengths and interests can spell the difference between a frustrating educational experience and one that has purpose. (Gardner 2006b, p. 57)

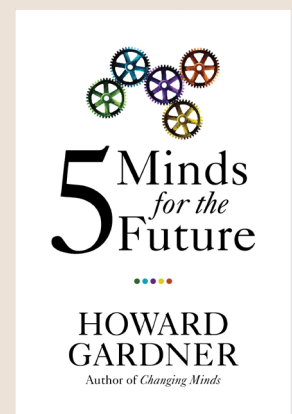
Here we saw Gardner taking up a middle ground position – he called it "elegant middle ground" (2006b, p. 61), in which:

- He was supportive of assessment and developmental profile, which is a broader view to include multiple intelligences profile (Chapter 6).
- He was an advocate of disciplinary understanding in learning, and rejected the accusation that "multiple intelligences approach to education is a license for 'doing your own thing'" (2006b, p. 60).
- He endorsed the brainy child and individual differences, demanding education to "recognize and nurture all of the varied human intelligences" (Gardner 2006b, p. 24). "We are all so different" that education is to cater for individual growth.

(4) *Five Minds for the Future*

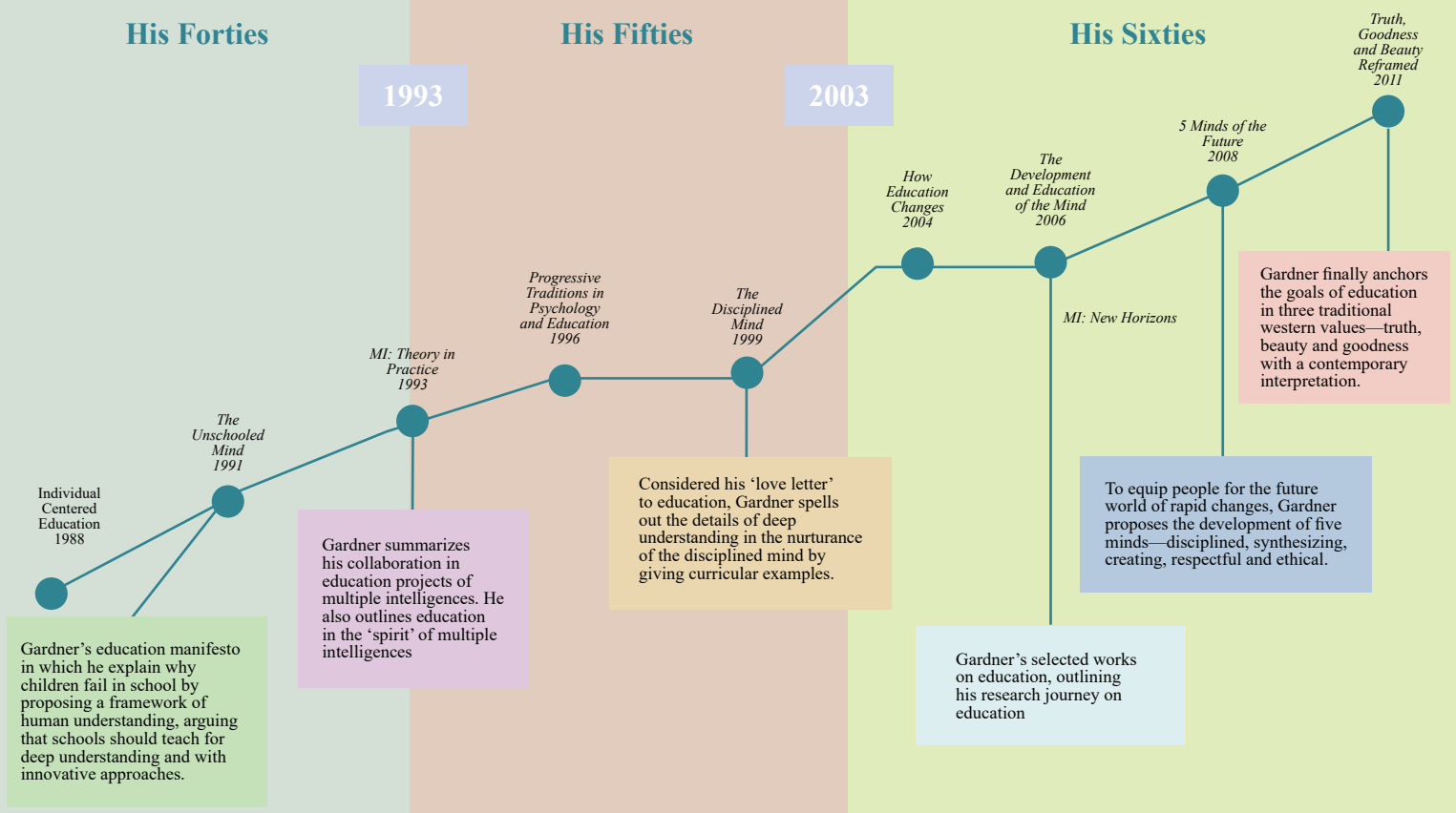
Gardner continued to ponder over education goals and values. Two years later, when he published *Five Minds for the Future* (2008), he was moving from the description of mind to the prescription of mind, (2008, p. 1) to prescribe because "education is inherently and inevitably an issue of human goals and human values" (2008, p. 13).

Gardner criticizes the existing old education which is not working, as evidenced in its outcome:



Five Minds for the Future (2008)

Figure 1: Howard Gardner's Educational Ideas in Progress



... current practices are not actually working. We might think, for example, that we are educating young persons who are literate, or immersed in the arts, or capable in scientific theorizing, or tolerant of immigrants, or skilled in conflict resolution. But if evidence accrues that we are not successful in these pursuits, then we should consider altering our practices ... or our goals. (2008, p. 10)

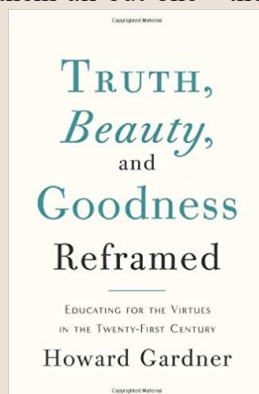
He argues that social and technological change has led to change of goals and capacities. For example, there is no premium to good memory and recitation (2008, p. 11). The "New educational aspiration" is to respect others' cultures. Summarizes Gardner on his new education:

We can speak about these changes as entailing the power of science and technology and the inexorability of globalization. These changes call for new educational forms and processes. The minds of learners must be fashioned and stretched in five ways that have not been crucial—or not as crucial—until now. (2008, p. 11)

The five minds are: the disciplined mind, the synthesizing mind, the creating mind, the respectful mind, and the ethical mind. In fact, Gardner has elaborated them all but one—the respectful mind—in his former work. This becomes important in a world culture of diversity and tolerance.

(5) Truth, Beauty, and Goodness Reframed (2011)

This brings us to the final chapter of Gardner's work in education in his sixties. In 2011, two years before he turned seventy, he found his anchor in education: the three virtues. It is an old



Truth, Beauty and Goodness Reframed (2011)

but secured anchor and foundation, Gardner believed.

By that time, Gardner had been researching on good work for over a decade. His concern about ethics, about good and evil, grew even stronger with the changing intellectual atmosphere and social climate. In business, the punitive motive and unethical practice such as the Enron fraudulent debacle (1998–2001) had challenged American values of justice and fairness. Internationally, the 9/11 attack showed antagonism between Western and Moslem values. Intellectually, the domination of postmodernism and the changing means of information dissemination through the Internet entailed multiple perspectives and multiple truths. These were all troubling issues as we entered the new millennium.

In this book, Gardner details Truth–Beauty–Goodness (TBG) development in childhood and adolescents, draws research from many sources, notably the children's theory of mind, moral development and artistic development. He also adds in his research in arts for children and morality (good work) for adolescents. Writing casually, he describes how children and adolescents behave in a digital age. Time and again, he stresses society's hegemony on truth and goodness, but less grip on beauty. Finally, Gardner renders his support to TBG.

(G) Conclusion: Gardner's Views and Assumptions

As I review Gardner's education ideas, I can discern his growth from psychology to education. To start with, Gardner wants to answer two basic questions: How children think and how and what we should teach. In his version of individual-centered education, Gardner stresses individual differences and multiple intelligences. Consequently, he proposes a vision

of deep learning for students, learning traditional subjects in untraditional ways, learning for understanding and application rather than for rote memorization and taking tests. He supports assessment in learning and for learning, but is against standardized testing. Instead, he and his colleagues develop personalized portfolio assessment to support his individual-centered education. His expected outcomes are that students will develop a better self-image in multiple intelligences education and become positive members of society. Taken together, Gardner is a progressive voice in education in the new millennium.

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There are a few assumptions in Gardner's educational philosophy. First, children have enormous learning potentials. For this, Gardner elaborates in developmental psychology, cognitive science and biology. It is a well-grounded assumption for all education to start with. Second, he conjures up a framework of understanding with the end-state as disciplinary understanding. He believes different disciplines have their own symbol systems, concepts and rules, simply put, a paradigm to see and interpret the world, thus, overturning a commonsense world into a disciplinary worldview. History is not story, but about with underlying causes, motives, interactions, unintended outcomes and so forth. Biology is not just appearance and creation, but evolution and interaction in a complex environment. Politics is not about good guys and bad guys fighting, but about underlying ideological and cultural conflicts. In this sense, Gardner supports the postmodernist view of multiple perspectives and that there is no one supreme or "correct" view.

The third assumption is that there are universal human interests and values which are essential to his philosophy of education. Truth, beauty, and goodness are three virtues that different cultures and people are concerned with, though these

virtues will be defined differently over time and space with different contents and structures.

In the final analysis, they reflect human nature, condition, preferences and human goals. Education, in a sense, is under the hegemony of social and political structure for human goals.

The final assumption is Gardner's view on open-mindedness. He believes that it is important for a child to ask questions more than to give answers. He believes the critical thinking process is more important than the solution. He believes the human fate is open and undetermined, to be decided by human beings. He points to his motivation of writing *Truth, Beauty, Goodness Reframed* as a support to openness and against determinism. In his words,

When I examine my own motivations for writing the present book, I realize that I have been stimulated, in significant measure, by the need to respond to two powerful analyses of the human condition—one emanating from biology, the other from economics. . . . In a sense, this book may be read as a sustained argument against the hegemonies of biological determinism and / or economic determinism. (2011, p. 14)

This, then, is Gardner's view on humanity—openness and change:

I argue that what is distinctly human is our capacity to change, or to transcend, whatever traits and inclinations we may have as initial endowment, courtesy of evolution. Our prehistory, our recorded history, and our numerous diverse cultures testify to the flexibility of our species and the unfathomability of its future course. (2011, p. 15)

With the above assumptions, an image of a progressive educator begins to emerge. For Gardner, education is to teach for deep understanding and to prepare children for good work in life. Education has to be related to basic universal human values of truth, beauty and goodness. In our present era of globalization and internet technology, it is imperative to educate everybody for understanding, respect and tolerance of different cultures. It is an education for the development of human potentials, deep understanding, and human values for an open future.

What is distinctly human is our capacity to change, or to transcend.



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Professor Li received a Doctor of Education from Teachers College, Columbia University. He is a psychologist as well as a pioneering educator of the gifted in Hong Kong. Being the founder of the Gifted Education Council, G.T. College, and the Hong Kong Mathematical Olympiad School, he serves as a consultant and advisor to many local and overseas institutions. He was appointed Visiting Professor in the Institute of Psychology at the Chinese Academy of Sciences (1997) and Fudan University, Shanghai (2016). He is Chief Editor of *John Dewey's Selected Works*, (2017) and author of many scholarly works, the latest being *Rediscovering John Dewey: How his psychology transforms our education* (Palgrave Macmillan, 2020).

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