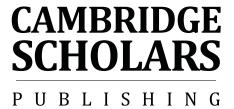
Imagination in Educational Theory and Practice

Imagination in Educational Theory and Practice: A Many-sided Vision

Edited by

Thomas William Nielsen, Robert Fitzgerald and Mark Fettes



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Imagination and Education

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PREFACE

This book was inspired by papers developed for the 6th International Conference on Imagination and Education: Imaginative Practice, Imaginative Inquiry, held from 29 to 31 January, 2008, in Canberra, Australia. Like the conference, this book seeks to connect a cross-section of educators, researchers and administrators in a dialogue and exploration of imaginative and creative ways of teaching, learning and conducting educational inquiry. Five previous conferences had been held in Vancouver, Canada, and the vibrant exchanges and collaborations at those events suggested that a truly global movement might be emerging. The success of the Canberra conference, and the enthusiastic and generous response to our proposal for a book, reconfirm the significance of imagination as a focus for both theory and practice in education.

In collecting and editing these papers, we did not seek to impose any particular framework or philosophical orientation on the authors. Nonetheless, we encouraged them to read each other's work and to consider alternative perspectives, in the belief that this would help strengthen the book itself as well as the field as a whole. We have for this book chosen chapters with either a practical or a theoretical focus. This is not because we think a divide between these orientations is either possible or desirable. Rather we wish to acknowledge the tension that exists in this educational field as in others, and to encourage our readers to seek understanding and inspiration from both sources. Ultimately, we hope that this book, like other recent contributions to the literature, will help bring about new, creative syntheses of theory and practice in Imaginative Education.

In order to provide a more meaningful context for the diverse range of chapters that follow, we begin the book with a literature review that shows how imaginative education research seems to be a convergence point for a number of current scholarly pursuits and challenges. From philosophy and psychology to sociology and cultural theory, there is a groundswell of interest in imagination and its role in shaping both self and society. It is this shaping, of course, that provides the central subject matter of educational research. The latter's systematic neglect of imagination in the past 150 years reflects a cultural and ideological bias that has shackled both theory and practice, and that may take an equally long time to undo.

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This book, however, along with others in the recent educational literature, provides evidence that the process has begun in earnest.

All the chapters were blind peer-reviewed by an international panel of invited scholars, many of them associates of the Imaginative Education Research Group. We hereby take the opportunity to extend our gratitude and appreciation for their generous donation of time and expertise.

To our readers, we hope that you enjoy the book. May it provide you with affirmation and inspiration for your own imaginative endeavours.

—The Editors

INTRODUCTION

IMAGINATION AND EDUCATION: A MANY-SIDED VISION

MARK FETTES, THOMAS W. NIELSEN, BRONWEN HARALAMBOUS AND ROBERT FITZGERALD

Introduction

Imagination has sporadically captured the attention of many great thinkers in philosophy, psychology, and the arts, yet it would be hard to argue that we are much closer to elucidating its central mysteries (Brann, 1991). Nor is its importance for education widely recognized. True, many people pay lip service to the educational value of engaging children's imaginations, primarily through the arts. Such engagement, though, is not generally regarded as the core business of education; it does not figure prominently in most approaches to teacher preparation, nor does it attract a great deal of attention from researchers. (For an early exception to this neglect, see Egan and Nadaner's *Education and Imagination* (1988) - a collection of essays that still offers invaluable insights.)

This book joins a handful of other edited collections in the recent literature (Blenkinsop, 2009; Leonard and Willis, 2008; Jones *et al*, 2008) that give voice to an opposing conviction: that an understanding of imagination forms an essential part of a fundamental rethinking of education "from the ground up" (Egan, 2008). Such a project inevitably spans traditional disciplinary and professional boundaries, and engages researchers in sometimes unfamiliar dialogues and explorations. Broadly speaking, this emerging field of Imaginative Education forms part of the trend towards qualitative and integrative inquiry in the social sciences, where research has ceased to be seen as a quest for objective knowledge divorced from values and goals (Capra, 1975; Gleick, 1987; Hayles, 1990; cited by Lather, 1991, p.88). Researchers in the qualitative tradition are coming to pay more attention to the relationship between the sciences, arts

and spirituality; some have pointed to the emergence of a 'sacred science' of research that may "reintegrate the sacred and the secular in ways that promote freedom" (Denzin and Lincoln, 2003, p.286). New conceptions of both imagination and education seem destined to play important roles in such a project.

Imaginative Education, therefore, is not concerned only with the creative arts, arts education, and curriculum, but with a much broader range of subject areas including philosophy, psychology, neuroscience, cultural criticism, sociology, ecology, science education, arts education, values education and spiritual education. Given this wide focus, the following review of the literature must necessarily be illustrative rather than exhaustive. The interested reader will readily be able to supply additional authors and works that have made important contributions to the field. Indeed, we would encourage others to undertake such reviews of their own, helping to make connections between diverse theoretical, cultural and practical traditions that have long been isolated from one another. It is in the same spirit that we have collected and edited the various contributions to this book. As Blake famously observed, the imagination is best illuminated from multiple angles: "May God us keep / From single vision and Newton's sleep."

Philosophy and Psychology

Imagination's relationship to perception, thought, and memory is the focus of the oldest tradition relevant to the themes of this book. Most extensively chronicled in Eva Brann's *The World of Imagination: Sum and Substance* (1991), this domain of research extends from classical philosophical inquiry to contemporary neuroscience, with a vast range of psychological approaches occupying the middle ground. Brann's study provides a comprehensive survey of 450 authors that justifies its claim to status as a classic reference text. More concise and relatively recent treatments are those of Warnock (1978) and White (1990). As any of these works makes clear, there exists no unified account of the nature of imagination or its role in cognition. Despite this lack of consensus, or perhaps even because of it, some familiarity with the central controversies and figures in the field would be an asset for any imaginative educator.

An example of such a controversy is provided by Harris (2000). Disputing the widely accepted Freudian and Piagetian notions of the supremacy of rational thinking over imagination in childhood development, she sides with Bleuler's view that imagination (ironically termed by him 'the autistic function') develops out of the child's grasp of reality and

represents a more sophisticated mode of cognition. Building on Bleuler, Harris highlights three key claims supported by her research: that pretend play is not present in infants but emerges only in the second year of life, after which it becomes increasingly elaborate; secondly, that the great apes only demonstrate occasional pretending, indicating that ubiquitous pretend play is a distinctly human characteristic; and thirdly, that it is the absence of early imagination and not its presence that it is pathological. Indeed, one of the key tools used to diagnose autism is a noticeable lack of the ability to play (2000, p.6).

The influence of Freud's negative view of imagination can be seen in Piaget's insistence that play does not accommodate itself to reality but rather adapts reality to suit the self and its pleasure needs (Harris, 2000, p.3). Piaget's theory of child development, of course, had immense impact on Western education in the 20^{th} century, in spite of its substantial limitations (Egan, 2002). Only since the 1970s has the alternative sociocultural developmental theory of Vygotsky – who astutely absorbed and used Bleuler's ideas in his analysis of egocentric speech (Harris, p.4) – gradually come to exert greater influence on educational theory and practice (Luria, 1971, 1976; Vygotsky, 1978). Among other differences, Vygotsky offers a more appreciative assessment of imagination (Gajdamaschko, 2005), although this aspect of this thought has not generally been emphasized by his followers. A neo-Vygotskian theory of imaginative educational development has, however, been developed by Kieran Egan (1997, and below).

The turn towards more culturally embedded models of mind and education is echoed in the work of Jerome Bruner. In The culture of education (1997), he argues that the focus of educators should shift from an emphasis on individual competence to the question of how education equips individuals to participate in the life-sustaining aspects of the culture in which schooling is embedded. Positioned within the emerging field of cultural psychology, Bruner provides a retrospective view of the two contested conceptions of how the mind works that have developed since the early decades of the cognitive revolution in the 1940s and 50s: the mind as a computational device, and the mind as both constituted by and realized in the use of human culture (1997). While clearly leaning towards the latter conception, Bruner suggests that both perspectives enhance our understanding of the nature of knowing (p.8). Here Bruner draws on his earlier work (1986, 1990) that signals the importance of the narrative mode as an instrument of meaning making; imagination is the source of meaningful experience offering a rich heritage of stories, drama, myths and ritual. Accounts of mind that omit or downplay this dimension are necessarily incomplete.

Allied with Bruner's emphasis on culture is the increasing importance of embodiment and emotions in present-day models and research paradigms on the nature of human (and non-human) cognition. A key figure in this area is Antonio Damasio, whose case studies of patients where the impaired or absent functioning of the emotional centres in the brain contributed to the break down of rationality led him to conclude that emotions and feelings play a significant role in all learning processes (Damasio, 1994). He argues (with Immordino-Yang, 2007) that although "rational thought and logical reasoning do exist" they are "hardly ever truly devoid of emotion" and "cannot be recruited appropriately and usefully in the real world without emotion" (pp.7-8). Emotions and learning therefore form a core attribute of the human function of decision-making and choice.

Damasio singles out the anterior cingulated cortex for particular attention as a region of the brain "where systems concerned with emotions and feeling, attention and working memory interact so intimately that they contribute the source for the energy of both external action (movement) and internal action (thought animation, reasoning)". If this area of the brain, which Damasio calls the 'fountainhead', is damaged the person moves into a state of 'suspended animation' where reasoning and the expression of emotion are seriously impaired (1994, p.71). generally, Damasio observes that our creativity and our uniquely human artistic, scientific, and technological innovations (2007, p.7) rely on the inter-streaming of the cognitive and emotional aspects of brain function. With Immordino-Yang he further suggests that "out of these same kinds of processing emerges a special kind of human innovation: the social creativity that we call morality and ethical thought" (2007, p.7). In weaving together emotion, high reasoning, creativity and social functioning in a cultural context (Gardner, Csikszentmihaly & Damon, 2001; cited by Immordino-Yang & Damasio), ethical decision-making can be seen to be "the pinnacle of human cognitive and emotional achievement" (Immordino-Yang & Damasio, 2007, p.7). With only small changes in terminology, the authors can be regarded as elaborating a kind of psychological model of the imagination.

More testimony to the power of imagination comes from Doidge (2007), who gathers stories from patients suffering mental limitations imposed by brain damage who are able to overcome their disabilities by virtue of the brain's plasticity. The stories tell of a woman born with half a brain that rewired itself to work as a whole, blind people who learn to see, learning disorders cured, IQs raised, aging brains rejuvenated, stroke patients learning to speak, children with cerebral palsy learning to move

with more grace, depression and anxiety disorders successfully treated, and lifelong character traits changed. In a chapter devoted to imagination, Doidge observes that "imagining an act and doing it are nor as different as they sound. When people close their eyes and visualize a simple object, such as the letter *a*, the primary visual cortex lights up, just as it would if the subjects were actually looking at the letter *a*" (pp.203-204). Elsewhere he argues: "Everything your 'immaterial' mind imagines leaves material traces. Each thought alters the physical state of your brain synapses at a microscopic level. Each time you imagine moving your fingers across the keys to play the piano, you alter the tendrils in your living brain" (p.23).

However, despite the positive focus of his work, Doidge notes that the same plasticity that promotes positive transformation can also entrap us. It is the plastic nature of the brain that contributes to the detrimental effects of television viewing in early childhood, to the potentially harmful effects of propaganda on the young, and to the rigid effects of ageing if the mind is not kept active (pp. 306-311). Doidge concludes: "the elucidation of human neuroplasticity in our time, if carefully thought through, shows that plasticity is far too subtle a phenomenon to unambiguously support a more constrained or unconstrained view of human nature, because in fact it contributes to both human rigidity and flexibility, depending upon how it is cultivated" (p.318). To educators, of course, this is hardly news: the moral and strategic choices embedded in such cultivation lie at the heart of our discipline.

Spirituality, Depth Psychology, Ecology

While mainstream psychology and philosophy have been rediscovering the importance of imagination after a long period of relative neglect, holistic practitioners of both disciplines continue to propose new models for its cultivation. One of the most influential of these traditions is the 'anthroposophy' of Rudolf Steiner, designed to connect the spiritual in the human being with the spiritual in the world. Steiner extended the conceptual framework of biological evolution, as understood in his day, to include a cultural and spiritual perspective, and applied this to the design of a school in Waldorf, Germany, that became a model for many similar schools around the world. The Steiner curriculum is unfolded against the expansive backdrop of the 'evolution of consciousness': every human being is considered to recapitulate over the course of a lifetime the stages of development of humanity as a whole. Such development is seen as a complex process: Steiner's 'threefold model' of thinking, feeling and willing, which is encapsulated in the Waldorf motto of 'head, heart and

hands', is better known than his 'fourfold' model of human development which is understood to include elements from each of the following four different levels of life: the physical/mineral plane, the 'etheric'/plant world, the 'astral'/animal and emotional sphere and finally the egoic or metacognitive level. This latter model, in particular, offers a useful alternative, theoretical lens that has the potential for further development in pedagogical practice.

Less directly influential in education, but similarly ambitious in its aims, is the Jungian psychological tradition. The recent collection of essays complied by Jones, Clarkson, Congram and Stratton (2008) provides invaluable insight into the relevance of Jungian perspectives in the classroom. Drawing on Jung's observation to teachers in 1924 that analytical psychology is "an eminently practical science" which does not "investigate for investigation's sake but for the immediate purpose of giving help" (Jung, 1946, para.172; cited by Jones *et al*, 2008, p.6), the editors argue that Jung's ideas help place "the whole person at the centre of teaching and learning processes" and provide "a framework for considering and promoting personal wholeness" (p.6). Their concern is not only with students but with teachers as well, and the authors of various chapters deploy the three key concepts of individuation, active imagination and archetype, in particular, to elaborate case studies and guidelines for the practicing educator.

In acknowledging the work of other Jungian educators and writers, the editors single out Bernie Neville's 2005 handbook for special mention as a noteworthy contribution that is grounded in James Hillman's archetypal psychology (p.7). Neville (2005) provides an extensive catalogue of teaching strategies, such as indirect learning, suggestion, trance, psychodrama, relaxation, autogenics, bio-feedback, visualization, intuition, mind-control and meditation. The fact that very few of these strategies can be found in the repertoire of typical classroom teachers is indicative of the vast changes that might follow if imagination were to be given greater priority in the processes of teaching and learning.

A similarly sweeping reorientation of education is implied by the earlier collection of essays edited by Glazer (1999), *The heart of learning: Spirituality in education*. The focus here is above all on guiding teachers to connect with what they love most in education: the reasons why they teach and learn as a pathway to achieving greater fulfillment in both. The essayists include the Tibetan lama Dozgchen Ponlop Rinpoche who examines how our unique, individual experiences of the sacred can profoundly enrich how we learn and teach. Writings by Bell Hooks and the Dalai Lama show how we simultaneously can cultivate both individual

beliefs and openness to the diversity of the contemporary classroom. Works by Huston Smith and Rabbi Zalman Schachter-Shalomi explore our need to balance our past histories and traditions with the needs of present and future generations. While the term imagination appears seldom in these pages, there is a clear overlap between these perspectives and the authors previously cited in this section.

Theoretically more ambitious, Wilber (2000) attempts the mammoth task of integrating leading approaches to consciousness, psychology & therapy. Gathering theories from the east and west, both Ancient and modern, Wilber formulates an integral vision that features the self, waves and streams of development, and states of consciousness. As fruit of his conceptual mapping and in attempt to resolve epistemological challenges, Wilber offers the four quadrant (AQUAL) framework as a model for integrating research findings across fields and periods of development. The quadrants include the following categories: the interior subjective intentional world of 'I' (first person); the shared intersubjective interior cultural worlds of 'WE' (second person); the measurable objective external behavioural world of 'IT' (third person singular); the external interobjective social world of 'ITS' (third person plural) (p.67).

In The integral vision: A very short introduction to the revolutionary integral approach to life, God, the universe, and everything (2007), Wilber hones his vision further and offers a five step *IOS* map that includes firstly development lines, for example models of cognitive and moral growth (Erikson's stages of psychosocial development, Maslow's hierarchy of needs, Habermas' historical epochs); secondly, development levels like Cook-Greuter's awareness levels which influence change capacity: thirdly. states of consciousness (waking, dreaming, deep sleep, meditative and altered states, peak experiences); fourthly, types (personality types, the Myers-Briggs model); and lastly, the quadrants, described above. The book reads like a manual with explanations, exercises and examples aimed at assisting the acceleration of personal growth and development to higher, wider, and deeper ways of being. The expansive canvas covers everything from self-embodiment, enriched relationships, and spiritual enlightenment, to business success, community sharing, ecological living, and finally to planetary evolution.

Building on Wilber's work, the educational futurist Richard A. Slaughter (2004) argues that the attention we pay to our oft-obscured "inner dimensions" (p.159) and the diligence we show in our care of the outer environment are closely related (pp.121-126). Thus a sound approach to ecological education requires a pedagogy of imagination; a way to nurture creative capacities for reclaiming what has been lost, and

for embracing "other ways of knowing, other realities, other potentials to activate" (p.116). Such an educational vision is implicit in the recent work of ecological educators, who focus on designing learning programs that affirm the value of sufficiency, mutual support and community (Smith & Williams, 1999). Holistic perspectives are embedded in the attention paid to the context of systems: familial, geographic, ecological and political (Stone & Barlow, 2005); as David Orr writes in the Foreword to this latter volume, the aim is "a deeper transformation of the substance, process, and scope of education at all levels". By nurturing the capacity of teachers and learners to develop and realize such visions, Imaginative Education offers a positive and valuable contribution towards a more sustainable future and a way in which we can "cooperate more discriminately in the evolutionary scheme of things" (Nielsen, 2004, p.231).

Sociology and Cultural Critique

The implication of imagination with the outer world of culture and society, as well as the inner world of the soul and the self, has nourished a rich tradition of social analysis and cultural criticism of the kind practiced by Georg Lukács, Theodor Adorno and Walter Benjamin. A notable example is Richard Kearney's The wake of imagination: ideas of creativity in western culture (1988). While most authors who write about imagination identify its 'awakening' and revitalizing effects, Kearney ironically calls up images of a dying process. He suggests that Imagination is under threat and that its demise is a postmodern obsession (p.3). As for a species under threat of extinction, there is a need to tell the story of imagination, its genealogy, genesis and mutations (p.6). He sets out to examine significant models of Imagination that have come to expression in the distinctive cultures of the Hebraic, Greek, medieval, romantic, existential and post-modern periods. By drawing attention to the strange paradox of contemporary culture that "at a time when the image reigns supreme the very notion of a creative human imagination seems under mounting threat" Kearney challenges us with the realization that we lack awareness of "who exactly produces or controls the images which condition our consciousness"; and that we may therefore be "assisting at a wake of imagination" (p.3).

Kearney's work echoes concerns voiced by many others. Brown & Duguid (2002), for example, observe that "living in the information age can occasionally feel like being driven by someone with tunnel vision" (p.1); the unfortunate passenger sees "where they want to go, but little besides". In arguing that information technology occurs in a social context

that is often overlooked, they encourage us to pay attention to the 'social periphery' – "the communities, organizations, and institutions that frame activities" (p.5). More interested in consciousness-raising than in offering solutions, Brown & Duguid conclude by observing that "solutions will be much harder to find if we drive at the problems with tunnel vision – if ... peripheries and margins, practices and communities, organizations and institutions are left out or swept out of consideration" (p.252). As we shall see in a moment, this emphasis on the need for social imagination is a theme that has been voiced repeatedly in past decades.

Some social critics, however, have offered more hopeful visions. For example, the urgent need in the fast-paced world of economic and technological change for people who are creative, innovative and flexible (Robinson, 2007) is considered by Florida (2003) to be driving the rise of a new 'creative class', including "people in science and engineering, architecture and design, education, arts, music and entertainment, whose economic function is to create new ideas, new technology and/or new creative content" (p.8). While the new class is effectively transforming work, life, leisure, community and everyday life through their "power, talent and numbers". Florida claims that the creative class has not yet realized its identity as a class and will therefore be "unable to consciously influence the course of society it largely leads" (p.xi) until it grows up and takes up global responsibilities. Robinson, on the other hand, suggests that this lack of influence and responsibility is a downstream problem that has its origins in the education system; he calls for an urgent rethinking of intelligence and a reevaluation of how we educate children so as to facilitate the recovery of creative talents (2007).

Whereas Florida attributes the rise of the creative class to economic factors, Ray and Anderson (2000) who similarly recognize the 'cultural creatives' as a new social movement, see it growing steadily out of the social movements of the Sixties into the contemporary consciousness psychology spirituality, and movements in alternative (www.culturalcreatives.org/book.html). From their perspective the cultural creatives are a step ahead in terms of taking responsibility for global issues; they describe the new class as characterized by their concern for environmental issues. Ray and Anderson observe: "Right now over 70% of the world population is convinced that something serious has to be done about the dangers facing the planet ... It's a matter of moral imagination, a wisdom of the heart. This is where many of the cultural creatives are headed now: directly into the core of the problems of our common world" (p.314). Common to both analyses, evidently, is an

emphasis on imagination and creativity as the engines of social and cultural transformation.

Scharmer (2009) would concur that interest in creativity is symptomatic of raised levels of consciousness and spiritual experience. He explores attentional awareness and 'presencing' as the key to creativity and to both personal growth and organizational change. However, Scharmer cautions that recent survey data reveals the value shift towards the new movements is "countered by a backlash into a narrow, selfcentred, reactive view" (2009, p.92). Like Brown and Duguid, he suggests that we share a collective blind spot that hinders our ability to see "the process of the coming into being of social reality" (p.103), and he sees the overcoming of this blind spot as an essential tool for social change. Emphasizing that we need to "trust our own senses, experiences, and insights - without having a clue as to where that journey will lead next" (p.104), he offers guidelines for 'presencing' as way of paying attention to the source that flows from the well of deeper awareness. When 'presencing' we are able to see our own blind spot and pay attention in a way that allows us to experience the opening of our minds, our hearts, and our wills. Through this process we are able to shift our awareness to allow us to connect with our best future possibility and to realize it - an achievement that relies implicitly on imagination.

Such an emphasis on the utopian or transformative power of the imagination echoes the lifework of the German social theorist Ernst Bloch, who was fascinated by its role both in literature and art and in projects of social change. In his monumental *The Principle of Hope* (1986), which had its genesis in the 1930s and 1940s, he pursued questions of a philosophical and epistemological nature: what is the utopian function of art and literature? What is the relationship between the conscious and known activity and the not-yet-conscious utopian function? (Bloch, 1986). Interestingly, the same theme finds an echo in the most famous work of the U.S. sociologist C. Wright Mills, *The Sociological Imagination* (1959, 2009), whose 50th anniversary was recently marked by a special issue of the Journal *Teaching Sociology*. Addressing the need for sociologists to direct their research towards the needs of the society they serve, Wright Mills called for the development of a unique quality of mind:

It is not only information they need – in this Age of Fact, information often dominates their attention and overwhelms their capacities to assimilate it. It is not only skills of reason they need – although their struggles to acquire these often exhaust their limited moral energy.

What they need, and what they feel they need, is a quality of mind that will help them to use information and to develop reason in order to

achieve lucid summations of what is going on in the world and what may be happening in themselves. It is this quality, I am going to contend, that journalists and scholars and publicans, scientists and editors are coming to expect of what may be called the sociological imagination. (Wright Mills, 1959, 2009; p.5)

Embodied in the sociological imagination is "the idea that the individual can understand their own experience and gauge their own fate only by locating themselves within their period, that they can know their own chances in life only by becoming aware of those of all individuals in their circumstances" (p.5). By bringing this social positioning to consciousness, each individual can thereby empower him- or herself to seek alternatives; that is, to locate other courses of action, or to change the circumstances in which they find themselves. For Wright Mills, this could not be accomplished without imagination, conceived as "the capacity to shift from one perspective to another – from the political to the psychological; ...the capacity to range from impersonal and remote transformations to the most intimate features of the human self – and to see the relations between the two" (p.7).

From a range of sociological perspectives, then, imagination appears both as an important force in the shaping of society (see also, notably, Anderson's classic work on the origins of modern nationalism, *Imagined Communities*, 1983), and as a vital means of engaging with that society. Imaginative Education is clearly implicated in both of these. On the one hand, the reshaping of schools to make imagination more central evidently relies on social forces going well beyond the education system itself; on the other, the cultivation of students' imaginations cannot but have significant consequences for their participation in social life. Kearney's work, along with many other media scholars, also makes it clear that imaginative educators cannot afford to ignore issues in the control and deployment of media images; to a significant extent, in contemporary society, Imaginative Education must also be media education.

The Arts and Education

In practice, most imagination-centred perspectives and approaches in education have originated with researchers and teachers connected to the arts, such as the major figures of Maxine Greene and Elliot Eisner. In her essay collection *Releasing the Imagination* (1995), Greene emphasizes the role imagination plays in opening our eyes to worlds beyond our existence, enabling us to create, care for others, and envision social change. Ruminating on themes such as literacy, the arts and aesthetics, pluralism

and multiculturalism, Greene explains how the arts build understanding across differences and stimulate the capacity to break the habitual, counteracting the sometimes pervasive sense of futility that overwhelms many of our youth. Eisner, on the other hand, has been an articulate champion of imagination and artistry in teaching, and of the integration of the arts in mainstream schooling. In arguing that the arts should be at the core and not the margins of education, Eisner (2002) echoes Bruner's earlier call to notice the close collaboration of the senses, the emotions and cognition as aspects of mind, which are at play in both the creation and the appreciation of art works. When nurtured with care these capacities become essential attributes for understanding nuances of meaning and for dealing with the ambiguities of life. In subsequent works he argues that school improvement can be achieved not only through scientific research but also through "methods deeply rooted in the arts" (2009, p.6), and he offers examples of practices (2009) and forms of thinking (2003) that support such methods (see further under Pedagogy, below).

Almost by definition, imagination is invoked and upheld routinely across the broad field of arts education, whether involving the visual arts, drama, music, dance, or other art forms. To review this vast range of literature here would be an impossible task, but excellent recent surveys are provided in Eisner and Day's *Handbook of Research and Policy in Art Education* (2004) and the *International Handbook of Research in Arts Education* (Bresler, 2007), which includes contributions by Eisner, Greene, Bruner and many other important names in the field. Not to be ignored is the classic collection of essays edited by Willis and Schubert, *Reflections from the Heart of Educational Inquiry: Understanding Curriculum and Teaching through the Arts* (1991). In one way or another, all of these works may be seen as contributing in significant ways to our understanding of imagination in education.

Curriculum and Pedagogy

At the centre, perhaps, of the field of Imaginative Education are works focusing on the nature of teaching and learning in general, including both the theory of curriculum and pedagogy and the development of practical alternatives to established ways of doing things. Naturally, such work generally draws on one or more of the areas outlined above, either explicitly or implicitly. As the field matures, it might be hoped that its practitioners become more adept at situating themselves within this diverse range of traditions, such as specifying the conception of human development or the social vision that informs their work. In its present,

somewhat inchoate state, it is not uncommon to find an eclectic blend of references to progressivism, constructivism, existentialism, and a variety of other educational traditions that have at best an ambivalent relationship with the imagination.

Such a charge cannot be sustained in the case of Kieran Egan, however, who has been the most consistent and ambitious educational theorist of the imagination of recent decades. The author of trenchant critiques of educational psychology (1997) and progressivist theory (2002), Egan has also advanced his own account of human imaginative development together with suggestions regarding its educational implications (1997). Broadly Vygotskian in nature, his theory highlights the importance of emotional engagement, the role of narrative, and the changes in understanding that accompany acquisition of the 'tools for thinking' prevalent in a particular society. For teachers he proposes a set of 'planning frameworks' for developing imaginative curriculum units in any area of study (2005).

Such systematic approaches are rare, however. More typical is the diverse collection of perspectives and practices assembled by Leonard and Willis (2008). In their introduction, the editors advance a conception of the practice of imaginal knowing, which they conceive as a deeply personal process yet paradoxically one that is also open to the universe: a reliable way of knowing that moves the heart, holds the imagination and connects self-stories, public myths and cultural knowledge. The curriculum is conceptualized as the medium through which imaginal knowing can be cultivated in teachers and students so as to enrich reflective pedagogic engagement. Yet, they imply, there are multiple, perhaps even infinite routes to such cultivation. While overarching theories are useful, it is in the end the sharing of narratives grounded in practice that offer the greatest hope for developing the field in depth.

A middle ground between these positions can be found in the work of Indigenous theorist Gregory Cajete (1994, 1999). Cautioning that no theory can adequately capture the richness and diversity of local traditions, Cajete nonetheless offers a set of integrative frameworks for engaging the body, mind and spirit fully in the educational process. In some ways his work goes beyond others mentioned here in emphasizing the involvement of community and the natural world in imaginative development, on a par with artistic and spiritual practices. Curriculum and pedagogy, too, are treated as aspects of an interconnected whole.

A theory of imaginative pedagogy does not really exist at present, although much relevant work exists in arts education. There is, however, an increasing body of work on teaching methods and strategies that engage

a fuller range of learners' cognitive capacities, often invoking neuroscience research as a justification. Representative is Costa's compilation of 85 essays in *Developing minds: A resource book for teaching thinking* (2001), which adds to the bank of IE literature through the inclusion of relevant topics such as creative thinking as an essential life skill (Puccio & Murdock); the role of the arts in learning (Eisner); multiple intelligences (Lazear); open-mindedness (Berman; Baron); the social side of thinking (Perkins); Socratic Inquiry (Jackson); and dialectical-dialogical thinking (Paul). With the double intention of including theoretical perspectives that arising out of research findings, and of translating these ideas into practical application, many strategies are offered for teaching and assessing thinking skills and for curriculum design. A glossary of thinking terms is included, as are several checklists, such as one for classroom observation and one for teachers' self-evaluation.

Also clearly relevant to Imaginative Education is the growing body of literature on fostering creativity in children. A representative sample is Starko (2005), who offers ways to help teachers connect theories and research related to creativity to the daily round of classroom activities. With the aim of teaching techniques that nurture 'creative thinking' he develops strategies that cover classroom activities, reflection questions and sample lesson plans. Discussions include the topics of assessment, crosscultural concepts of creativity and collaborative creativity.

There is a tension, however, between elaborating such approaches independently of the teachers employing them, and conceiving of teaching itself as an artistic endeavour. Here the writings of Eliot Eisner provide particularly valuable insights, as he writes of the "flexible purposing" that characterizes imaginative pedagogy, with its openness to discovery, unpredictability and surprise (2009, p.8). Process is valued over outcomes; teachers are able to help students to "work at the edge of incompetence" and to view their work as "temporary experimental accomplishments" (2003, p.379). Instead of the focus falling on the collection of information data, and its classification and categorization, perception is slowed down to facilitate the savouring of qualities, to allow for the flow of process (2009, p.8). Eisner quotes Dewey (1938): "Flexible purposing is opportunistic; it capitalizes on the emergent features appearing within a field of relationships. It is not rigidly attached to predefined aims when the possibility of better ones emerges" (2003, p.378). The same qualities are explored in Jagla's interesting study of imagination and intuition in the practice of eight teachers in classes ranging from kindergarten to college (1994).

Nielsen (2004) draws on the work of Rudolf Steiner, cited earlier, to further develop insights into the nature of 'imaginative teaching'. Using the methodologies of ethnography and phenomenology, Nielsen examines imaginative teaching in three Steiner primary classrooms and sets about re-theorizing aspects of Steiner's writings by developing 'three modes of pedagogy' and 'seven teaching methods' to promote a contemporary understanding of imaginative teaching. Nielsen suggests that the categories are helpful in both alerting Steiner teachers to the "full scope of imaginative teaching" and in improving the "quality of the application of any one of the categories" (p.229). Furthermore, he suggests, they are transferable to mainstream educational settings and may offer "an important contribution to curriculum and policymaking" (p.230). Other researchers (Woods, Ashley and Woods, 2005; Oberman, 2007) have offered qualified support for this view, although they caution that it is rarely a simple matter to transfer teaching practices from one setting to another.

Expanding Imaginative Education

What is to be made of this profusion of ideas and practices, theoretical edifices and panoplies of craft? Limited as it is, this review demonstrates beyond a doubt the variety of perspectives and approaches implicated by the concept of imagination. Does it in fact make sense to delineate this as a single field of study? Is Imaginative Education simply whatever engages the imagination of a particular teacher, student, theorist, with no definable autonomous identity of its own?

Inevitably, any such definition will be contested. Imagination is protean by nature, assuming a thousand different forms in the blink of an eye, and no attempt to pin it down will be entirely successful. Nonetheless, the editors believe that there is a core of common meaning that binds together the diverse traditions outlined above, and whose further elucidation and elaboration can make a vitally important contribution to our understanding of education in the 21st century. Roughly speaking, this core of meaning includes a view of thought and understanding as necessarily embodied, emotional and contextual as well as linguistic, logical and abstract; a view of education as necessarily encompassing spirit and mystery as well as reason, collective consciousness and culture as well as individual nature; and a view of teaching as a kind of art, to be cultivated in much the same way as the other arts, involving both the mastery of medium and technique and the ineffable workings of intuition, serendipity, and talent.

To what end are these common understandings to be cultivated and shared? This question, too, evokes a constellation of responses. Common to most or all of them are a deeper understanding of ourselves and the world around us; the nurturing of each person's potential (and our collective capacity) for creative thought and action; and greater joy and fulfillment for all those engaged in the chancy enterprise of education. Whether or not Imaginative Education is compatible, even in principle, with the constraints and pressures of compulsory schooling on a large scale is a vexed question on which no agreement exists. Yet it is clear that the core principles and commitments of Imaginative Education put it at odds with many received ideas about education and with policies and practices that currently wield great influence in schools. It is, in that respect, a movement, or assembly of traditions, with a fundamentally critical edge.

While much more could be said, and many more sources and perspectives cited, we prefer to step aside at this point and surrender the stage to our contributing authors. In their diverse ways, they manifest and illuminate the central concepts and concerns of Imaginative Education more effectively than this brief review. Out of the creative tensions that result from this encounter of disparate backgrounds, techniques, and purposes, we see a new and dynamic field emerging. May this collection contribute to its flourishing.

References

- Anderson, B. (1983). *Imagined communities: Reflections on the origin and spread of nationalism*, New York: Verso.
- Atweh, B., Calabrese Barton, A., Borba, M., Gough, N., Keitel, C., & Vistro-Yu, C. (Eds.). (2007). *Internationalization and globalization in mathematics and science education*. Dordrecht, The Netherlands: Springer.
- Bennett, M. R., Dennett, D., Hacker, P., Searle, J., & Robinson, D. (2007). *Neuroscience and philosophy: Brain, mind, and language*. New York: Columbia University Press.
- Blenkinsop, S. (Ed). (2009). *The Imagination in Education: Extending the Boundaries in Theory and Practice*. Newcastle upon Tyne: Cambridge Scholars Press.
- Bloch, E. (1986). The principle of hope. Cambridge, MA.: MIT Press.
- Brann, E. T. H. (1991). *The world of imagination: Sum and substance*. Savage, MD: Rowman & Littlefield.

- Brown, J. S., & Duguid, P. (2002). *The social life of information*. (4th ed.). Boston, MA: Harvard Business Press.
- Bruner, J. S. (1986). *Actual minds, possible worlds.* Cambridge, MA: Harvard University Press.
- —. (1990). Acts of meaning. Cambridge, MA: Harvard University Press.
- —. (1997). *The culture of education* (7th ed.). Cambridge, MA: Harvard University Press.
- Burbules, N. C., & Hansen, D. T. (Eds.). *Teaching and its predicaments*. Boulder, CO: Westview Press.
- Cajete, G. (1994). Look to the mountain: An ecology of Indigenous education. Durango, CO: Kivaki.
- Cajete, G. (1999). *Ignite the sparkle: An Indigenous science model*. Skyland, NC: Kivaki Press.
- Costa, A. L. (Ed.). (2001). *Developing minds: A resource book for teaching thinking*. (3rd ed.). Moorabbin, VIC: Hawker Brownlow Education.
- Damasio, A. (1994). Descartes' error: Emotion, reason, and the human brain. New York: Putnam.
- —. (2003). Looking for spinoza: Joy, sorrow, and the feeling brain. London: Harcourt.
- Daniels, H., Cole, M., & Wertsch, J. V. (2007). *The cambridge companion to Vygotsky*. Cambridge, NY: Cambridge University Press.
- Denzin, N. & Lincoln, Y.S. (2003). *The landscape of qualitative research: Theories and issues.* London: Sage.
- Dewey, J. (1997). How we think. Mineola, NY: Dover Publications.
- Doidge, N. (2007). The brain that changes itself: Stories of personal triumph from the frontiers of brain science. New York: Viking.
- Doll, W. E. (1993). *A post-modern perspective on curriculum*. New York: Teachers College Press.
- Doll, W. E., & Gough, N. (Eds.). (2002). *Curriculum visions*. New York: Peter Lang.
- Egan, K. (2005). *An imaginative approach to teaching*. San Francisco, CA: Jossey-Bass.
- —. (1997). The educated mind: How cognitive tools shape our understanding. Chicago: University of Chicago Press.
- —. (2002). Getting it wrong from the beginning: Our progressivist inheritance from Herbert Spencer, John Dewey, and Jean Piaget. New Haven: Yale University Press.
- —. (2008). The arts and tools of learning. Arts & Learning Research Journal, 24(1), 1-22.
- —. (2008). Learning in depth. Educational Leadership, 66(3), 58-63.

- Egan, K., & Judson, G. (2009). Values and imagination in teaching: With a special focus on social studies. *Educational Philosophy & Theory*, 41(2), 126-140.
- Egan, K. & Nadaner, D. (Eds.). *Imagination and Education*. New York, Teachers College Press.
- Eisner, E. (2002). *The arts and the creation of mind*. New Hven, CT: Yale University Press.
- —. (2009). What education can learn from the arts. *Art Education*, 62(2), 6-7
- Eisner, E. W. (1979). The educational imagination: On the design and evaluation of school programs. New York: Macmillan.
- —. (2003). Artistry in education. *Scandinavian Journal of Educational Research*. 47(3), 373.
- —. (2008). The misunderstood role of the arts in human development. In B. Z. Presseisen (Ed.), *Teaching for intelligence*. (pp. 111-122)
- Evans, J., Davies, B., & Rich, E. (2009). The body made flesh: Embodied learning and the corporeal device. *British Journal of Sociology of Education*, 30(4), 391-406.
- Florida, R. (2003). The rise of the creative class: And how its transforming work, leisure, community and everyday life. North Melbourne, VIC: Pluto Press.
- Gajdamaschko, N. (2005). Vygotsky on imagination: Why an understanding of the imagination is an important issue for schoolteachers. *Teaching Education*, *16*(1), 13-22.
- Glazer, S. (Ed.). (1999). *The heart of learning: Spirituality in education*. New York: Penguin Putnam.
- Goleman, D. (1998). Working with emotional intelligence. New York: Bantam Books.
- Greene, M. (1995). Releasing the imagination: Essays on education, the arts, and social change. San Francisco: Jossey-Bass.
- Harris, P., L. (2000). *The work of the imagination*. Carlton, Victoria, Australia: Blackwell Publishing.
- Hedley, D. (2008). *Living forms of the imagination*. New York: T & T Clark International.
- hooks, b. (2003). *Teaching community: A pedagogy of hope*. New York: Routledge.
- Immordino-Yang, M., & Damasio, A. (2007). We feel therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain & Education*, 1(1), 391-406.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.

- Jones, R., A., Clarkson, A., Congram, S., & Stratton, N. (2008). *Education and imagination: Post-jungian perspectives*. London and New York: Routledge.
- Kearney, R. (1988). The wake of imagination. London: Routledge.
- —. (1998). *Poetics of imagining: Modern to post-modern*. New York: Fordham University Press.
- Lather, P. (1991). *Getting smart: Feminist research and pedagogy within the postmodern*. New York: Routledge.
- LeDoux, J. E. (1996). *The emotional brain: The mysterious underpinnings of emotional life*. New York: Simon and Schuster.
- Leonard, T., & Willis, P. (Eds.). (2008). *Pedagogies of the imagination*. The Netherlands: Dordrecht.
- Luria, A. R. (1971). Towards the problem of the historical nature of psychological processes. *International Journal of Psychology*, 6, 259-272.
- Luria, A. R. (1976). Cognitive development: Its cultural and social foundations. Cambridge, MA: Harvard University Press.
- Neville, B. (1989). *Educating psyche: Emotion, imagination, and the unconscious in learning.* Melbourne, VIC: Collins Dove.
- Nielsen, T. (2004). Rudolf steiner's pedagogy of imagination: A case study of holistic education. New York: Peter Lang.
- Noddings, N. (1997). Must we motivate? (chapter 3). In N. C. Burbules, & D. T. Hansen (Eds.), *Teaching and its predicaments* (pp. 29-43).
- Oberman, I. (2007). Learning from Rudolf Steiner: The relevance of Waldorf education for urban public school reform. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, (April 2007). ED498362.
- Pashler, H., Gallistel, R., Pashler, H., & Gallistel, R. (Eds.). (2002). Steven's handbook of experimental psychology. Hoboken, NJ: John Wiley & Sons Inc.
- Presseisen, B. Z., & Presseisen, B. Z. (Eds.). (2008). *Teaching for intelligence*. (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Robinson, K. (2007). *Out of our minds: Learning to be creative.* New York: Wiley-India.
- Ray, P.H. & Anderson, S.R. (2000). *The cultural creatives*. New York: Harmony Books.
- Sacks, O. (1986). *The man who mistook his wife for a hat*. London: Pan Books, Picador.
- Schafe, G. E., & LeDoux, J. E. (2002). Emotional plasticity. In H. Pashler, & R. Gallistel (Eds.), *Steven's handbook of experimental psychology, vol.3: Learning, motivation, and emotion.* (pp. 535-561)

- Scharmer, C. O. (2007). Theory U: Leading from the future as it emerges: The social technology of presencing. Boston, MA: Society for Organizational Learning.
- Schulman, L. S. (2004). *The wisdom of practice: Essays on teaching, learning, and learning to teach.* San Francisco, CA: Jossey-Bass.
- Senge, P. M., Scharmer, C. O., Jaworski, J., & Flowers, B. S. (2004). Awakening faith in an alternative future. *Reflections*, *5*(7), 1-11.
- Senge, P. M., Scharmer, C. O., Jaworski, J., & Flowers, B. S. (2005). *Presence: Human purpose and the field of the future.* London: Nicholas Brealey.
- Shulman, L. S., & Shulman, J. H. (2004). How and what teachers learn: A shifting perspective. *Journal of Curriculum Studies*. *36*(2), 257-271.
- Slaughter, R. (2004). *Futures beyond dystopia: Creating social foresight*. Routledge, London.
- Smith, G. A., & Williams, D. R. (Eds.). (1999). *Ecological education in action: On weaving education, culture, and the environment.* Albany, NY: State University of New York.
- Sousa, D. A. (2001). How the brain learns: A classroom teacher's guide. (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Starko, A. J. (Ed.). (2005). Creativity in the classroom: Schools of curious delight. (3rd ed.). Mahwah, NJ: Lawrence Eribaum Assiciates Publishers.
- Stone, M. K., & Barlow, Z. (Eds.). (2005). *Ecological literacy: Educating our children for a sustainable world*. San Francisco, CA: Sierra Club Books.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Warnock, M. (1976). *Imagination*, Faber & Faber: London.
- Wilber, K. (2000). *Integral psychology: Consciousness, spirit, psychology, therapy*. Boston, MA: Shambala Publications.
- —. (2007). The integral vision: A very short introduction to the revolutionary integral approach to life, god, the universe, and everything. Boston, MA: Shambala Publications.
- Willis, G., & Schubert, W. (Eds.). (1991). Reflections from the heart of educational inquiry: Understanding curriculum and teaching through the arts. Albany, NY: State University of New York.
- White, A. (1990). The language of imagination. Oxford: Blackwell.
- Woods P., Ashley M., & Woods G., (2005). *Steiner schools in England*. Department for Education and Skills and University of the West of England, Research Report RR645, June 2005.