Philosophical Reflections on the Importance of a Values-Based Program of Environmental Education, with Special Reference to the Pedagogy of Empathetic Education

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Statement of Originality

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository, subject to the provisions of the Copyright Act 1968.
Acknowledgement

Few people, if any, ever write a doctoral thesis on their own. Without the help of my Primary Supervisor, Professor Ronald Laura, I would never even have commenced this work. I serendipitously overheard him presenting a luncheon address to his students in a restaurant, where I was working at the time, and I was deeply inspired by his engaging insights and charismatic way of expressing them. Having just completed the Master of Engineering at Newcastle University, I decided to enroll to do the Ph.D. under his supervision, and now that the journey is completed, I want to thank him for letting my mind flourish. He challenged my mind, and taught me to think imaginatively and rigorously. It is meticulous efforts to help me bring this thesis to fruition will never be forgotten.
Abstract

My aim in this thesis is to show that there exists a fundamental ‘moral tension’ between the ostensible goals of environmental education on the one hand and the politicization of China’s ideology of power and obsession with global economic dominance on the other. This moral tension is particularly evident in the case of the Chinese Three Gorges Dam Project (TGDP), where the unresolved collision of these conflicting value presumptions has led to massive ecological degradation on the one hand and issues of social injustice associated with population dislocation on the other. Although considerable engineering planning by the government has gone into the construction of what is claimed to be the most energy productive and largest dam project in the world, its horrific legacy of decimation to the surrounding land and water environments has been catastrophic. Similarly, the forced dislocation of so huge a population of local people (now called ‘reservoir refugees’, at least 1.3 million people based on the official figures) makes clear that the humanitarian ramifications of the TGDP were hopelessly unanticipated, or based upon epistemological presumptions which served to marginalize their moral importance.

The Three Gorges Dam (TGD) is politically applauded for several innovations, three of which I wish to draw to the reader’s attention. First, it is hailed as being the largest dam in the world, and second, it is touted as being capable of producing far more ‘safe’ energy than any of the other major dams scattered around the globe. Last but not least, it has unashamedly been exalted with pride as the most expensive construction project of any kind in the world. The question I pose is whether the price that has been paid and is still now being paid in terms of environmental destruction, humanitarian suffering, and ‘cultural genocide’ as I shall call it, are prices far too high to pay. Although the full environmental consequences and social justice issues raised by the TGDP have due to political reasons, not been teased out sufficiently in the Chinese public arena, I shall argue that the deleterious environmental and social impacts of the TGDP are incontestable and can better be understood as representing the inevitable outcome of a misguided epistemology of power and control driven by a political ideology within which values issues of social injustice, equity, and environmental stewardship have been irreversibly compromised. The main body of my thesis will be concerned to reflect critically on this moral tension between environmental education and the political epistemology and ideology of power which challenges it. Once this first major task has been completed, I will then propose a more comprehensive framework of theory and praxis grounded in an environmental pedagogy of ‘empathetic epistemology’ within which the moral issues raised can be treated with serious educational consideration and respect.

This thesis thus endeavors to provide a new vision of our relationship to nature which is sponsored on the epistemic insight that the spiritual quality of our own existence cannot be defined independently of the moral integrity of our relationship to nature.
Foreword

My intention in this Foreword is to provide some personal background within which the academic inspiration for my commitment to writing this Ph.D. thesis has been born. My formal academic training was initially in engineering science, with a specialty area in hydraulic engineering, associated with the effective planning, construction and ultimate management of dam resources for municipal water supplies and agricultural purposes. For 13 years I worked in China as a project manager and as a team member in dam construction and water utilization projects. My professional work was very technical, highly mathematical and almost purely quantitative.

Becoming more interested in some of the qualitative dimensions of my work, I took up an opportunity to complete a Master in Engineering at the University of Newcastle, and I was most pleased that the course provided some basic qualitative discussion of a number of philosophical matters of relevance to my profession. About the time I finished my M.Eng degree in 2007 at the University of Newcastle, I was almost convinced that my academic study had come to an end. Having taken up part-time work in a nearby Chinese restaurant, however, where Professor Ron Laura from the University of Newcastle regularly brought his postgraduate students for luncheon seminars, it soon became clear to me that my academic study was far from over. On one particular occasion Professor Laura spoke to the group about one of his recently published environmental philosophy books, *Technology and Nature in Harmony*. Although there were at the time a number of words I never heard before, I was virtually spellbound by the fascinating philosophical ideas he brought to the attention of his students. I found his way of thinking not only extremely engaging but also intensely challenging. The truth is that I found it difficult to stop thinking about several of his ideas and found myself reflecting on how relevant they were to my profession and to the importance of gaining a deeper understanding of the qualitative issues that were sadly neglected when I was trained as an engineer. I soon purchased a copy of his book and was eventually brave enough to ask him a few questions the next time he came in. The few questions and that particular book served to inspire many questions to be asked and the relentless search for many books of his and others to be read.

Before becoming familiar with Professor Laura’s research, my previous concerns about the Three Gorges Project related to the technical engineering required to bring it to fruition. After having read a number of relevant books and discussing these with Professor Laura in relation to his work in environmental philosophy, I have never looked at water dam construction in the same way. My Ph.D. research is about this new way of educational considering the foundations of my professional work, while also analyzing the presumptions underpinning the educational practice in which I and most engineers, at least in China, have been trained. Appreciative of my sincere interest in the philosophy of environmental education, Professor Laura kindly invited me to sit in on his weekly postgraduate seminar series, not only to meet other students researching in the field, but to help me acquaint myself more rigorously with the scholarly literature and the fundamental epistemological concepts being deployed and debated. Once I attended these seminars for the full year, I agreed to present a paper to his students (somehow managing to survive the critical discussion with my then limited skills in English) and came away feeling confident enough to enroll in the Ph.D. program in the Newcastle School of Education. Professor Laura has been my Principal Supervisor, along with Dr. Tom Griffiths, then Deputy Dean of Research who has filled the role of Co-Supervisor. I have benefitted tremendously from their excellent supervision and I have throughout my candidature found Professor Laura’s weekly seminar series for his postgraduate students, along with the availability of his extensive publications and tutorials, to be an abundant source of rich insight and challenging critical reflection. I am most grateful to him for this unique learning experience, and it is to be hoped that I can one day in my own teaching give of my ideas and time to my students as graciously and effectively as he has done for me.
Introduction

Having set the context for my academic journey, I can now be specific about the nature of my doctoral research and I shall now do so in the introduction that follows. It is the central contention of my thesis that there exists a fundamental ‘moral tension between the value-orientated goals of environmental education on the one hand and the value-laden objectives which define Chinese politics and the engineering pedagogy which derives from it on the other. This moral tension is particularly evident in the case of the Chinese Three Gorges Dam Project (TGDP), where the collision of conflicting value presumptions has given rise to growing concern about its legacy of massive ecological disruption on the one hand and allegations of human rights violations associated with forced population dislocation on the other. Although considerable engineering planning has gone into the construction of this largest dam project in the world, the horrific decimation of its surrounding environment and the concomitant dislocation of so huge a population of local people (now called ‘reservoir refugees’, well in excess of 1 million) makes clear that the ethical consequences of the Project were hopelessly unanticipated, or based upon epistemological presumption which served to marginalize their moral importance.

To establish this argument, my thematic analysis will be divided into three parts. My initial objective in the first section will be to provide a technical account of the magnitude of the actual building project associated with the Three Gorges Dam. Consideration will be given to the aims and expectations of the project, the material resources required for its production, and the success it currently enjoys in being hailed as the most powerful energy and directive waterway control plant in the world. In this first section of the thesis, we shall also consider the evolution of the protracted debate behind the eventual decision to approve the TGDP. Consideration will be given to the multifaceted rationale for the TGDP and we shall see how the concept of ‘engineering efficiency’, grounded in the politics of power epistemology, becomes the defining value for the measure of the success of the Project.

Once this first part of the thesis is completed, I will then in the second section address the philosophical, ethical and humanitarian issues raised by the massive environmental disruption that has resulted from erecting so intrusive and extensive a structure on the face of the earth. My burden in this second section of the thesis will be to reflect upon the environmental devastation of the dam and the humanitarian problems caused by the unprecedented dislocation of in excess of 1 million reservoir refugees. In this second section I argue that the issues of environmental philosophy and social justice cannot be resolved without understanding the extent to which the TGDP is underpinned by a paradigm of knowledge in which knowing is itself a form of power and control which leaves little or no primary rationale for moral reflection on the consequences of its construction. Put simply, my argument here is that the aetiology of the environmental and humanitarian problems caused by the construction of the Three Gorges Dam is in part a philosophical one. To put it differently, if our philosophy of nature is morally misguided, then our interactions with and attitudes to nature will themselves already evince a misunderstanding of man’s place in nature. To establish this claim, I will elaborate, develop and exhibit the relevance of Professor Ron Laura’s critique of the ‘Epistemology of Power’ for comprehending subtleties of politicized ideological persuasion involved in the TGDP debate (Laura & Cotton, 1998; Laura et al., 2010). According to Laura, the dominant epistemological framework of the West is underpinned by the socio-cultural obsession of the western world with power, which by its very nature corrupts our relationship to the world around us and each other. I shall endeavor to establish that the TGDP is an example of one way in which the eastern mindset has succumbed to this temptation by parading its own technologies of power, as a symbol of modern
China’s success. Driven by this preoccupation with power both the West and the East literally structure modalities of knowing the world which ensure that a gain in knowledge is tantamount to a gain in power by way of the advantages or practical benefits gained by what is known. In this sense the commitment to the epistemology of power as the dominant paradigm for conceptualizing the world entails that the very act of ‘knowing’ exemplifies the extent to which our technologies have been used to grant us a measure of power over it. This process in turn gives the impression that as our technologies improve, so do our chances of being more successful at dominating and controlling everything in the world around us. The more successful we become at dominating the world, that is to say, the more convinced we are that we have gained control of it; and the more control we are able technologically to exercise, the more secure we think we have made ourselves. I shall argue that although the epistemology of power may afford the merchants of vested interest a measure of security through power, it is in the long term a false sense of security which comes at too high a cost. The egregious environmental damage and human harm which has resulted from the mammoth intrusion into centuries-old communities and the earth upon which they have been built and developed illustrates poignantly the deleterious ramifications of a philosophy of nature corrupted by power-hungry epistemology.

Once I have elaborated the theoretical foundations of Laura’s critique of power epistemology, my aim will then be to show how certain of his ideas can be extrapolated and extended to the discourse of engineering pedagogy as made manifest in the planning and development of the Three Gorges Dam Project. I shall argue that the moral tension between the ostensible goals of environmental education on the one hand and technological interventions in the name of progress on the other arises significantly in the case of the Three Gorges Project from misguided epistemological presumptions which are then politicized to promote vested interests. To put it differently, the ideological corruption of engineering pedagogy within which the Three Gorges Project was planned and executed relied upon epistemic presuppositions which dictate that precedence be covertly given to the value of dominance and control as the primary ways in which we should interact with nature and define our relationships with each other. Part of my aim in this second part of the thesis is to show that these values implicitly contradict the environmentally educational goal of what I shall ‘ecological honoring’.

In the final section of my thesis I will be concerned to show that the concept of knowledge as power has, particularly in the western world, enjoyed a monopoly on knowledge which is not justified sufficiently by its deleterious impacts on people and the planet. Upon reflection, however, it becomes clear that although ‘power epistemology’ is one way of knowing the world, it is not the only way. In three of his most recent books, Professor Ron Laura has been developing a competing theory of knowledge which provides an alternative perspective to ‘power epistemology’. I shall argue that Laura’s theory of ‘empathetic epistemology’, as he titles it, can be utilized with appropriate amendment as a foundational framework for challenging and reconceptualizing the epistemology of power within the context of environmental education. Once this conceptual framework is built adequately, the task of reconceptualizing engineering pedagogy in ways which enshrine the importance of empathetic connectivity can be initiated. From this it follows that the articulation of new epistemic principles of orientation within general educational practice will serve to encourage us to discern our relationship with and stewardship of the world differently. This makes it for more difficult to embrace the politics of power epistemology without moral reflection on the consequences its technological impositions upon nature. This being so, the values mediation of environmental education can foster an alternative epistemic foundation whose technological intrusions can more effectively be grounded in a discourse of moral reflection, thus facilitating a new understanding of the ethical and ecological ramifications of engineering praxis itself. From this it follows that
engineering planning decisions can be made within the framework of moral perspectives which maximally protect humanitarian values and rights, while also ensuring a greater degree of ecological stewardship and sustainability.