A PSYCHOLOGICAL PERSPECTIVE ON ENVIRONMENTAL ISSUES AND THE EDUCATION OF ACCOUNTANTS

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Introduction

This article examines how psychology and psychological instruments can be used to improve pedagogy in environmental accounting education. Previous literature on accounting for environmental issues is both extensive and multifaceted, but it is not the main focus of this short article. Our purpose is to bring psychology to the forefront and show how it can be utilised in accounting education and environmental issues. Researchers such as Mathews (1997), Parker (2005) and Gray (2002), who have provided extensive summaries of environmental accounting research, fail to mention or explore psychological aspects in any depth. This could be important as it offers a psychological perspective that provides a foundation for exploring environmental accounting, given that it involves a different mode of thinking. The aim therefore, is simply to draw attention to this apparent gap in the literature – a blind spot which hides the potential importance of a psychological perspective.

Psychology and environmental accounting education

Guilford (1946, p.19) defines psychology as “the science of mental activity of living organisms, with an emphasis upon the individual as its natural unit. Mental activities are distinguished from others by the fact that they tend to unify or integrate the individual, and refer to the interplay between the individual and his/her environment.”

Gray et al. (2001, p.94), well known authors in environmental accounting literature, suggest that “the primary resistance to new, critical and reflective issues – including environmental issues – is not institutional or structural but psychological”, but do they do not explore this issue further.

To illustrate this point, Gray et al., (2001) suggest the principle reasons why students choose to study an optional Social and Environmental Accounting (SEA options) course. The results are shown in Table 1 below.

A number of the questions reported in Table 1 contain I and me statements. From the data provided, we could suggest that those who have selected the non-SEA option, have taken a self-interested approach, or accepted the approach to accounting for the environment espoused by the profession. By way of example, the fifth ranked reason for selecting a non-SEA option was “will help my career” while this reason fell to rank 14 out of 26 for those undertaking the SEA option. Does this suggest that students do not value the SEA option or that they believe the profession does not value it?
Table 1: Principal reasons given for choice of option

<table>
<thead>
<tr>
<th>Reasons Given</th>
<th>Choosing non-SEA Option</th>
<th>Choosing SEA Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Rank (N)</td>
</tr>
<tr>
<td>Relates to an area I want to know about **</td>
<td>3.83</td>
<td>1 (94)</td>
</tr>
<tr>
<td>Will expand my education</td>
<td>3.73</td>
<td>2 (89)</td>
</tr>
<tr>
<td>Is potentially important to me **</td>
<td>3.72</td>
<td>3 (93)</td>
</tr>
<tr>
<td>Should be interesting</td>
<td>3.71</td>
<td>4 (91)</td>
</tr>
<tr>
<td>Will help my career **</td>
<td>3.64</td>
<td>5 (92)</td>
</tr>
<tr>
<td>Addresses ethical issues**</td>
<td>2.49</td>
<td>24 (59)</td>
</tr>
<tr>
<td>Will make me think</td>
<td>3.45</td>
<td>9 (86)</td>
</tr>
</tbody>
</table>

Source: Gray et al., (2001, p.92) Table 5.1 (Italics added)

What is the purpose of an accountant’s education?

The Institute of Chartered Accountants in Australia takes a pedagogical approach with the aim of developing adaptable professionals who can think and analyse strategically and possess communication and problem solving skills. The idea is that graduates are effective in a wide variety of fields (ICAA, 2006).

Four ways to think about the education of accountants

We need to ask then how do we view this pedagogical approach and the teaching of environmental accounting? There are a range of definitions for pedagogy in the general literature. Leach and Moon (1999) distinguish between teaching, which is setting questions to be answered, providing explanations and organising classroom layouts, as opposed to the science of pedagogy, which is informed by the way we view the mind. Are teaching and pedagogy the same? Alexander (2001) suggests that we need to distinguish between the two and that they should not be used interchangeably. Alexander postulates that teaching involves an act, and that pedagogy is an act and discourse - pedagogy is more than teaching. Educational reform has been advocated for decades (Dillard and Tinker, 1996; Briloff, 1990; Craig, 2002; Sikka et al., 1995). Tinker and Koutsoumadi (1997), for example, talk about the ‘commodification’ of the education of accountants and Friedman and Lyne (2001) talk of the creation of a ‘beancounter stereotype’ in the profession. Bruner (1996) argues that we need a paradigm shift to change not only pedagogy theories, but also to embrace different types of learning styles, cater for different mind sets, and the four ways we view students. These four views of
students are as: (i) empty receptacles; (ii) apprentices in thinking; (iii) sophisticated knowers; and (iv) collaborative thinkers (adapted from Coffield et al., 2004).

It is these last two interpretations, viewing students as either sophisticated knowers or collaborative learners, where psychology may offer a method to students, to gain an insight into their own minds and those of others, and to see the distinction between the two. It is a concern that the current educational curriculum/environment, guided by the professional accounting bodies, sees student as receptacles for deposits of procedural information (Sikka et al., 1995).

It could be argued that the primary educational aim is the student’s intellectual development, which could be addressed by reflection, analysis and reasoning to extend teaching beyond shallow learning of facts and figures, rules and procedures. We advocate that this should be complemented by the introduction of psychology to define how students specifically make decisions and communicate and become aware of issues such as the environment.

**Psychology and psychological instruments**

Psychology offers 1) a broad range of theories about the nature of the self; human personality and 2) a variety of theories about learning styles; including instruments to assess these.

For example, personality has been defined in over 50 ways in the psychology literature but it can (perhaps) be best thought of as either the ‘I’ or “me” that is at the centre of the individual’s self-experience, or the impression that one gives to others (Engler, 2003).

Having knowledge of personality may assist us in developing sophisticated knowers and collaborative thinkers. In general, it could be argued that the more complex and variable the parameters of personality available to a student, the more sophisticated will be their capacity for knowing. They may be better able to discern how they view the environment, its importance and priority to themselves. But what do we know about the personalities of students (in this instance, students of environmental accounting), and how well these have been measured?

There are many psychological instruments available to measure self-reported personality. Of these, the most popular in recent years has been the Myers-Briggs Type Indicator (MBTI), there being approximately 20 publications in which this instrument is used in accounting research (Briggs et al., 2006). However, as there have been 2000 or so applications in other disciplines, the Indicator is still somewhat under-researched in accounting (Wheeler, 2001). The MBTI measures personality preferences along four dimensions (or, to put it another way, preference choices between four pairs of opposite personality parameters). These dimensions are detailed in Table 2. All represent normal, healthy choices and the MBTI does not have the unhelpful dimension of mental abnormality which other psychological instruments include. The NEO-PI-R for instance, includes a measure for ‘neurosis’ which is not relevant for these studies.

The first three dimensions are based upon the personality theories of the Swiss psychiatrist and psychologist Carl Jung (1960), while the last (JP) is a dimension added by the creators of the MBTI (Myers et al., 1998).
Table 2. Dimensions of Personality measured Using the Myers-Briggs Type Indicator.

<table>
<thead>
<tr>
<th>E-I</th>
<th>Extraversion-Introversion</th>
<th>Does the subject live in and derive energy from the outer or the inner world? Are they sociable or inward-looking?</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-N</td>
<td>Sensing-Intuition</td>
<td>Does the subject prefer data/facts or ideas? Do they focus on the here-and-now or take a helicopter perspective?</td>
</tr>
<tr>
<td>T-F</td>
<td>Thinking-Feeling</td>
<td>Does the subject make decisions on the basis of logic or of values? Is the bottom line rationality and fairness, or the needs of people?</td>
</tr>
<tr>
<td>J-P</td>
<td>Judging-Perceiving</td>
<td>Does the subject like to foreclose on decisions or do they prefer to keep things open and bring up new ideas?</td>
</tr>
</tbody>
</table>

From the table above the most likely personality typology to be concerned with the environment would be an ENFP

E Means that the individual sees the outer world as being the most important one (of which the environment is part of).
N Means the individual is likely to respond to visionary approaches or have a future orientation (saving the environment for future generations).
F Means the individual considers values and human (emotional) needs to be very important (the environment can be an emotional issue).
P Means a general openness - e.g. to ideas or new ideas and approaches (would be willing to embrace a new approach on how to account for the environment).

ISTJ personality types are unlikely to be concerned with the environment

Briggs et al., (2006) find that studies using the MBTI, have tended to paint rather a gloomy picture of the educational possibilities of students of accounting, and of their potential ability to meet current and future challenges, including environmental and social challenges, within the profession. The results of their study over five years show a large preference for STJ of between 35.2 and 45.9 percent. More specifically, the use of the MBTI has consistently, over many decades and in many circumstances, produced the same results. It has been applied to practicing accountants and accounting students and demonstrates a strong preference for sensing, thinking and a judging orientation (STJ) (Jacoby, 1981; Laribee, 1994; Wolk and Nikolai, 1997; Schlomer and Schlomer, 1997; Kovar et al., 2003). Is this a personality type empathetic with environmental concerns?

It would appear that we are still not preparing accountants to meet the challenges of the 21st century, one of which is the environment and how to account for it. Boyce (2004 p.566) suggests that “Contemporary university activity is increasingly centred on the narrow goals of preparing students for work and meeting the needs of business for trained workers”. The recruitment of accounting students with an
orientation towards human and environmental values, towards overview and towards openness does not appear to be taking place. But the important word here is ‘appear’. Greater depth of analysis could mean that things may not be as bad as they seem. Application of the MBTI could help point to some of the reasons these challenges are not being met, and uncover the potential for interest in the environment amongst potential accountants.¹

**Conclusion**

This paper identifies that psychology has been somewhat neglected when looking at accounting education and environmental issues. For example, we can find evidence of no research that uses psychology to explore issues in environmental accounting. This leads to a number of related questions. Why has psychology been somewhat neglected in accounting education? Why has psychology been neglected when exploring environmental issues? Why has the sense of self not been explored using psychological instruments such as the MBTI?

While the accounting profession attempts to develop well rounded and adaptable professionals, able to function in a wide variety of fields, are students able to develop these attributes without considering the “I” and “me” that psychology views as the centre of their self-experience. Psychology could be utilised to develop this self-understanding allowing students to evolve into the sophisticated knowers and collaborative learners capable of dealing with new, critical and reflective issues of which the environment is a key one.

**References**


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¹ An issue not discussed in this brief paper but of considerable importance is that care needs to be exercised when using a psychology instrument. The MBTI measures how the subject regards their overall personality preferences in one place at one moment of time. While it does provide a greater aid to self-understanding for some of those who have taken the MBTI, it does not measure the potential for change. An instrument that measures this change across different situations, is the TBI instrument developed by the authors in an article ‘Mind the Gap: Accountants at Work and Play’ (Haynes et al., 2006)


Jung, C.G., 1960, Interviewed by John Freeman in Face to Face (London: BBC Television).


Tinker, T., and Koutsoumadi, A., 1997, ‘A Mind is a Wonderful Thing to Waste: Think Like a Commodity become a CPA’, *Accounting, Auditing and
**ENVIRONMENT EXTRA!**

**SHOW ME THE MONEY – GLOBAL INVESTMENT**

(UNEP, 2006) The UN Environment Programme’s Finance Initiative (UNEP FI) and 14 of the world’s largest investment companies have prepared a report that confirms the growing importance of environmental, social and governance concerns to the global investment industry. The 47-page report draws on work by a group of leading financial institutions and considers the impact of qualitative and new risk issues on company value. Industries covered include the auto-industry, aerospace and defence, the media, and the food and beverage industries.

*Source of full publication:*  

**SHOW ME THE MONEY – OFFICES AND STORES**

Renewable energy and offices and stores are examined by the World Resources Institute in their Report ‘Switching to Green. A Renewable Energy Guide for Office and Retail Companies’ (October 2006).

The Report contains a simple five-step process relating to the purchase of green power:
- Identify goals - a discussion of the business case for buying renewable energy
- Explore delivery options
- Investigate cost-saving strategies
- Purchase green power - a breakdown of how to buy renewable energy, including gathering the data needed, finding the suppliers, getting quotes and signing the contract, and
- Calculate carbon benefit – accounting for the greenhouse gas emissions avoided.

Different renewable energy sources, including nuclear, can contribute to greenhouse gas reduction. There are risks and environmental and social impacts associated with all of the different energy options – for example do people really like to see those wind farms atop every pinnacle – the World Resources Institute Report will help organizations think these risks and benefits through, in a way which guides their implementation, rather than through rhetoric.