Developing Geographical Wisdom: Post-formal Thinking About, and Relating To, the World

Abstract
Geographical Education has been charged with a major responsibility for 'delivering' Education for Sustainable Development (ESD) and Global Citizenship (GC) in the UK (DfEE and QCA 1999; Grimwade, Reid et al. 2000) and, as this journal demonstrates, geography has an important role internationally (Houtsonen 2002; Haubrich 2000; Stoltman and Lidstone 2001; Lidstone and Stoltman 2002; van der Schee 2003). These two interrelated approaches to education are here interpreted as demanding the dual development of environmental and social/intercultural concern which are both, in turn, predicated on non-reductive conceptions of justice, moral relevance and compassionate identification. Neo-Piagetian formulations of developmental and transpersonal psychology suggest that the development of ever-widening horizons of concern may occur across the lifespan as a person passes through increasingly sophisticated or 'higher order' cognitive phases and as such a person achieves an ever-deepening experience of 'being-in-the-world'. The term ‘wisdom’ is presented as a useful metaheuristic to describe the ideal end point or ‘stage’ of such a process. Furthermore, the term ‘Geographical Wisdom’ is presented to describe wisdom as it applies to sustainable development and global citizenship, both inherently geographical concepts. Thus Geographical Wisdom refers to the realisation of a mode of ‘being-in-the-world’ in which multidimensional (critical, creative & caring) thinking is stimulated by, and applied to, a world that is expansively (deeply and richly) perceived, valued and identified with. The realisation of ‘Geographical Wisdom’ should be seen as a goal of transformative Geographical Education.

Key words: sustainable development; global citizenship; wisdom; Geographical Wisdom; developmental psychology

Introduction
This paper emerges from an ongoing PhD conceptual research project driven by both professional and personal motivations. From a professional perspective, the research seeks to respond to the call for theorists and practitioners to “develop new ecological paradigms for lifelong learning and human development” (Blewitt 2004). Specifically, this ongoing research attempts to establish the possible conceptual implications for transformative and relational formulations of Education for Sustainable Development (ESD), Education for Global Citizenship (GC) and Geographical Education of recent

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1 Sustainable Development is taken to be an inherently geographical concept since environmental, social and economic issues cannot be considered apart from their real world contexts or places; similarly, Global Citizenship is an inherently geographical concept since issues of intercultural dialogue and understanding, attitudes toward places other than the home locality, are all shaped by societal forces across a range of spatial scales
insights from developmental and transpersonal psychology. The other motivation is the desire to develop a personally authentic Global (encompassing all perspectives/cultures) ‘worldview’ and mode of ‘being-in-the-world’. Once again, this draws on theorising from developmental and transpersonal psychology as well as philosophical and even religious traditions in order to explore what this goal might entail. This latter project is inherently geographical since the world represents the principle context of enquiry and arena for action. Such personal research involves conceptual or intellectual work but also demands unashamed attention to the deeply personal experiential/phenomenological and indeed transpersonal dimensions of life. However, for the present purposes space precludes a discussion of this dimension of ongoing research. The conceptual research draws heavily on the work of others who have made pioneering efforts to undertake ‘reconstructive postmodernism’ (Griffin 1988) i.e. weaving together a range of perspectives to arrive at an ‘integral vision’ (Wilber 1997). Many of these efforts appear to be converging towards a broadly similar ‘integral philosophy of development’ and which, in educational terms appears to represented by an emerging ‘integral transformative learning’ paradigm (O’Sullivan 1999; O’Sullivan, Morrell et al. 2002; O’Sullivan and Taylor 2004). The emerging PhD Thesis which forms the background of this article can be seen as falling within this movement. This emerging paradigm is inter-disciplinary and, it is hoped, capable of encompassing insights (conceptual and empirical) from all traditional (pre-Modern), established (Modern) and emerging (post-Modern) perspectives to provide a coherent vision or meta-schma. Once again, space precludes a detailed exposition of the emerging theoretical position but this paper will focus on early conclusions regarding transformative formulations of Education for Sustainable Development (ESD), Global Citizenship (GC) and Geographical Education.

ESD and GC are now significant, yet contested, features of some education systems worldwide and geographical education is being given a pre-eminent role in their delivery as witnessed by recent articles in this journal (see e.g. Houtsonen 2002; Haubrich 2000; Stoltman and Lidstone 2001; Lidstone and Stoltman 2002; van der Schee 2003). This is particularly the case in the UK in terms of the so called ‘New Agenda’ of the current National Curriculum - NC2000 (Grimwade, Reid and Thompson 2000). The rhetoric often suggests that ESD and GC are broad and interrelated approaches to education that together imply exploration of the themes of environmental and social/intercultural concern. Indeed, within Wales the phrases are often inextricably linked in official devolved governmental documents to generate the somewhat clumsy but useful phrase ‘Education for Sustainable Development and Global Citizenship’ (ESDGC) to highlight this fact (ACCAC 2002). However, there is by no means a consensus in the UK, never mind internationally, as to what ESD and/or GC actually mean, nor that it is a given that these two approaches should make common cause. At the

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2 ‘Transpersonal psychology’ may be contrasted with ‘intrapersonal psychology’ (which focuses on the psychology of individuals) and ‘interpersonal’ or ‘social psychology’ (which focuses on the people in social contexts). Transpersonal psychology is concerned with the human relationships with the ‘more-than-human’ realm (such as Nature)

3 The Heideggerian term used in existential phenomenology to refer to the emplaced nature of human existential concerns

4 This is in contrast to a ‘deconstructive postmodernism’ which denies the possibility of any meta-narrative and valuation system and risks supporting extreme relativism and nihilism (Griffin cited in O’Sullivan, E. (1999), Transformative Learning: Educational Vision for the 21st Century: Zed Books.
risk of caricature, amongst practitioners who describe themselves as involved in the fields of ESD and/or GC there are those whose work remains almost exclusively focused upon environmental themes (e.g. global warming) and there are others who are equally focused upon development themes (social justice, human rights etc.) one might be forgiven for thinking these represent opposing camps partitioned along the historical environmental education (EE) and development education (DE) lines. Furthermore, there appears to be a further distinction within these ‘camps’ between relative materialists (those subscribing to the dominant scientific paradigm of materialism) versus those who acknowledge an important role for the cultural and even spiritual dimension, and between relative anthropocentric and more eco/biocentric formulations, with each subcamp being at loggerheads with the ‘opposition’.

This article draws on theorising in the field of developmental psychology and philosophy to argue that more transformational (as opposed to merely reformist) formulations of ESD and GC which cross the EE/DE, material/spiritual and anthropocentric/biocentric divides are both desirable and possible. It is the contention of the author that this is possible since the same type of higher order thinking – post-formal (see below) - underpins, and represents the goal of, each respective transformative educational formulation which opens up the possibility that this level of thinking can be ‘transferred’ or applied across the boundaries between domains of concern. It is a further contention that efforts to promote the development of post-formal thinking is desirable for two inextricably related reasons: firstly, because this is the kind of thinking which is seen to be necessary to address the key challenges presented to us in the twenty-first century and beyond (environmental degradation, intercultural fellowship, spiritual fulfilment); and secondly because it represents an ideal endpoint of human development at both the personal and societal levels. A final contention is that efforts to develop post-formal levels of thinking are particularly appropriate within fields concerned with human-environment interaction and sustainability (such as geography, ecology, environmental sciences etc.), hence the particular relevance to this journal.

What is being advocated here is the development of a relational mode of ‘being-in-the-World’ in which multidimensional thinking (Lipman 2003) is stimulated by, and applied to, a world (incorporating both human and ‘more-than-human’ dimensions) that is expansively (deeply and richly) perceived, valued and identified with and, ultimately, served. The requirement is for the development of the type of thinking in which conceptions of justice, moral relevance and compassionate identification are extended from the merely parochial in the sense of the personal (egocentric); social (ethnocentric) and species (anthropocentric) to the transpersonal domain of ‘more-than-human’ world (Abrams 1997). Following recent work in developmental psychology (Staudinger and Werner 2003; Sternberg 2003) the term ‘wisdom’ is here used as a useful shorthand to describe this type of thinking (or level of consciousness). Using the language of development psychology, it may be more technically referred to as ‘postformal’ thinking (see below). The notion of ‘geographical wisdom’ is intended to convey the sense that constellation of issues encompassed by the notions of sustainable development and global citizenship are always and already geographical in nature and hence the requirement is to develop postformal thinking about, and relating to, the world. The significance of the relationship between the concept of ‘geographical wisdom’ as outlined above to education generally (especially given the increasing attention to thinking skills across the
Wisdom and Postformal Thinking: the perspective from developmental psychology

The concept of ‘wisdom’ was an important dimension of philosophical discourse up until the Enlightenment but with “the process of secularization, wisdom lost its salience as one of the fundamental categories guiding human thought and conduct” (Staudinger and Werner 2003). However, there is something of a resurgence in attention to ‘wisdom’ particularly in the fields of developmental psychology (Staudinger and Werner 2003; Sternberg 2003) and transpersonal psychology (Miller and Cook-Greuter 2000) which points to the importance of the human mind and its capacities for transformation leading to different modes of relating to, or ‘being and knowing’ in, the world. According to Staudinger and Werner (op cit) there are six universal characteristics of wisdom:

1) wisdom deals with important and/or difficult matters of life and the human condition
2) wisdom is truly superior knowledge, judgement and advice;
3) wisdom is knowledge with extraordinary scope, depth, and balance applicable to specific situations;
4) wisdom is used for one’s good and the good of others;
5) wisdom combines mind and character; and
6) wisdom is very difficult to achieve but more easily recognised

Box 1: Six characteristics of Wisdom common to different cultures and historical times (Staudinger and Werner 2003)

Similarly, Sternberg (Sternberg 2003) identifies six components of wisdom based on a study of college students:

- Reasoning ability
- Sagacity
- Learning from ideas and the environment
- Judgement
- Expeditious use of information
- Perspicuity

Sternberg (op cit p150) also identifies five components:
(a) rich factual knowledge (general and specific knowledge about the conditions of life and its variations), (b) rich procedural knowledge (general and specific knowledge about strategies of judgement and advice concerning matters of life), life span contextualism (knowledge about the contexts of life and their temporal [developmental] relationships), (d) relativism (knowledge about differences in values, goals, and priorities), and (e) uncertainty (knowledge about the relative indeterminacy and unpredictability of life and ways to manage)

(Sternberg 2003)
Clearly the term ‘post-formal’ is intended to characterise this level of thinking as transcending Piaget’s stage of ‘formal operational’ thinking. Thus the term implies a critique, to a lesser or greater extent, and extension of Piaget’s original theorising leading to either a ‘neo-Piagetian’ or a ‘post-Piagetian’ perspective depending on the extent of their critique. The most significant aspect of this critique, as indicated above, is the expected ‘end point’ of cognitive development and the age at which this might occur. For Piaget development was more or less completed for most people by adolescence when they reached the level of rational thought. For neo-/post-Piagetians, further development is possible for the remainder of the lifespan and, indeed, a significant, but largely ignored, phase of development is from late adolescence into adulthood i.e. the period ‘post-formal’ education. This can potentially give rise to a qualitatively different (and more adequate) mode of thinking than the ‘either/or’ or categorical logic of formal thinking in favour of reflective and dialectical (both/and, or relational) thinking. Other important criticisms of Piaget relate to the ethnocentric (White-Western), androcentric (male-focused), and logocentric (rational, universalistic and abstract thinking) biases apparently implicit in his work; and the rigid, invariant and universal linear sequence of stages to be passed through. Another key criticism of Piaget is his apparent lack of attention to factors beyond the individual transacting with the material world. Thus increasingly theorists and practitioners, following Vygotsky and others, are demonstrating the importance of interpersonal and social forces in thinking – specifically in the notions of the socially constructed nature of knowledge/understanding/meaning and ‘distributive cognition’ (Salomon 1993). This is giving rise to an extension of the idea of cognitive development and discrete ‘thinking’ stages beyond the level of the individual and an increasing emphasis in educational circles upon the development of skills of dialogic collaboration and argumentation.(Duh, Hirsch et al. no date).

Thus, according to some neo-Piagetian theorising, wisdom represents a post-formal level of thinking that is developed through the lifespan as a consequence of iterations between cognitive development and the incremental and ever varied experiences derived through transacting with the ‘lifeworld’ and the resources or ‘things’ therein: human, societal, artifactual and ‘more-than-human’ (nature). This development proceeds through increasingly sophisticated or higher order cognitive phases leading to ever-deepening experience of ‘being-in-the-world’ and more adequate modes of ‘being and knowing’. Most subscribers to the ‘post-formal’ perspective emphasize the importance of various kinds of integrations or balances in wisdom. At least three major kinds of balances have been proposed: among the various kinds of thinking [multiple intelligences] …, among various self-systems, such as the cognitive, conative [volitional], and affective …, and among various points of view”

(Sternberg 2003 [square brackets in original])

Kincheloe and Steinberg delineate the features and characteristics of post-formal thinking from their perspective which are summarised in box 2:

• Etymology – exploration of the forces that produce what the culture validates as knowledge
- The origin of knowledge
- Thinking about Thinking – exploring the uncertain play of the imagination
- Asking unique questions – Problem Detection

**Pattern** – the understanding of the connecting patterns and relationships that undergird the lived world
- Exploring Deep Patterns and Structures – uncovering tacit forces, the hidden assumptions that shape perceptions of the world
- Seeing relationships between ostensibly different things – Metaphoric Cognition
- Uncovering different levels of connection between Mind and Ecosystem – revealing larger patterns of life forces

**Process** – the cultivation of new ways of reading the world that attempt to make sense of both ourselves and contemporary society
- Seeing the world as text to be read
- Connecting Logic and Emotions – stretching the boundaries of consciousness
- Non-linear holism – transcending simplistic notions of the cause-effect process

**Contextualization** – the appreciation that knowledge can never stand alone or be complete in and of itself
- Attending to setting
- Understanding the subtle interaction of Particularity and Generalization
- Uncovering the role of power in shaping the way the world is represented

**Box 2: Features and characteristics of Post-formal thinking (adapted from Kincheloe and Steinberg 1999 pp62-81)**

**Epistemological Orders and Frames of Mind**

The term ‘conceptual schema’ refers in a general sense to the ‘pattern of mentation’ that generates a concept or, more globally, thoughts and patterns of thinking. From a developmental (specifically the neo-Piagetian) perspective, increasingly sophisticated levels of cognition result from ever more integrative schema and an increasing level of conscious awareness – or metacognition - of their ‘structure’. A variety of neo-Piagetian ‘stage models’ have been presented. Some remain firmly focused on one strand of development, such as the purely cognitive dimension (Reich 2002); moral development (Kohlberg and his successors); or spiritual development. Kegan (Kegan 1994) has presented a useful model which presents five qualitatively distinct epistemological stages or ‘orders of consciousness’ that can be applied to most if not all dimensions of thinking.
Figure 1. Reprinted by permission of the publisher from IN OVER OUR HEADS: THE MENTAL DEMANDS OF MODERN LIFE by Robert Kegan, pp. 314-315, Cambridge,
The diagrams used to exemplify the respective stages are very useful heuristics for revealing the increasing categorical content and systemic complexity as one ascends the developmental ladder. Thus, at level one a single category – the (possibly) pre-egoic (before the fully developed ego) subjective self begins to be discerned (indicated by the black dot). At level two other elements of the ‘lifeworld’ are discerned and integrated into a durable category – the ‘self’ or ‘mine’ which is, at this level, largely egocentric (indicated by the prevalence and centrality of the black dot). At level three durable categories other than the self – non-self – are discerned and become part of an expanded ‘horizon of concern’. At stage four a deeper underlying structure is discerned to the ever expanding durable categories through the operation of abstract thinking. This permits a logical system of thought to develop or rational perspective taking. However, this single rational perspective can be, and ideally is, challenged through the encountering of other equally rational, yet different, perspectives to one’s own. Level five represents a stage at which these different, and potentially paradoxical, perspectives can be accommodated within an expanded ‘multiperspectival’ and ‘trans-system’ type of rationality.

It should be noted that Kegan has related his ‘individual’ epistemological levels 3, 4 and 5 to ‘Traditionalism’, ‘Modernism’, and ‘Postmodernism’ respectively. This reflects a common tendency in some development psychology circles to relate individual stages to societal stages, a type of ‘ontogeny recapitulates phylogeny’ (or, in this case ‘individual thinking recapitulates the development of civilisation’) logic. The ‘Up from Eden’ hypothesis (Wilber 1996) and Spiral Dynamics (Beck and Cowan 1995) follow this same logic which is persuasive but replete with dangers, not least in terms of implying the relative superiority of one culture over another. Treated with caution however, it is useful for the present purposes, since it suggests that the postmodern critique of modernity probably has a basis in cognition in terms of a mismatch between one (higher order) epistemological perspective and another. A further distinction can be

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5 integrating several perspectives simultaneously
6 able to draw on several logical systems or disciplines
7 Wilber’s hypothesis is that human civilizations have undergone a sequence of stages during their development that broadly mirror an individual’s cognitive development through the lifespan. Thus Primal cultures were (and, problematically, are in the case of extant ones) broadly connected to the magical thinking stage of children whereas the period of modernity that emerged after the (Western) Enlightenment was (and is given that we still live with the legacy of this period) associated with ‘logico-rational’ thinking. Wilber suggests that as yet unrealized levels of civilization are possible when the application of ‘vision logic’ (similar to ‘post-formal’ levels of reasoning as presented here) are practiced by a significant proportion of the population. Wilber is at pains to stress, however, that not all members of a given society are operating at the same epistemological level so that there have always been ‘advanced’ individuals operating at a higher level than the majority; and equally individuals in ‘arrested development’ relative to their peers. Rather, the level of development reached by a society is a function of the mental ‘centre of gravity’ of the collective
8 Spiral Dynamics also presents a stage view of development applicable at both individual and societal levels. The different stages or ‘memes’ are provided with heuristic colours such as beige for hunter gatherer societies, red for societies/individuals operating in a worldview predicated on hierarchies of power and domination; green for post-modern relativism. Yellow represents the colour most closely corresponding with ‘post-formal’ as used here.
made, however, between a ‘postmodernism of deconstruction’ and a ‘postmodernism of reconstruction’ (Griffin 1988). The former represents the position which seeks to subvert the prevailing habitual and monolithic worldviews. However, a critique that ends in deconstruction will fall victim to the equally unsatisfactory position of extreme relativism and is ultimately self-defeating (the impossibility of meta-narratives being a dogma in itself). Thus a ‘postmodernism of reconstruction’ is called for in which a new ‘worldview’ arises from the old now transformed into one which is necessarily epistemologically plural, polysemous (capable of carrying several meanings), relational, and open (and hence always tentative, expansive and revisable) whilst at the same time permits value judgements to be made as to the relative (more or less) adequacy of different perspectives within the broader framework.

The latter position permits qualified relativism i.e. an acceptance of the relative truth validity of all perspectives, but the equally important recognition that, whilst never perfect, some perspectives – multiperspectival ones - are ‘more adequate’ than others. This is important since it provides judgement criteria – perspicacity and inclusivity - against which to test an ideological perspective. Thus it is not necessary to resort to extreme relativism but is rather imperative to challenge and reject heinous exclusionist modes of thinking such as fascism and fundamentalism as woefully inadequate forms of thinking that are ‘arrested in development’ some way down the epistemological ladder, probably stage 2.

The Geographical Nature of, and need for, Wisdom

There is a real sense in which thinking (whether wise or foolish) is always developed and applied ‘geographically’ since the world, and specific places, environments and communities that comprise it, represent the principal contexts of enquiry and arena for action in which it happens and through which wisdom (or foolishness!) is realised. Likewise, sustainable development and global citizenship are only relevant in the contingencies of specific ‘real world’ contexts or places and therefore inherently geographical in nature. However, ‘sustainable development’, and ‘global citizenship’ are notoriously difficult, or ‘wicked’ (Rittel and Webber 1973), problems which may be contrasted with tame or benign problems as follows:

<table>
<thead>
<tr>
<th>Tame/ Benign Problems (well-structured)</th>
<th>‘Wicked Problems’ (ill-structured)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• complete and unambiguous problem specifications</td>
<td>• cannot be easily defined so that all stakeholders agree</td>
</tr>
<tr>
<td>• clear criteria and procedures to</td>
<td>• require complex judgments about the level of</td>
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9 The ‘wickedness’ of ‘sustainable development’ is simply demonstrated by the existence of over 300 different definitions of it and the fact that the term is actually interpreted in a variety of ways, many of which are antagonistic (e.g. sustainable economic growth versus ecological conservatism). The ‘wickedness’ of the concept of citizenship is demonstrated by the fact that not all cultures and socio-political systems subscribe to the same understanding of what qualifications and qualities are required for citizenship. This is reflected in the fact that those values often held to be universal such as the United Nations Declaration of Human Rights are increasingly criticised as representing a narrow, Eurocentric perspective.  

evaluate whether a solution has been reached
• all of the knowledge necessary to solve the problem is available
• only one correct or true perspective is possible/appropriate/most adequate

abstraction
• have no clear stopping rules
• have better or worse (rather than right or wrong) solutions
• have no objective measure of success
• require iteration
• often have strong moral, political or professional dimensions

Table 1: Tame and Wicked Problems (based on Buckingham Shum 2003; van Bruggen, Boshuizen et al. 2003)

<table>
<thead>
<tr>
<th>Tame/ benign problems (well-structured)</th>
<th>Wicked problems (ill-structured)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• very easy to identify what the problem is</td>
<td>• problem cannot be easily defined so that all stakeholders agree and it is likely to involve quite a bit of negotiation even to get started</td>
</tr>
<tr>
<td>• very easy to decide when the problem has been solved</td>
<td>• never clear when the problem has finally been solved (ongoing issue)</td>
</tr>
<tr>
<td>• all of the knowledge necessary to solve the problem is available</td>
<td>• have better or worse (rather than right or wrong) solutions</td>
</tr>
<tr>
<td>• only one correct or true 'answer' is possible/appropriate</td>
<td>• have no objective measure of success</td>
</tr>
<tr>
<td>• not particularly contentious - pretty much anyone would come to the same conclusions regardless of their political affiliation</td>
<td>• require constant revisiting and reformulation</td>
</tr>
<tr>
<td></td>
<td>• often have strong moral, political or professional dimensions which makes them contentious</td>
</tr>
</tbody>
</table>

This distinction is particularly important for geography and geographical education and ESD&GC since ‘real world’ problems in “our fragmented, pluralistic, but globally connected world” (Kirschner, Buckingham Shum et al. 2003) are invariably of the latter type and therefore demand higher order problem solving – namely the application of ‘wisdom’ to geographical problems.

**Postformal Thinking and (Geographical) Creativity**

In addition to the purely pragmatic or utilitarian requirement for post-formal thinking to
address wicked problems of the real world, post-thinking is also thought to provide the basis of creativity. The anthology *The Origins of Creativity* (Pfenniger and Shubik 2001) is replete with examples of how post-formal thinking generates creativity. Sternberg identifies eight types of ‘creative contributions’ within a discipline (see box 3)

### Types of creativity that …

- Accept current paradigms and attempt to extend them
  1) Replication
  2) Redefinition
  3) Forward incrementation
  4) Advance forward incrementation
- Reject current paradigms and attempt to replace them
  5) Redirection
  6) Construction/redirection
  7) Reinitiation
- Merges disparate current paradigms
  8) Integration

Box 3: Types of creative contributions to disciplinary knowledge development (after Sternberg 2003)

This is particularly relevant to geography which straddles a variety of disciplines and paradigms and has, increasingly in recent years, been attempting to integrate the insights from other academic disciplines such as cultural studies. Massey’s *Global Sense of Place* (Massey 1991), Haraway’s notion of the Cyborg (Haraway 1991), Whatmore’s *Hybrid Geographies*’ (Whatmore 2002), and Soja’s *Third Space* (Soja 1996) represent a short selection of recent creative advances in the discipline of geography brought about through the application of ‘post-formal’ reasoning. Two recent anthologies almost represent ‘manuals’ of creative/post-formal thinking in geography and cognate disciplines: *Patterned Ground: Entanglements of Nature and Culture* (Harrison, Pile et al. 2004) and *Imagining Nature: Practices of Cosmology and Identity* (Roepstorff, Bubandt et al. 2003). Both of these emphasise the ‘real’ and ‘ideal’ nature of human perception and suggest ways to utilise creatively the dialogue between these two modes (objectivity and subjectivity).

### From Intelligence, Through Creativity to Wisdom

To briefly recap, an heuristic stage-model of epistemological development has been presented which extends beyond Piaget’s stage of ‘formal operations’ into a ‘post-formal’ level. This stage is characterised by a dialectical (both/and) and relational logic as opposed to categorical (either/or) logic and represents a higher order and ‘more adequate’ mode of thinking or ‘intelligence’, and is generally thought to be associated with creativity. However, according to Sternberg’s ‘Balance Theory of Wisdom’ (Sternberg 2003) creative thinking, and the domain specific ‘conventional’ or ‘successful intelligence’ upon which it is predicated, are necessary but not adequate for the development of wisdom. Wisdom requires additional criteria to be satisfied before it can
be said to be in operation. First, the thinking and subsequent behaviour should have practical applicability or usefulness to the contingent situations in which it is to be applied. It is possible to exhibit creativity in totally impractical or even erroneous ways. This is not to suggest that non-material creations cannot be deemed wise. Quite the opposite, it is possible to come up with a novel explanation or theory for phenomena of the world, or a new way of expressing an aspect of the world artistically which contributes to emotional wellbeing but it will only be such if it actually has something to contribute to an understanding of the world, otherwise it is merely foolish fantasy. Of course, one person’s fantasy is another person’s wisdom (because we view the world through difference perspectives). It also means that what was wise in one context – place and time – may not remain so forever (belief that the earth was flat no longer serves a useful purpose, nor does the idea that humans are independent of the natural environment which sustains them).

Secondly, whilst the application of intelligence and creativity are likely to be self-serving, wisdom requires that the results are to the benefit of the ‘greater good’. Happily, it is usually the case that in serving the greater good one will be directly serving oneself. Thus, according to philosophers and religious teachers since antiquity, serving the ‘greater good’ is actually the surest way to achieving the ‘good life’ for oneself. However, it is not necessarily always be the case that serving the ‘greater good’ will bring rewards to the individual as are usually perceived in capitalist societies (such as accumulation of wealth, possessions, power and status) and the wise person stands out as one who knows when self-sacrifice for the benefit of the greater good is preferable to ‘looking after number one’. If more people were to operate at this cognitive level, the world truly would be a better – that is more sustainable and convivial - place. Hence the relevance to transformatively minded educationalists of attempting to develop this level of thinking.

Lipman (Lipman 2003) presents two useful perspectives on thinking and learning of direct relevance to this discussion. First he presents a model of multidimensional thinking as the ideal in order to address the needs of contemporary society. This model comprises three interrelated dimensions – the three C’s: critical thinking, creative thinking and caring thinking. In terms of Sterberg’s model, perhaps intelligence and creativity are covered by Lipman’s first two categories but it is only when the caring dimension to thinking is also applied that the qualitative shift up to ‘wisdom’ is likely to happen. Secondly, given that the development of more than one perspective presents a challenge to anyone, not least younger learners, Lipman lays great emphasis on the ‘community of enquiry’ – a group of individuals working collaboratively and dialogically to share the division of cognitive labour amongst themselves in order to develop a collective understanding. Thus, whilst the development of post-formal reasoning and multiple perspectives might be a challenge for any one person working in isolation, the possibility offered by a social group to distribute and co-ordinate or share perspectives amongst itself suggests that post-formal thinking and the development of wisdom is much facilitated through dialogic argumentation. Thus wisdom is very much a social matter.

**Wise ‘Being-in-the-World’ - Individuals, Communities and Worldviews**
According to neo-Kantian and neo-Jungian perspectives all human perceiving and cognition is conceptually based resulting from phylogenetically (that is relating to the species Homo sapiens sapiens) evolved schemas that represent ‘hotwired’ mental modules/modes of thinking (Stevens 2001). A person’s (or group/society’s) ‘worldview’ can be thought of being a meta-schema globally incorporating many, if not all, concepts a person holds about the world and their place in it. The terms ‘cognitive map’ (Laszlo, Masulli et al. 1993), ‘geographical imagination’ (Massey and Jess 1995), and ‘terrain of knowledge’ may be thought of as broadly synonymous with, or at least having ‘family resemblance’ to, the notion of worldview.

The geographical metaphors – map, terrain etc. – are more than just convenient as it is increasingly apparent that the way in which an individual thinks is derived in large part from his or her existential status as an embodied and temporal being with particular attributes (e.g. vertical forward-facing orientation, complex mentation) operating in a spatial and social, that is to say geographical, environment (Preston 2003). Once again, this highlights the always and already geographical nature of human - Homo geographicus (Sack 1997) – modes of ‘being-and-knowing-in-the-world’. The outer experience of bodily negotiating and interpreting an environment with its varied stimuli becomes internalized as thinking schemas which often have a strong spatial dimension. A simple illustration is the near, but not totally, universal taken-for-granted association of the future with ahead and the past with behind which is derived from the physical fact that generally humans move forwards through the environment and consequently anticipate events that are in front of them, and move away from events that have already taken place (Lakoff and Johnson 1980). On the other hand, these partially phylogenetically, partially socially derived experiential mental schemas, through a process of ‘metaphoric projection (Ibid), are implicated in the ‘construction’ of our external ‘reality’. Thus our ‘outer world’ and ‘inner world’ are strongly and inextricably articulated.

Epistemic development, that is transformation of the underlying mental meta-schemas or worldview, occurs throughout one’s lifespan due to cognitive maturation and ongoing experience and learning. This gives rise to qualitatively different ‘modes’ of ‘being’ and ‘knowing’ e.g. what is self, what is ‘other’; what is ethically relevant and what is not across the lifespan. From a neo-Piagetian perspective increasingly sophisticated levels of cognition result from ever more integrative schema and an increasing level of skill in applying them, or indeed, conscious awareness of their ‘structure; and operation – metacognition. This cognitive and hence intellectual development takes place through a series of ‘phase transitions’ between qualitatively different schematic structures or ‘epistemic frames’. This gives rise to a stepped developmental profile with each integrating yet transcending the stage below i.e. has qualitatively different emergence properties. The neo-Piagetian perspective reveals the story to be complicated by the presence within the mental world of any individual of a

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10 This is referring to patterns of neurological activity that are postulated by cognitive scientists as structuring human mentation. Some are genetically derived from evolutionary adaptation. Others are learned through the processes of socialization and enculturation and are therefore ‘socially constructed’

11 The term as used here conveys much more than the idea of ‘cognitive maps’ as used in the behavioural school of environmental psychology and geography i.e. refers to more than just our wayfinding abilities in the environment and is more like the notion of ‘worldview’ as used in philosophy
variety of schemas (some domain specific) each potentially operating relatively autonomously but also possibly interacting with others either horizontally or vertically/hierarchically in part-whole relations, with a higher order schema being comprised of many interrelated sub-schemas. Further complication arises from the fact that schemas potentially progress at different rates. The idea of developing schemas relates reasonably well to Gardner’s notion of multiple intelligences (Gardner 1999), that is to say, each of Gardner’s ‘intelligences’ might represent a relatively autonomous ‘mental schema’ which can undergo development independently (to a greater or lesser extent) of the others.

However, a general three-tier heuristic model is increasingly common in the philosophy of development that extends the Piagetian framework of pre-formal and formal operations with an additional ‘post-formal’ stage (van Haaften, Korthals et al. 1997; Valsiner and Connolly 2003). The tiers represent qualitatively different thinking styles that are all adequate for ‘sense making’ at a particular developmental stage but become increasingly ‘more adequate’ and sophisticated as cognitive development proceeds. Kohlberg’s stages of moral development (pre-conventional, conventional and post-conventional) are paradigmatic of this approach. The transition itself proceeds through a dialectical process. First there is the ‘given’ state in which the world is viewed through the existing socially constructed epistemic frame; then new patterns and processes that were not noticed before are differentiated or discriminated which call in to question the efficacy of the existing schema; finally a resolution occurs through integration of the new features with the old to form a qualitatively different and more adequate world view. This clearly represents a recapitulation of the Hegelian ‘thesis – antithesis – synthesis’ dialectic (Source?).

In a more global sense, reasoning and sense-making that gives rise to one’s meta-schema or ‘worldview’ might also be seen to develop through three basic stages (with many sub-stages possible within each) which, for the present purposes, will be referred to as ‘pre-’ or ‘common-’; ‘proper-’; and ‘uncommon-sense making’. The use of these three phrases is not current in the literature but is rather offered here for the first time to avoid association with any particular developmental perspective (Piaget, Kohlberg, Kegan etc.) whilst at the same time emphasising their basic commonality. The ‘pre-’ stage represents a period where personal ‘sense making’ is not really apparent to any degree of sophistication but is rather based on basic intuition and ‘received wisdom’ or indoctrination i.e. is socially constructed ‘common sense’ worldview. Such an individual has little metacognitive insight into why he/her thinks the way they do about themselves and the world and is unlikely to have developed a reasoned argument for their position either to themselves or in order to persuade others. The author (again) has lost track of the noun (several times) in this sentence. [but they/their can be 3rd person singular – I prefer to use as it is gender neutral] The prefix ‘pre-’ is intended to indicate an immature or novice stage of development. But the wordplay of ‘pre-sense’ also conveys the pre-reflective, given and contingent (present situation) nature of this kind of thinking which is, therefore, legitimate and, indeed, to be valued in its own right.

An individual then reaches the level of ‘proper sense making’ i.e. they apply consensual norms of thinking (paradigmatic) from within the particular scholarly perspective or ‘school of thought’ to which they now subscribe, to a problem or issue at hand. Here the prefix ‘proper’ is used to convey several senses: First, [reviewer insists I
that the thoughts/concepts are ‘owned’ by the subject as opposed to received from an external source; secondly that this way of thinking is appropriate to a particular perspective – proper in the sense of ‘intersubjectively acceptable’; thirdly that it is confined to one thing (monological) – proper in the sense of ‘categorical’ (i.e. ‘things’ are identified as discrete objects which can be labelled with a name in contradistinction to other labelled categories); and fourthly (pejoratively) to imply that it remains socially constrained by the conventional intellectual practices of that domain or school of thought and therefore not wholly authentic. At the risk of caricature, this stage is associated with formal or ‘either/or’ thinking and gives rise to a sense of certainty and a monolithic (exclusivist and rigid) and monological (single perspective) worldview or ‘grand narrative’.

Finally, the ‘uncommon sense-making’ phase – wisdom - is associated with epistemic pluralism and authentic thinking which transcends the narrow confines of any one scholarly community and recognizes the essentially contingent and situated nature of all knowledge and consequently the partial truth of many, if not all, alternative perspectives. The prefix uncommon is used here to convey the sense that this level of thinking is both rare and remarkable. It is a type of thinking associated with creativity and wisdom. This level applies relational or dialectical logic (‘both/and’ thinking) and gives rise to relative uncertainty which is paradoxically more adequate in terms of the ambiguous and multidimensional nature of reality. It represents a multidimensional worldview that is open to the ‘epistemic mystery’ of reality in an attitude of ‘poetic receptive-responsiveness’ (Ibid). It is very unusual to find individuals able to think in this fashion (hence ‘uncommon’) and they are rightly recognised as creative innovators and/or wise people. However, such thinking is possible at the societal or cultural level in situations of ‘distributed cognition’ (Salomon 1993) involving democratic collaboration within a ‘community of enquiry’ (Lipman 2003).

Conclusion

It is the contention of this paper that the post-formal or ‘uncommon’ level of thinking represents the most authentically human way of ‘being in the world’ which is focused not on accumulation but on quality of life (Fromm 1976; Edwards 1995); best equips us with ‘tools of intellectual self defence’ (Edwards 1995) needed to critique existing power-structures and taken for granted assumptions; and the type of thinking most likely to engender wisdom, creativity, and compassion and empathy. These are the attributes most needed to address the constellation of crises affecting the contemporary world of psychological, societal and ecological dysfunction. Ironically, it was the undeniable material progress in terms of health and wealth that has accrued first in the West and subsequently globally since the Enlightenment that many now feel is largely responsible for this global constellation of crises. In terms of the foregoing discussion this is a consequence of the over-emphasis on logic and rationality and a corresponding atrophy of the more ‘spiritual’ dimension which is necessary for wisdom. A paradigm shift is now being recognised by many (see references) in which this dimension of human existence is being rediscovered in the West alongside a corresponding recognition of the inherent worth of the ‘indigenous knowledge’ of Traditional societies in terms of the
From this perspective, the solution consists of an ever-broadening expansion of the self and its ‘horizon of concern’ or, expressed another way, a transformation from ego-centredness to reality-centredness (Hick 1989) as ever greater dimensions of the world are discriminated and subsequently identified with or considered ethically relevant. At the risk of oversimplification this expansion might first expand to encompass the immediate ‘in-group’, then people or humanity generally, then other living things and planetary identification (and ultimately perhaps even the whole cosmos). As stated earlier it is unusual for all but the most exceptional people to achieve this final level of thinking autonomously and some that have stood out through history as ‘world teachers’ or spiritual leaders. However, it is the contention of this paper that the right kind of transformational education may make significant progress in facilitating its development both in individuals and groups. This is the kind of education that those education\[al?] approaches intended to contribute to societal change like ESD and GC and more radical/transformative formulations of geographical education should strive for. This is an approach which should encourage a fundamental reappraisal of the current mainstream emphasis on conspicuous consumption in favour of celebrating the sagacity of senior citizens and subaltern perspectives (including youth and ethnic minorities)\[13\]. Such an education should facilitate genuine intergenerational and intercultural dialogue and argumentation; be directed both at the individual and collective levels; be seen to provide the right sorts of experiences that would facilitate the quantum shifts from one epistemic level to the next with the eyes firmly on the prize of the highest level. Most importantly it must be recognised as a lifelong process. We need to make this uncommon level more common both in the sense of more people reaching it, and more of society’s taken for granted or common-sense being informed by it – a world of the ‘geographical\[ly\] wise’.

References


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\[12\] This is not to argue that all non-Western knowledge and tradition is good, and all Western is bad. Rather, it is an argument that all global societies have exhibited post-formal levels of thinking and acting and it is at this post-formal level of dialogue which intercultural collaboration is best located

\[13\] Once again, this is not to imply that all members of a certain senior age group subaltern culture will, by definition, exhibit ‘wisdom’ but to suggest that a long-life and/or the alternative perspective which is demanded by life on the margins are possibly more likely to engender wisdom than a short life comfortably lived in the mainstream


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