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THE QUALITY OF ETHICS: MORAL CAUSATION, METHOD AND METATHEORY IN THE INTERDISCIPLINARY SCIENCE OF GEOGRAPHY

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I promised to show you a map you say but this is a mural
then yes let it be … these are small distinctions
where do we see it from is the question.
Rich, 'Here is a Map of Our Country', in *An Atlas of the Difficult World* (1991)

Introduction

David Smith's influence on the field of ethics in geography is enourmous. His contributions are topically broad, conceptually rich and illustrated with practical case studies. It is pioneering work that begins a conversation, invites the insights of others, and thereby sets research agendas. For many, he exemplifies how we should think about ethics and geography, providing a 'template', as it were, for moral reasoning about space.

Less appreciated, I think, are the presuppositions behind Smith's method of ethics, much less some implications of geography's engagement with ethics. The latter is the subject of this contribution. Using Smith's geographical ethics as a starting point, I explore the methodological connection between science, ethics and qualitative inquiry through the concept of 'moral causation'. I then turn to a metatheoretical discussion of the 'qualities' of our research phenomena (agents of inquiry and objects of analysis alike), to clarify why ethics and qualitative methods are indispensable to geography as an interdisciplinary science.

Making Space for Ethics

When I was a graduate student in the early 1990s, there was no 'discourse' or 'subfield' of ethics in geography. There was certainly a small discussion of professional ethics in the field, and the absence of an authoritative dialogue did not stop geographers from making normative claims, of varying degrees of self-conscious ethical reflection (for good examples, see Harvey, 1973; Mitchell and Draper, 1982). And like all new disciplinary arenas of inquiry, the sledding could be rough-going. Ethics work was regarded by critics as a-theoretical (i.e 'not spatial enough'), unempirical (i.e. 'not quantitative enough') or simply 'not geography' ('remember, "if you can't map it, its not geography"'). I could go on typifying such marginalizing comments with examples from cartographers, feminists, Marxists, post-colonialists, social constructionist and more. All of these typifications are drawn from people who are now advocates for ethics in the field.

In North America, the solution to this marginalization was obvious. Scholars interested in geographical ethics needed a specialist group to champion their cause in the Association of American Geographers, as well as a journal to publish their research. With this goal in mind, a few of us created the Values, Ethics and Justice Specialty Group in the Association of American Geographers, and launched a new journal, *Ethics, Place and Environment*, which first appeared in 1998. Today, that publication is flourishing, ethically inflected research

increasingly appears in established geography journals, and the number of geographers interested in ethics continues to grow. While the discourse of social construction has side-tracked geographers into the dead end of moral relativism regarding nature, we are doing far better in the human dimensions of the discipline, especially with regard to the intentions, practice and consequences of research.

An indispensable reason for the success of this moral turn is David Smith. In a series of cogent articles and books, he outlines the connections he sees between geography and ethics (Smith, 1994, 1997, 1998a, 1998b, 1998c, 1999a, 1999b, 2000a, 2000b, 2000c; Proctor and Smith, 1999). His own research on ethics, particularly questions of justice, is both theoretically rich and empirically focused. Moreover, he speaks the language of space with a moral accent, and in so doing, invites other geographers into the dialogue. Without his efforts, the moral turn in geography may not have taken hold, or if it had, we would certainly be the poorer for it.

A number of features characterize Smith's search for 'common ground' between geography and ethics. His search begins with an understanding of normative issues informed by ethical theories from philosophy. Questions that loom large here include metaethics (the logic of moral reasoning), normative ethics (theories of prescriptive moral claims), the tension between universalism and particularism in moral theory, and the difference between explanation in science and justification in ethics (to name a few). In terms of prescriptive theories of ethics, Smith's passion is justice, especially as it illuminates the responsibilities of global citizens for the health and well-being of distant others. These concerns lead Smith to consider ethics in international development, the spatial extent of our moral responsibilities, the moral dimensions of community, boundary making and exclusionary practices, and ethical rationales for entitlements to land and resources (for an especially cogent summarization, see Smith, 1998a).

A key feature in virtually all this work is the use of case studies to provide contextual details when applying Smith's ethical framework. This provides a thick description of the normative issues under investigation, and underwrites with evidence the conclusions reached by his moral reasoning. Moreover, the case studies feature questions of space and social theory - location, migration, space and place, globalization, social-spatial dialectics, and the like. This allows Smith not only to inform geography with moral philosophy, but also to spatialize the abstract theories of philosophical ethics. Overall, Smith's work exemplifies 'applied ethics' at its best. Borrowing insights and theories from moral philosophy, he uses these to inform the theories and practice of geography. At the same time, the spatial characteristics of geographical phenomena 'contextualize' abstract ethical theories so that questions of right and wrong have practical implications on the ground, and may improve the lives of marginalized people (for example, see Smith, 1994).

The conceptual analysis of insights from moral philosophy, when applied to case studies that contextualize and spatialize moral theory, thus constitutes the method Smith pursues in his research. There is real power here, a power to reveal the moral issues at stake in human endeavours, as well as to provide guidance on the ends and means of our striving for justice in particular, and the good life for all in general. Without gainsaying the power of Smith's approach to geographical ethics, I want to explore some of the presuppositions and ramifications raised by his and cognate endeavours. My intention here is not corrective. I am

suspicious of totalizing or triumphal 'theories' and 'discourses' that promote the worst kinds of scholarship and partisan bickering in the academy. Instead, I wish to complement the approach of Smith and others by exploring the methodological implications for how we think about geography as an interdisciplinary science, the role of ethics in our science, and the metatheoretical reasons why qualitative inquiry is indispensable to ethics within geography.

Moral Causation: Science, Ethics and Qualitative Inquiry

There is an extensive literature on science and ethics, less on ethics and qualitative inquiry, and a paucity of work configuring all three. Because of the breadth and complexity of the subject, allow me to phrase the essential questions as a set of interrelated presuppositions.

First, science is a rigourous inquiry in the search for *explanatory* knowledge. This knowledge may or may not be objective, certain or predictive, but it must adequately elucidate the causes of events. To do this it uses explanations and notions of causation that 'fit' the characteristics of the phenomena it studies. Thus we often distinguish between the natural and human sciences (a European distinction), or the physical and social sciences (an Anglo-American distinction). We do this because the methods, research design and theories of science should be adapted to the study of natural process or human agency, respectively. What the human and natural sciences share, then, is a common search for explanations, not a common set of methods, a common study design or common theories (Bhaskar, 1975, 1989; Silverman, 1993).

There is disagreement here, to be sure. In the Anglophone world, social science since the Second World War has often aped the methods and theories of the physical sciences. In geography, social physics and the gravity model are two examples. While most philosophies of science now recognize this as an error and a failure, departments of social science are frequently gripped by the 'ghost of positivism', with its outdated 'unity of science model (for a *mea culpa* on its folly, see Ayer, 1978; for a powerful statement of a bygone era, see Nagel, 1979; for a contemporary reaffirmation, see Wilson, 1998). By their very nature, ghosts are difficult to see. The ghost that grips geographic thought is not normally sighted in an explicit positivism, but in the obsession with space, quantitative techniques and/or cartographic visualization as definitive of the discipline.

Second, causal explanation in geography (and other interdisciplinary human and natural sciences) cannot depend on models and measuration alone, but must apprehend the meaning(s) embodied in human agency. Our individual and collective lives can only be described, explained or evaluated by accounting for people's motives, intentions, purposes, concepts, meanings, interpretations and communications. To do this we need to examine the natural languages, speech communities and discourses in which persons participate and through which they come to an understanding of the natural and social worlds. This emphasis on understanding contrasts with the explanations based on universal laws or social regularities that are more appropriate to the physical and engineering sciences, not the world of consciousness, social interaction and culture (Bernstein, 1991a, 1991b; Wallerstein and the Gulbenkian Commission, 1996).

Third, like other scientists, geographers are strongly informed by empirical observations of the natural and human worlds. This is all to the good, as this deepens our basic knowledge.

Yet by participating in a shared history of scientific philosophy rooted in the mechanistic worldview of the physical sciences (e.g. empiricism, positivism, etc.), geographers often assume that the foundation of research is quantitative in nature, that is, measurement, modelling and visualization. Without taking anything away from the importance and insights of quantitative work, one critical element is overlooked by this presumption-some phenomena may be tangible and measurable (e.g. length, mass, velocity), while other phenomena are equally real but intangible and not measurable (e.g. ideas, concepts). We therefore need empirical sciences that study distinct kinds of phenomena (tangible or intangible), and this requires sciences with distinct theories and methods. Generally, those sciences that study tangible phenomena use 'quantitative' methods, and those that examine intangible phenomena use 'qualitative' methods (Rorty, 1967; Livingstone, 1992; Wallerstein, 2001).

Fourth, qualitative inquiry is indispensable to our scientific understanding of human beings. Being 'qualitative' encapsulates the methods, research design, hypotheses, theories and philosophies used to apprehend human understanding and action. This includes techniques of research (the methods), as well as the wider epistemological, ontological and axiological understandings that make research intelligible (Harvey, 1990; Silverman, 1993). Emerging from under the shadow of quantitative norms, qualitative methods are no longer regarded as 'merely' exploratory, biased, anecdotal or indicative of a science in search of its paradigm. Qualitative inquiry shares a heritage with much older traditions of interpretative inquiry that date back to the beginnings of philosophy, history and geography in the Mediterranean world (Mueller-Vollmer, 1989; Bruns, 1992). It is also a 'co-tradition' of concepts and practices, an interdisciplinary bridge between different fields and theoretical standpoints (Denzin and Lincoln, 2000).

As cognitive ethology is discovering, altruistic motives (one root of ethical sensibility) and qualitative methods are equally indispensable to the study of animal behaviour, although its salience varies as greatly between different animal species, as it does between human and non-humans. This plays havoc with settled notions that quantitative and qualitative research loosely mapped over the domains of nature and society, respectively. Wilhelm Dilthey, the German philosopher of the human sciences, was the classic exponent of this proposition (Rose, 1981; Makkreel, 1992). Yet the emerging understanding of animal agency (e.g. consciousness, sociality and culture) has birthed a revisionist ethology that is learning to incorporate 'ethnology' into its theories and methods (for examples of this, see Bekoff, 2002; Bekoff, Allen and Burghardt, 2002). The rediscovery of animal agency has strong implications in animal geography as well, motivating the hybridization of ethical and social theories that transgress the boundaries of the animal and human worlds (Lynn, 1998, 2002, 2004; Philo and Wilbert, 2000).

Certain features roughly characterize qualitative research. These include an emphasis on multiple methods and triangulation (e.g. participant-observation, interviews, textual analysis, semiotic analysis and case study), an interpretative focus on the meaningful, value-laden character of human action and cultural processes (e.g. caring, activism), a highlighting of the inadequacy of objectivist science (e.g. empiricism, positivism, critical rationalism) and quantitative inquiry (e.g. laboratory experimentation, surveys, statistical analysis) in many human inquiries, a suspicion of privileged epistemologies, totalizing theories and rigid ideologies of human ways of life (e.g. doctrinaire Marxisms; religious fundamentalism of any

stripe), the importance of experience and narrative understandings in the constitution of both individual and group worldviews (e.g. personal biography, ethnic history), and an awareness of the ethics and power embedded in all human relations (Crabtree and Miller, 1992).

Fifth, qualitative research is a term used in contrast to (but not opposition with) quantitative research. Quantitative research's passion for measuration and mathematical techniques helps us redescribe phenomena, identify statistical correlations, posit causal relations and falsify conclusions (Bryman, 1988, Chap. 1; Barnes, 1994; Marshall and Rossman, 1995). These methods are well adjusted to the study of certain phenomena which are physically measurable, relatively enduring, have causal properties which are relatively stable, operate under known conditions, and exist in closed or demarcated systems. They are not well adjusted to the study of human (or animal) subjectivity that violates the domain boundaries of measurable, enduring, stable and well-characterized phenomena (Cloke, Philo and Sadler, 1991; Sayer, 1992).

Finally, ethics is indispensable in the practice of geography, and can be a form of qualitative research. Scholars frequently conceptualize ethics as radically different from science. Science, we are told, seeks *explanations* for natural and social phenomena, while ethics seeks *justifications* for our actions in the world. Whereas science asks questions such as 'What exists?' and 'What causes that?', ethics asks questions like 'How shall we live?' and 'What ought I do in this situation?' While this distinction is important, it does play into a rigid division of facts from values, reality from morality, reason from emotion. In the real world, justifications frequently motivate actions and thus serve as (partial) explanations in human affairs. You cannot understand why some people or communities do as they do until you understand the full range of their intentions, motivations and presuppositions. The ethical dimensions of these understandings are crucial. Moral norms frequently justify and guide our actions (for good or ill), and are the basis for critiques of oppression and injustice. Ethics is a form of discursive power which enables people to change the world around them via political action, social protest, legal manoeuvring and personal entreaties. In all these senses, then, ethics is a parallel and internal concern of science, helping us to describe, explain and/or justify the geographies of our lives (Bellah, Haan, Rabinow and Sullivan, 1983; Lynn, 2000).

Overall, the relationship between science, ethics and qualitative inquiry is rather simple. Because humans are sapient beings who act with individual and collective agency, qualitative inquiry is a requisite method for any human and social science. Because human agency may at times be explained by recourse to our moral sensibilities, *moral causation* is an indispensable force in human and environmental affairs. And because moral causation is best understood through qualitative methods, ethics is an indispensable mode of qualitative inquiry.

Qualities, Primary and Secondary

Beyond the methodological linkages just articulated, are there deeper metatheoretical connections between the scientific, ethical and methodological practice of geography? What do these connections have to do with the qualities of the phenomena (object, system, subject, agent) that we investigate? One answer to these questions is revealed in the intellectual history of qualitative inquiry.

Qualitators and quantitators - researchers using qualitative and quantitative methods, respectively - are accustomed to defining themselves against one another (Bauer and Gaskel 2000, p. 7). This usually takes the form of reciprocally binary definitions, with the quantitators associated with mathematics, certainty, objectivity and causation in the 'hard' sciences, and the qualitators associated with words, images and performances, contingency, intersubjectivity and meaning in the 'soft' sciences (Guba and Lincoln, 1994, pp. 105--6; Schwandt, 2000). These sciences are presumably hard or soft based on the tangible and measurable nature of their objects of analysis. These binary definitions tend to reinforce a picture of qualitative as anti- or non-quantitative.

Not only are the histories of qualitative inquiry of little help in overcoming this dualism, but they also tend to see qualitative inquiry as a 'modern' practice. Denzin and Lincoln (2000, pp. 11--18) begin their periodization of the five historical 'moments' in qualitative research in the early modern period. Arthur Vidich and Stanford Lyman produce a more comprehensive periodization, but only give passing mention to ancient and medieval sources. Their full account begins with the eighteenth-century ethnographies of European colonialists (Vidich and Lyman, 2000). Lost to these modernist histories is the heritage of interpretative inquiries in geography and history, a heritage as old and respected as Herodotus' *History* (c. 450 BCE), Ibn Khaldun's the *Muqaddimah* (1377), Giovanni Vico's *Principles of a New Science* (1725) and von Humboldt's *Kosmos* (1845--62). To understand the meaning of quality for geography (and the other human and social sciences), we have to go back to the ancient Mediterranean philosophies that speculated on the 'qualities' of nature.

Empedocles (c. 450 BCE) articulated an elemental theory dividing the terrestrial world into the eternal elements of earth, air, fire and water. Adopting Empedocles' division of the elements, Aristotle (c. 384--322 BCE) developed the theory of 'sensible qualities' to explain what he perceived to be the intrinsic characteristics of these elements. Aristotle postulated six sensible qualities - hot, cold, dry, wet, light and heavy - which in various combinations gave rise to each of the terrestrial elements. Thus earth is cold, dry and heavy; air is hot, wet and light; fire is hot, dry and light; and water is cold, wet and heavy. In addition, he theorized four causes by which to explain change in *both* natural and human phenomena - 'what it is made of (material cause), what it essentially is (formal cause), what brought it into being (efficient cause), and what its function or purpose is (final cause)' (Urmson and Rée, 1989, p. 26). Aristotle's theories about qualities and causes became the basis for Islamic and European science (Lindberg 1992).

Early modern scientists rejected these theories about substance and causation. They adopted instead an atomistic theory of 'corpuscular' matter, causation in which was produced by the physical motion of matter, and they pursued a mathematically inclined and mechanistic model of 'natural philosophy'. Moreover, they believed the mechanistic worldview would guarantee universal and certain knowledge of cause and effect, thereby giving humans complete power over nature, and elucidate God's intentions through the study of creation (Glacken, 1967; Worster, 1985). Galileo Galilei (1564--1642) was an early proponent of this new atomistic and mechanistic science, and was the first modern to dichotomize *primary* and *secondary* qualities. Primary qualities (e.g. extension, mass, velocity) were inseparable from objects, while secondary qualities (e.g. colour, touch, sound) were the subjective effects of the senses, and, therefore, less real and fundamental (Dampier, 1984, pp. 127--34). Primary qualities, then, describe the materiality of the world, while secondary qualities name our

sensorial experiences of the same.

This was a radical break from the ontology of the ancient, medieval and Islamic worlds. That ontology claimed human experience evidenced a continuum of material and spiritual substances, each with its own mix of qualities, all of which were equally 'sensible'. Thus, the material, experiential and spiritual were equally real and objective (e.g. external to the knowing subject). The colour of an evergreen tree was as real and embodied in the tree as its size or mass. The sensation of colour was a direct, somehow corporeal experience of the object in one's sight. Colour was simply one aspect of the sensible qualities in matter. Early modern scientists broke with this ontology in a decisive fashion, and they would only accept primary qualities as candidates for causal explanation. To return to the example of colour, it was theorized as a wavelength of reflected light that human eyes are adapted to seeing. Thus, colour was rendered a secondary quality and did not have a causal role in vision. Moreover, since the primary qualities were the quantifiable aspects of nature, science became identified with the measuration of nature and mathematization of scientific theory, in a word, with quantification (Dampier, 1984, Chap. 4). Science increasingly embraced objective, causal and certain knowledge, gleaned through the empirical and quantifiable study of nature. What distinguishes the social from the physical sciences was not their theories or methods *per se*, but the units of analysis they investigated, the so-called 'unity of science' hypothesis.

The worldview of mechanistic science did produce substantial intellectual progress, and the technological ability to transform nature is a testament to its (partial) insights. There was a price to pay, however, in adopting this vision of science. It systematically erased from scientific research those phenomena that were not quantifiable. Non-material experiences and social relations either had to be theoretically reduced to materialist causation, or dropped from scientific studies altogether, and explanation in human affairs increasingly marginalized human subjectivity and agency (Rorty, 1979; Sorell, 1991; Toulmin, 1990).

Tertiary Qualities and the Sources of Moral Causation

Few of us would argue against the importance of primary qualities. They are critical to an understanding of material causation. Even so, people are sapient beings, distinctive for their ability to think and feel with self-awareness. Because of this, we are agents of our own lives, capable of acting with volition, empowered by our interpretations and motivations to produce our own intrinsic, non-materialistic 'causes' for action. These other characteristics are associated not solely with secondary qualities and raw experience (although I am not ruling these out), but with what I term tertiary qualities. *Tertiary qualities* are the cognitive, cultural and social elements of human life - sapience (self-awareness), emotion, reason, interpretation, education, individual and collective action, politics, and the like. They name those aspects of an intangible but still very real and empirical world, one generated and transformed through human consciousness and cultural traditions. This makes material causation inadequate to the task of explaining human action, and primary qualities only one characteristic to consider when trying to understand the human and social worlds. Indeed, it is scarcely possible to describe ourselves, much less explain or understand our thoughts and conduct, without taking tertiary qualities into account (Taylor, 1985; Wachterhauser, 1986, 1994).

Examples are readily at hand. Consider one's sense of touch. A touch can be experienced as a caress, a sharing of friendship, or a sexual assault. It is not experienced as a touch first,

then passed through an algorithm to produce its meaning. On the contrary, our prior understandings and current interpretation constitute what a touch may mean. We may be drawn to, comforted by, or repelled from someone's touch. We can consider a deforested landscape in the same way. It is a complex interweaving of matter, perception and conception - of primary, secondary and tertiary qualities - into maps of meaning. One element in these maps is the moral value(s) we recognize in the landscape, and different moral outlooks will produce different descriptions and experience of deforestation. The junk-bond trader who is clueless or careless about intrinsic moral value may see trees as proto-timber, fungible capital in natural wealth, and not even recognize the loss to individual, species and ecosystem values on the landscape. The orthodox Marxist, who considers nature as valuable only in relation to the well-being of humans, may see the forest as humankind's external body, and the metabolization of the landscape as an intrinsically valuable increase in material well-being. The radical environmentalist, who considers all of nature laden with intrinsic moral value, may see arrogance, slaughter and rape, evidence of our indifference to other forms of life.

In this sense, primary and secondary qualities are mediated and given significance by tertiary qualities, that is, perception and experience is given form and meaning by personal and cultural understandings. Together, the primary, secondary and tertiary qualities point us towards a wholistic consideration of the material and cultural dimensions of human existence. Ontologically our existence, experience and sapience are simultaneous and reciprocal. Epistemologically, however, primary, secondary and tertiary qualities name distinctions that differentiate and highlight the plural and interlaced context of our lives.

Conclusion

Tertiary qualities are the link between science, ethics and qualitative research. This is so in all interdisciplinary sciences studying human and natural phenomena. If we take science to be a rigourous inquiry in the search for explanatory causal knowledge, then this knowledge may be derived from sources having primary, secondary or tertiary qualities. What this means, of course, is that good science adapts its methodology to appropriately fit the characteristics of the phenomena under study. In the case of the human and social sciences, the methods, research design and theories must be adapted to the study of human agency and subjectivity.

As for qualitative inquiry, we can confidently say John Stuart Mill was wrong when in 1872 he stated, 'The backward state of the moral sciences can only be remedied by applying to them the methods of physical science, duly extended and generalized' (Mill, 1987, p. 19). There are multiple kinds of phenomena manifesting different qualities. Qualitative and quantitative methodologies are both legitimate modes of research, appropriately adapted to understanding the distinctive qualities of differing phenomena. As an interdisciplinary science with physical and human components, geography should incorporate both forms of inquiry. Still, many of us endure the mutual recriminations between qualitators and quantitators, between claims that one kind of geography is about objective facts, while the other is about subjective values. One reason for this conflict is the under-theorization of 'quality', depriving us of the conceptual tools needed to appreciate the legitimate reasons for multiple methodologies in geography.

Finally, ethics is a tertiary quality of human life. This is true whether ethics takes the form of abstract theory or felt sensibility. When geographers investigate moral values, they are

recovering some of the tertiary qualities erased by early mechanistic science in its search for primary qualities. In so doing, they deepen our causal understanding of the world, for to describe, explain or justify our world, we must apprehend the ethics that partially constitute those understandings. It is for this reason that ethics can never only be an external arbiter of research practices, although it should help us practice as best we can. Rather our moral sensibilities are intrinsic to the purposes and subject matter of geographic research. Ethics is a constitutive element of geography, and explanations that inappropriately exclude tertiary qualities like ethics are, fundamentally, no explanation at all.

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