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The Positioned Construction of Water Values: Pluralism, Positionality and Praxis

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ABSTRACT

Water values serve as an entry point into the intricacies of public policies and management approaches. Values are contingent assessments that emerge out of socio-ecological relations and reflect particular demands, legacies and opportunities. The concept of value positionality is introduced as the synthesis of multiple expressions of worthiness cherished by a social group. Positionality is a metaphor that connects the phenomenological understanding of water value with the politics of everyday life and the broader politico-institutional framework. Positionality entails a cluster of meanings expressed through territorialized interactions across time, locations and scales. Positionalities converge or depart according to value praxis, that is, the clash of competing valuation approaches seeking legitimisation.

KEY WORDS: Nature valuation, water values, political ecology, positionality, praxis, war of position.

THE IMPORTANCE OF WATER VALUES

Water management has been marked, particularly in the last few decades, by growing complexity and multiple conflicts of interest. The rich and disparate experiences of recent years demonstrate that, while public policies aim to reconcile socio-economic development with the conservation of aquatic systems, in practice those attempts often lead to an escalation of disputes and ecological impacts. The intensification in the use of nature for economic production has created increasing controversy and divisiveness, which suggests the existence of structural contradictions in the access and management of resources (Douai, 2009). Conflicts in the allocation and use of water are normally underpinned by fierce disagreements over the interpretation of the value of water stocks and associated hydrological features. Competing modes of valuation have informed the design of government interventions, the execution of technical assessments and the formulation of regulatory procedures. At the same time, the idiosyncratic forms of valuing water reflect the specificity of the interaction, and deep interdependencies, between social groups and their water systems. Dissimilar manifestations of water values correspond not only to different subjectivities projected onto the world, but serve to expose the imbalance of power and subtle positions of authority. As observed by Kovel (2002: 195), “ecological politics can be translated into a framework of values” and, by and large, the values that ultimately prevail are those sponsored by the more powerful in society. The contested nature of water values – that is, the contrasting meanings, preferences and priorities among water users, interested parties and government officials – is further reinforced by the fact that not all interpretations are equally accepted. The challenges to improve water management are not restricted to reverting impacts on the quality and quantity of water, or to the provision of better public services, but above all constitute a clash of competing valuation approaches seeking legitimisation.

The examination of water values can offer a helpful entry point into the intricacies of public policies and management techniques. Water values are contingent assessments of worthiness that emerge out of multiple socio-ecological relations and follow particular demands, legacies and opportunities. Despite its crucial importance, the political disputes around the

valuation of water are not always properly recognised, but, in many cases, the vast universe of values is typically reduced to a simple dichotomy between economic (modern) and traditional (anti-modern) interpretations. In particular, mainstream assessments concentrate on the techno-monetary aspects of water systems and neglect the plurality of meanings associated with the allocation, use and conservation of water. The priority of public water services is often to guarantee the circulation of commodities, the accumulation of capital and the reproduction of the labour force, which expose the economic nexus that characterises the official valuation of water. Values, thus, become abstract, unmediated and impersonal in a way that breaks established connections between the social and the material dimensions of water use. The most common results of the poor incorporation and integration of stakeholder values come in the form of management failures and the perpetuation of political conflicts (Ananda and Herath, 2003). Through institutionalised forms of valuation, hegemonic approaches ignore the complex relations between social inequalities and environmental degradation (Scruggs, 1998). In the cities, the technologies and methods of water distribution normally dissociate the urban dwellers from the natural environment upon which they depend (Stuart, 2007), as much as valuing hygiene, public health and urban 'order' reverberates the bio-political dynamics and the dispersed sources of power in modern societies (Gandy, 2006).

In order to appreciate the complex ontology of water values and the practical implications in terms of water management and conflict negotiation, this essay is organised in two parts. First, it briefly revisits the debate around the valuation of nature, in particular the influence of neoclassical economics on the formulation of contemporary policy-making. Two responses to mainstream economics are discussed, namely, the political economy of the environment (mainly concerned with the structures of resource allocation, the impact of macroeconomic policies and legislation, and the loss of community forms of resource use due to the expansion of market forces) and the anthropological consideration of values and things (interested in the cultural construction of knowledge, interpersonal experiences, identities, feelings, sensitivities and conflicts). The second part of the text tries to reconcile and integrate those two alternative interpretations of the value through an approach that connects the specific with the general forms of valuation. As suggested by Hoffman (2005), the assessment of water values requires a critical investigation that embraces the intersection between concrete and abstract, local and general, personal and social experiences. The concept of 'value positionality' is then introduced as an attempt to synthesise collective manifestations of value situated in time, space and politics. Water value positionalities are ensembles of experiences, subjectivities and spatialities shared by a social group in specific circumstances. Values are described as social and material constructions expressed through mechanisms of cooperation and conflict that contribute to the social production of space. Finally, it is argued that the positionality of water values cannot be dissociated from the unity of action and reflection, that is, the praxis of valuation. Following a Gramscian approach, the opposition between positionalities can be taken as a territorialized war of position (whilst individual water management decisions can be compared with the war of manoeuvre). Value praxis means a creative cognition of the world that is imbricated in, and also catalyses, its transformation.

REVISITING THE VALUATION OF NATURE

Value is a word commonly used in everyday life to represent widely different ideas of what is good or bad, what is right or wrong. Also in the academic texts the controversy about the value of nature, and of natural resources in particular, reveals a cacophony of vocabularies and

the poor systematisation of valuation approaches. Trainor (2006) submits that the different values attributed to nature are essentially perceived as incommensurate, because the different realms of human activities correspond to distinct, irreducible concepts of what it means to value. The array of subjects that deal with the axiology of nature ranges from psychologists, administrators and lawyers to artists, theologians and moral philosophers. Technology experts conceive values in relation to specific ends and purposes, which means that a thing 'is good for' a particular reason (e.g. 'water is good for food production'); see Rigby et al. (2010). Other academics describe the inherent values that exist independently of their utility but are associated with the judgment of what is right and legitimate (e.g. the axiom that 'water is good'), as maintained by O'Neill and Spash (2000). In the first case, the value is an ontological category that is established in instrumental terms and in relation to something else and, according to the second standpoint, only a limited rate of environmental impacts, necessary for the satisfaction of vital human needs, can be morally justifiable, given that the existence of water systems is a value in itself. In view of that debate, the economic science – in particular, environmental economics – is probably the most influential discipline when it comes to quantitatively value nature. Furthermore, because of the market pressures of contemporary globalised society, environmental policies have increasingly required the assessment of the economic significance of resources and ecosystem services. With the creation of a dedicated regulatory apparatus in the last three decades, economists have developed detailed guidance for the assessment of tradeoffs between socio-economic pressures and environmental conservation (e.g. the valuation toolkit developed for the implementation of the Water Framework Directive, cf. Heinz et al., 2007). Those official techniques typically consider water reserves as a form of 'natural capital' that can be quantified as, or at least related to, monetary figures (Young, 2005). Once the monetary value of water is determined, a series of standard procedures can be employed, such as cost-benefit analysis, bulk water charges and even water markets (Garrido, 2007).

The growing emphasis on the economic, and often monetary, translation of water values is one of the pillars of the doctrine of integrated water resources management (IWRM) that has informed policy-making since the end of the 1970s (Ward, 2007). The application of IWRM principles has promoted the replacement of customary interpretations of water value with a techno-bureaucratic rationality based on an economic toolkit that includes marginal productivity, techno-economic efficiency, free market choices and the marginal cost of water (Ioris, 2008). While communitarian water users articulate a myriad of spontaneous valuation mechanisms and negotiation skills (Garner, 2006), centralised approaches combine different technical methodologies to determine the economic value of water (Ghosh and Mujumdar, 2006). The assumption is that, once the costs and benefits are all considered in monetary terms, a rational and efficient solution can be achieved. In practice, though, there is limited evidence to show that monetary valuation is capable of reverting the rate of environmental impacts or of recovering degradation. It basically tries to infer values and simulate a hypothetical market rationality that has no relation with actual allocation and conservation practices. One of the most used techniques of monetary valuation is the stated preferences method, such as contingent valuation, which evaluates people willingness to pay to an improvement in the environmental quality or to accept compensation for environmental degradation. Knetsch (1994) observes that the results obtained by contingent valuation are highly susceptible to manipulation and fall short of a reliable economic assessment. A related weakness is the fact that most economic valuation approaches deal with isolated ecological functions, as well as with uses and values in only a given site, which frustrates the demand of decision makers faces with complex trade-offs between conservation and development across different geographical scales (Turner et al., 2003).

The work of political economists represents an insightful critique of the valuation of nature proposed by environmental economics and incorporated into IWRM-based policies. Political economists demonstrate the tension between the productive and reproductive functions of water that is implicit in most contemporary policies and governmental assessment (Gowdy and Erickson, 2005), as well as how the single-minded focus on the economic dimension relegates the valuation of water to its commodifiable properties (Ahlers, 2010). Critical authors have condemned the assignment of monetary values to processes and situations that are beyond the realm of markets as a simple extension of the principles of neoclassical economics to environmental management (e.g. Gregory and Slovic, 1997). Conventional, neoclassical economics leads to the overstatement of one particular interpretation of value out of the broader universe of social relations and interactions between nature and society. The emphasis attributed to the economic dimension of water fundamentally distorts the fact that only a small fraction of the water appropriated by human society is related to production. In effect, the multiplicity of uses entails a nested configuration of water values in which production values and market exchanges are inserted in the wider forms of valuation that correspond to non-economic activities, aesthetic uses and ecological conservation. Water can be a raw material for the production of commodities (i.e. its use value serves the realisation of the exchange value of the commodities) or it can even be directly sold as mineral water, domestic supply and in the so-called water markets (i.e. situations where the exchange value of water is directly realised), but these activities involve only a minor proportion of the total water used. The subversion of the nested configuration of values by environmental economics has had important practical consequences for water management. Standard decision-making nowadays invariably favours the stakeholder groups that are better prepared to deal with a regulatory framework centred on the monetised translation of water values. The stronger and more informed water users are able to cope with bulk water charges and transfer the costs of environmental regulation to their customers, while the less organised stakeholders strive to influence the regulatory process and minimise the financial impact of charges (Ioris and Costa, 2009).

Although the critique of commodification rightly condemns the perverse consequences of the reductionist treatment of complex socio-natural processes, it is often the case that the attack on water commodification remains too focused on the precedence of exchange value over the use value of water (e.g. Kosoy and Corbera, 2010). This schematic division between values – that was originally described for the analysis of commodity circulation through the labour theory of value – reveals the tendency of some political economists for replicating the utilitarian and anthropocentric valuation of liberal economists. That means an excessive emphasis on the labour theory of value at the expense of the wider, non-economic realm of water values and frequently neglects the values of nature beyond economic production. Ingold (2000: 327) argues that it is misleading to define ‘abstract social labour’ as the common measure of value, because ‘abstract labour’ tends to overlook the specific features of practical social engagements and interconnections with the natural world. Brennan (1997) further complains that the distinction between use and exchange has the inadequacy of reproducing the separation between subject and object that historically permeated Western thought. Brennan (1997) insists that both labour-power and natural resources enter the production process in order to create surplus-value (i.e. the expansion of the law of surplus value described by Marx to the exploitation of both labour and nature). The key implication of the observation of Brennan (1997) is that the standard framework of values (i.e. the tension between use and exchange values) may not be enough to capture the broader expressions of value that permeate the non-productive relations between nature and society.

Yet, in an attempt to situate the politics of daily life within the totality of the social relations and interactions with nature, Harvey (2010) argues that mental conceptions (e.g. the valuation of nature) are only one 'moment' in the process of human evolution and inseparable from technologies and socio-economic organisational forms. That is, rather than isolated constructs, expressions of value are interconnected and interpenetrate each other, and the manifestation of a particular value (e.g. the production value of water) exists in relation to other simultaneous values (e.g. conservation and aesthetic values). Instead of the separation between commodified and non-commodified expressions, the different values of water need to be seen as interrelated categories, with no rigid boundaries. Even the economic value of water should be considered not purely on quantitative terms or only centred on exchange, but reflecting the socially negotiated meanings of commodification. In that sense, Huber (2009) argues in favour of a more open theorisation of value that captures the imperfect generalisation of commodity exchange, as well as Page (2005) observes that the commodification of water is neither inevitable, nor linear and unidirectional, but it is profoundly sensitive to culture, social experience and material movement of things under specific historical and political circumstances. Erik Swyngedouw (pers. commun.) points out that water services inescapably transform water into a commodity (with use value, exchange value and price), but it does not mean that water commodification necessarily leads to additional social discrimination; on the contrary, the decisive question is not the commodification per se, but for which purposes and under which socio-political relations. It should also be noted that Marx himself argued in the *Grundrisse*, still in an unelaborated form, the coexistence of both production and non-production values (more specifically, the inherent values of nature were considered "the historical presupposition of capital" by Marx, 1973: 715). In the *Critique of the Gotha Programme* (in Grundmann, 1991: 93), Marx observed that it is important to perceive the totality of the social forms in which the values are produced, inasmuch as labour and nature together produce use values (which are the precondition for all production). The formation of value follows contingent historical processes and constitutes "the material basis in which a specific economic relations presents itself" (Marx, 1973: 881).

At any rate, political economy needs to be more aware to the nuances of the interaction between society and the environment, beyond rigid formulations about value and commodification. Economists can certainly benefit from the contribution of social anthropologists, and other social scientists, who emphasise the cultural intricacy of the valuation of nature (Treitler and Midgett, 2007). For example, Trawick (2001) describes the use of water by Andean communities according to pre-Columbian institutions based on collective duties, rights and solidarity. In this case, because of the transparent and equitable allocation, water management achieves higher levels of efficiency than in the surrounding areas more directly influenced by Western technologies and market rules. According to anthropologists, management problems and water conflicts are as much the result of biophysical and socio-economic conditions as the product of cultural values (Donahue and Johnston, 1998). More specifically, since the 1980s there has been a renewed interest among anthropologists in material culture studies, which examine how things, made or modified by humans, reflect beliefs, ideas, attitudes, assumptions and, ultimately, values. Through movement, circulation and consumption, it should be possible to clarify the relation between things, cultural identities and human agency. Kopytoff (1986) defines such interconnection as the 'cultural biography' of things or the transformation of the meaning and value of goods across time and space. Similarly, Appadurai (1986) describes the complex and unpredictable confrontations between different regimes of valuation as 'tournaments of value'. These tournaments are complex events removed from the routines of economic life or

situations when the disposition of the cultural tokens of value is at stake. Values are therefore seen as politicised notions that involve contested relations of power and knowledge within and across societies. Appadurai (1986) suggests that there exists a ritual (or spectacular) production of value, which “emerges as a contested, political relation as things travel from the site of production to those of exchange and consumption, all of which are unevenly invested with power–knowledge” (in Andermann, 2009: 334).

Social anthropologists, thus, reject the dualism between valuing subjects (individuals who interpret values) and the valuable objects (things that potentially hold value). Valuation passes to be considered as a dynamic process related to the conceptions of the world around the speaker cast in a moral frame of reference. Expanding from the notion of ‘tournaments’ (Appadurai, 1986), we could claim that the value of water is a direct indication of how each society is able to interact with the water cycle and establish social relations that reflect conditions of (relative) abundance or scarcity. Water is a unique ‘thing’, a vital substance in permanent flow, whose circulation transforms the landscape and society, while in that process its own properties get changed. Hydrosocial interactions depend on the specific materiality of water in and on the mutual adaptation between nature and society (cf. Haraway, 2008). The valuation of water follows the belief patterns of groups or individuals and, by extension, the larger society of which these individuals are a part. Anthropologists demonstrate that not necessarily a thing needs to be subjected to a commercial transaction in order to acquire value, but objects and elements can be highly valued through cultural interaction and transmission (Rowlands, 2005). Things and objects can acquire a sort of ‘biography’ by their frequent border crossings between different value regimes, as well as by the changes of values and meanings, ideologies and practices associated with them. In order to understand the formulation of values, one has to almost inevitably deal with issues of visibility and invisibility and has to re-examine notions about power, exchange and the human person (Graeber, 2001). The values of water are therefore produced out of the biosocial interactions embedded in power structures and the cultural construction of water management systems (Mosse, 2006).

These observations are helpful to further examine the dynamics of value in relation to the commodification of water. A commodity is not simply a physical and material object, but it is the form and the social relations around the commodities that confer its character (Appadurai, 1986). Commodities constantly spill beyond specific ‘regimes of value’, because valued objects move in and out of a commodity status. For Appadurai (1986), the question is situated beyond the conflict between use and exchange value, but it is metaphorically an opposition between ‘gift’ (the qualitative value arisen out of material culture) and ‘commodity’ (the quantitative value related to market transactions). The antagonism between ‘gift’ and ‘commodity’ is neither static, nor linear, but it constitutes an arena of disputes always fought over existing social structures and cultural identities. Myers (2001) points out that the ideological commodification of things threatens the differentiation of objects across locations and cultures through the reduction to an ideology centred on individual profit. More specifically, the ideological commodification of water nowadays is directly associated with the attempts to separate nature and culture that characterise Western civilisation. Western cosmology is based on a naturalist interpretation in which there is a material continuity but also internal discontinuities between humans and non-humans (Descola, 2005). The consequence of this form of naturalism is a hierarchy of values that privileges human society above the rest of nature. Against this dichotomy, Pálsson (2009) describes the co-constitution of bodies and the reproduction of bodily material. That it, the individual is not above or detached from nature, but is an ensemble of biosocial relations. The relationship between

nature and culture manifests itself less as a division than as a continuum, the can be described as the socialisation of nature (Descola, 1994).

Anthropologists and other related social scientists certainly make an important contribution to questioning the idea of nature as cultural universal (cf. Descola and Pálsson, 1996) and to understanding values at the cultural intersection between humans and things. However, the common claim among those scholars that nature is a social construction – that is, the natural world as the construction of our concepts of nature – may present the serious risk of moving away from the materiality of nature and towards a relativistic stance. In this case, the meanings and values of nature become unhelpfully tangled in an uncertain ontology of constructed nature. The consequence is that the water values of a particular social group are then seen as always unique, specific and without any possibility of association or interaction with the values of other groups. Against this extreme fragmentation of valuation approaches, Strang (2005) argues that the engagements between society and water systems are experienced and interpreted within specific cultural contexts, but at the same time the particular qualities of water and the cognitive processes are universal and persist over time and space. In the same direction, Ingold (2000) reproves the anthropological claim of perceptual relativism (i.e. people from different cultural backgrounds would perceive reality in different ways due to alternative frameworks of belief), first and foremost because such claim actually reinforces the Western dichotomies between nature and culture. Rather than a cultural construction of the environment that implies human cognition outside the world of nature, Ingold calls for a sentient ecology in which knowledge emerges out of feelings, sensitivities and skills developed through long experiences in particular environments. Ingold's reservation with the prevalent notion of cultural construction is further advanced by Graeber (2001), who points out that anthropological research has shown important shortcomings, particularly since the 1960s, when the concerns about values passed to develop in two opposite directions, namely microeconomics and linguistics. More importantly is the tendency of social anthropology to focus on case-specific and socially embedded studies that are of difficult generalisation. Anthropologists attempt to translate meanings and values from one culture to another, but it normally creates unnecessary cultural boundaries. Having said that, it is also true that many anthropologists are aware of such dilemma and situate their work between cultural relativity and cross-cultural continuities. It is relevant to recognise that, to a large extent, the anthropological work entails an effort to compare cultural specificities through the application of similar methods and the deployment of equivalent analytical tools. In the next section it will be argued that the combination of political economic and anthropological understandings of water value may offer a more comprehensive and operational interpretation. In this case, the value of water can be understood as a positioned construction that emerges out of the territorialised relations between individuals and their collectivity, as well as between different groups.

VALUE POSITIONALITY: A RELATIONAL INTEGRATION THROUGH PRAXIS

The thinking of both political economists and social anthropologists, among other academics, represent a robust reassessment of the value of water beyond narrow, utilitarian considerations of environmental economists. The mainstream rationality, which has informed the development of most public policies, is inspired in neoclassical economic principles and, therefore, biased towards monetary valuation. Yet, neither political economic, nor anthropological critiques in isolation seem to offer a comprehensive interpretation that fully explains the valuations on the ground and the historico-geographical connections. If political

economists are right in pointing out the shortcomings of the monetary valuation of water, they often fall short of acknowledging the limitations of the labour theory applied to natural systems. In their turn, anthropologists present a worthy assessment of the materiality and bodily practices that form the experience of valuation, but are inclined to focus on the symbolism of things and the material culture of groups and sub-groups at the expense of the broader institutional constructions associated with the allocation and use of water. Furthermore, anthropologists help to elucidate the collective basis of nature valuation and the relevance of social identity issues, but often minimise the need for a coordinated confrontation against the imposition of exogenous values that characterises contemporary policy-making. Rather than an artificial disciplinary separation between economic, anthropological and, even, philosophical statements, we argue that the assignment of water values can only be understood in more relational terms, that is, values are contingent attributes that emerge out of the intersection between individual and collective preferences, market and non-market pressures and the embedded scales of interaction. As observed by Castree (2000), there are no fixed boundaries between capitalist production and the natural world, but nature is an active agent embroiled in both economic and non-economic processes. The knowledge of values is related to the activities within a network of use and a series of demands and preferences about the self, the immediate context and the world at large.

The values of water are shaped out of the intersection between concepts and practices at the interconnection between humans and the non-human world (Gibbs, 2006). Values are derived from the familiarity and the intricate access to resources, which take place through the broad range of 'person-thing' relations (Reno, 2009). One major shortcoming of the discussion on values is the tendency to be formalistic, rather than context-centred, that is to say, values exist like problems that engage the individuals in a community in cognitive, emotional and practical ways (Preston, 2010). Perhaps the economic and anthropological readings of value can be ensemble together as a synthesis that evidentiates the profound political ecology of water valuation. Environmental values emerge from human practices that take place in specific socio-political circumstances and such practices provide the setting in which sensibilities and respect for the human and non-human elements come about (Benton, 2008). The valuation of nature, water in particular, is generated through activities and discourses shared by members of a social group (i.e. communities, ethnic groups, classes or even nations that have similar socio-economic characteristics in terms of access, use and representation of water) in permanent cooperation or antagonism with other groups. Social networks do not function in isolation, but different social groups interact according to opportunities and disputes that are informed by, and politically reconstitute, the values attributed to nature. The process of water valuation follows the technologies of power involved in the access to resources, information and decision-making and, as observed by Lansing et al. (1998), the question of which natural processes are counted as valuable depends very much on who does the counting and for which purpose. It is, therefore, misleading to think in terms of 'intrinsic values of nature' (cf. Butler and Acott, 2007), but values rely heavily upon human capacities and anthropocentric mediations (Harvey, 1996). Valuation is an active process of reconstructing and naming the world, which means that values are never neutral statements, but directly reflect the socio-political position of the interpreters. Values only exist because of human interpretation and agency on the world, something that Benton (2008) defines as values 'intrinsic to practice'.

The failure to understand the relational and politicised basis of water values has led to calls for value pluralism (e.g. Preston, 2004), but without a proper appreciation of the dynamic origin of values at the interchange between individuals and groups within nature. The values of water have their genesis in this perpetual interplay between the person, the social group and the

multiple forms of socio-ecological interaction. Water values are vivid expressions of interpersonal and intergroup relations that store meanings about the past experiences and expectations for the future. Out of those relations arises not single, individualised values, but a collection of assessments associated with each other. For example, the same river can be associated with irrigation production, hydropower generation and the maintenance of fish species. This plurality of purposes normally results in multiple processes of valuation according to interests and disputes. Due to particular circumstances, a social group may put a high value on the preservation of the river, and lower values on the exploitation of water for hydropower or agriculture irrigation. A rural community downstream of a hydropower dam values the use of water in different ways than industries and farmers that receive water and electricity from the same dam. The mosaic of value expressions is further complexified by the existence of different 'types' of water shared by many social groups (clean water, foul water, flood water, groundwater, coastal water, etc). A case in point is the multiple attitudes in relation to water in the São Francisco River Basin in the semi-arid northeast of Brazil (Ioris, 2001), where contradictory values of water can be related to at least four main positions in relation to water management: large farmers have enough land to have strategic reserves of water and food for the animals, and have been able to receive financial support from governmental agencies to build dams in their properties; the regional and national development agencies have invested significant sums of public money on the construction of large dams and hydraulic infrastructure; environmental agencies (influenced by environmental economics and IWRM) introduced in 2010 a water regulation based on the monetary value of water and bulk water charges (see www.ana.gov.br); and finally the small farmers and squatters feel much more exposed to the recurrent droughts due to the lack of equipment and material means, even at a very close distance of the river, and need to use water in a very efficient and effective way (regardless of charges and regulation).

From the above, it can be concluded that water values are, in effect, collective assessments that encapsulate accumulated experiences, material sensibilities, socio-economic circumstances, and fulfilled or unfulfilled aspirations. Values actively reflect the legacy of previous engagements with water management, current conditions and pending demands, which are primarily manifested in the social intercourse between group members and also across social groups. This politico-sociological interpretation goes further than the economic critique of the commodification of water as the exacerbation of exchange value (because it tends to simplify multidimensional and non-economic relations) and the anthropological assessment of the relation between humans and things (because it tends to focus on the specific, on the exception and minimises the broader connections between the local and the higher scales of intervention). In an attempt to bridge those various perspectives, the concept of *value positionality* is introduced here as the synthesis of the expressions of worthiness – such as the survival, production, conservation, aesthetic, artistic and religious meanings of water – cherished by society and articulated in specific historical and geographical circumstances. The idea of value positionality is justified by the fact that social and spatial positions influence, in complex and unpredictable ways, the origin and evolution of the particular values. Positionality corresponds to the collection of understandings, needs and hopes described as the water values of a given social group. Value positionality is a cluster of meanings connected through lived interactions across time, locations and scales, which include not only economic priorities but also notions of well-being, justice, local identity and national development. It builds upon the political economy explanation of capital accumulation through water management and on the anthropological understanding of continuities between the particular and the general, but further emphasises the fact that the value of water is, first and foremost, a political statement.

In the Hegelian tradition, the world is a totality in permanent dialectical movement, but within the movement it is possible to identify 'positions', it means, it is necessary to position something and someone in relation to the dynamic totality. The positionality essentially condenses the multitude of water values derived from economic and non-economic preferences, wishes and demands that are part of that totality. Likewise, the interconnected values that are contained in the positionality reflects internal hierarchies of power (the micro politics of positioning water values within the social group), as much as competing positionalities are associated with power disputes between groups, classes and geographical locations (the macro politics of positioning water values). It must be acknowledged that there are important parallels between the current definition of positionality and the similar use of the word by feminist geographers (e.g. Rose, 1997). Positionality, according to Butler (1997), is the collapse of specificities, multiple points of view, interactive technologies and human differentials. For the feminist geographers, positionality describes the situated positions from which subjects, such as teachers and researchers, come to know the world (Chacko, 2004). Moreover, despite the similar terminology, our present definition of positionality attempts to bring together the relational topology of water values from the micro to macro scales of interaction. In other words, the values of water are not only positioned in relation to the situatedness of knowledge, but due to concrete political disputes at different geographical levels. Feminist writers offer an analysis focused on the inter-subjectivity of knowledge production (Deutsch, 2004), but there is a tendency to remain too personal and self-reflexive (e.g. Moser, 2008). The notion of positionality is not restricted to the study of the how the human body relates to its environment, but it becomes a sociological statement that helps to explain political, ideological and ethical phenomena: instead of the 'accomplished positionality' of the feminists, Kozin (2008) argues that positionality is an epistemic achievement that functions 'in experience' (rather than 'from experience'). Among geographers, Sheppard (2002) reinstates the more spatial meaning of positionality (somehow minimised by the feminist writers), insofar as entities are positioned with respect to one another within space/time.

The recognition of different positionalities makes clear that water values are both relational (i.e. the outcome of relations between society and nature, and society, state and nature) and contested (i.e. the interface between structure and agency in a particular space and time). Discrepancies between value positionalities correspond to the balance of power, in the sense that positionalities held by the hegemonic groups are more influential and widely accepted than other positionalities. Positionality is thus an envelope of water values as expression of group distinctiveness underpinning coping strategies and political action. Positionality can be seen as a metaphor that connects the phenomenological understanding of water with the politics of everyday life and broader disputes for water use. Positionality is a synthetic concept that is not intended to replace cultural identity, but serves as heuristic tool to examine how values inform cross-group interaction and conflicts. Whilst some positionalities are considered as traditional and obsolete (e.g. the values of water articulated by rural communities), others are advanced as the expression of modernity and efficiency (e.g. the interpretation behind policy-making informed by multilateral agencies today). Therefore, the politics of water value is part of ideological strategies that force specific viewpoints at the expense of other considerations of value that are perceived as redundant. By defining water values as an expression of the positionality of individuals and groups, it opens more concretely the possibility to overcome old and new water management problems. Equally, without appreciating the existence of conflicting positionalities of water value any attempt at consensus building becomes pointless and naïve. An equitable and fair approach to water management requires more than only generic principle of

situated understanding to incorporate the ecological dimension of problems, the multiplicity of management knowledge and power differences (Hillman, 2006).

The clashes between conflicting positionalities unfold as *value praxis*, which means the range of politicised interactions related to the allocation and use of water according to social asymmetries and power disputes. By considering the contrast between positionalities as value praxis, the political subjectivity, instead of economic rationality, becomes the main factor of social agency. Freire notes that cognition and learning happen in relation to specific circumstances and that “people, as beings ‘in a situation’, find themselves rooted in temporal-spatial conditions which mark them and they also mark. (...) Human beings *are* because they *are in* a situation. And they will be more the more they not only critically reflect upon their existence but critically act upon it” (Freire, 1996: 90). The struggle between the positionalities of the oppressor and of the oppressed (after Freire, 1996) is the essence of value praxis, in which positionalities encapsulate shared values, at the same time that those positioned values inform social action. For instance, farmers working in dry areas or in wetland regions will hold specific positionalities of water value – which derive from their different historical, cultural and hydrosocial circumstances – and these clusters of values may express concerns, achievements and frustrations that differ from positionalities held by other stakeholder groups and/or government agencies. Lansing et al. (1998) provide an apt illustration of value praxis through a conflict in the northwest of the USA between native groups that oppose a new dam (because of the impact on their livelihood and well being) and the valuation of engineers and planners according to the language of conventional economics (justified on the grounds of the developmental value of the dam).

There are important consequences in recognising the multiplicity of water values as positionalities, so far as it can help to understand the limits and the prospects of water management approaches. Claims for the recognition of the economic value of water, the cornerstone of contemporary policy-making, are a particular positionality formulated in the sphere of the reform of the national state and the globalisation of the markets. Against these pressures, traditional water users and protest groups have articulated their own positionalities of value by putting together old and new experiences. For example, water management practiced by rural communities in Brazil are characterised by common values and the multiple institutional arrangements related to the cultivation of common land and conventions based on interfamily cooperation (cf. Galizoni, 2005). In this case, long-established regime of water management have been systematically undermined by governmental initiatives in the form of dams, hydropower schemes and centralised irrigation projects, which impose an exogenous set of water values with significant disruptive consequences to the socio-ecological condition of the local communities. Such struggle between value positionalities is connected with broader politico-institutional spheres of interaction as part of the resistance against the insertion of water into the circuits of commodification. On this regard, Lefebvre argues that the politics of everyday life connects, through specific relationships of production and reproduction, the broad practices regulated by the state with various forms of human subjectivity (in Kiel, 2002). The multiplicity of water meanings in the contemporary world goes beyond simplistic micro-scale and cultural considerations but embraces the distinctive subjectivities and the politics and praxis of everyday life associated with other scales of human agency (Ekers and Loftus, 2008). In the end, the multiple expressions of value that form a given positionality reflect a perpetual process of reflexivity and experimentation that characterises the politicised interaction between social groups.

CONCLUSION: THE SPATIAL SYNTHESIS OF VALUE POSITIONALITY

It was argued above that the valued positions about the use and conservation of water systems are an ensemble of meanings that emerge out of the interrelation between individuals and social groups, as well as between social groups with political and geographical differences. That corresponds to the positionality of water values, which is not something formulated in abstract, but reflects socio-political constructions that translate preferences, demands and uncertainties about the future. In that sense, the economic value of water is one particular element of those multiple interactions, as much as water can be inserted and removed from the circuits of commodification according to local and broader pressures for development. Positionalities converge or depart according to a value praxis based on the struggle for the legitimisation of collective water values. All that leads to the conclusion that the clashes between different value positionalities are deeply embedded in the social production of space (cf. Unwin, 2000). Positionality is the ensemble of values in motion, connected intersubjectivities that are influenced by spatial formations and contribute to change the space. Landscapes are created out of people's understanding and engagement with the world around them in a perpetual process of shaping and reshaping historicity and spatiality (Bender, 2002). Political action and contention are imbricate in 'multiple spatialities' that expand through a range of places, scales, networks, positions and mobility (Leitner et al., 2008). Massey (2005: 24) also claims that spatial configurations are the outcome of multiple trajectories (i.e. the simultaneity of stories-so-far) and the product of the material practices of power. To the extent that the individuals and social groups articulate a positioned set of water values, the formulation of those values are necessarily imbricated in the "wider power-geometries of space" (cf. Massey, 2005: 130).

Finally, this spatial convergence and opposition between different positionalities evolves as a territorialized 'war of position' (after Gramsci, 1971). Nature valuation follows the production of specific patterns of socio-spatial organisation and the mobilisation of territories and scales as productive forces. Disagreements about water value become tangible modes of interaction, cooperation and disputes between social groups that produce and restructure territorialized human action. The territorial formation can be seen as a social production or a text that embodies perceptions and commitments (Casey, 2003), at the same time that action is the simultaneous production of both spatialities and temporalities of the political (Keith and Pile, 1993). Different positions of value may coexist in the same location but following the hierarchy of power between social groups. At the same time, oppositions between positionalities are gradual disputes in which individual conflicts play an important role in tensioning the prevailing spatial hegemony. The territorialized war of position becomes, ultimately, the sensual and political manifestation of the value praxis. By defining water value as a personal and collective construction that unfolds according to a territorialized war of position, it should be possible to more fully realise the outcomes of governmental and non-governmental interventions. The concept of territorialized positionality allows the comprehension that no single value dominates completely, but multiple systems of value overlap and meaning is constantly reconstructed in relation to material, symbolic and discursive practices. Systems of valuation – articulated by governments, business sectors and local communities – are all contingent to specific and intensely politicised socio-spatial dynamics. Overall, conflicts between water stakeholders correspond to the lived experiences of individuals and groups struggling to legitimise their positionality of values through the affirmation of particular territorial configurations.

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REFERENCES

- Ahlers, R. 2010. 'Fixing and nixing: The politics of water privatization'. *Review of Radical Political Economics* **42**(2): 213-230.
- Ananda, J. and Herath, G. 2003. 'Incorporating stakeholder values into regional forest planning: A value function approach'. *Ecological Economics* **45**(1): 75-90.
- Andermann, J. 2009. 'Tournaments of value: Argentina and Brazil in the age of exhibitions'. *Journal of Material Culture* **14**(3): 333-363.
- Appadurai, A. 1986. 'Introduction: Commodities and the politics of value', in A. Appadurai (ed.), *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge: Cambridge University Press), pp. 3-64.
- Bender, B. 2002. 'Time and landscape'. *Current Anthropology* **43**: S103-S112.
- Benton, T. 2008. 'Environmental values and human purposes'. *Environmental Values* **17**(2): 201-220.
- Brennan, T. 1997. 'Economy for the earth: The labour theory of value without the subject/object distinction'. *Ecological Economics* **20**(2): 175-185.
- Butler, J. 1997. *Excitable Speech: A Politics of Performative*. New York: Routledge.
- Butler, W.F. and Acott, T.G. 2007. 'An inquiry concerning the acceptance of intrinsic value theories of nature'. *Environmental Values* **16**(2): 149-168.
- Casey, E.S. 2003. 'From space to place in contemporary health care'. *Social Science & Medicine* **56**(11): 2245-2247.
- Castree, N. 2000. 'Marxism and the production of nature'. *Capital & Class* **72**(Autumn), 5-36.
- Chacko, E. 2004. 'Positionality and praxis: Fieldwork experiences in rural India'. *Singapore Journal of Tropical Geography* **25**(1): 51-63.
- Descola, P. 1994. *In the Society of Nature: A Native Ecology in Amazonia*. Cambridge: Cambridge University Press.
- Descola, P. 2005. 'On anthropological knowledge'. *Social Anthropology* **13**(1): 65-73.
- Descola, P. and Pálsson, G. 1996. 'Introduction', in Philippe Descola and Gísli Pálsson (eds) *Nature and Society: Anthropological Perspectives*, pp. 1-23. London: Routledge.
- Deutsch, N.L. 2004. 'Positionality and the pen: Reflections on the process of becoming a feminist researcher and writer'. *Qualitative Inquiry* **10**(6): 885-902.
- Donahue, J.M. and Johnston, B.R. (eds). 1998. *Water, Culture, and Power: Local Struggles in a Global Context*. Washington D.C.: Island Press.
- Douai, A. 2009. Value theory in ecological economics: The contribution of a political economy of wealth. *Environmental Values* **18**(3): 257-284.
- Ekers, M. and Loftus, A. 2008. 'The power of water: Developing dialogues between Foucault and Gramsci'. *Environment and Planning D* **26**(4): 698-718.
- Freire, P. 1996. *Pedagogy of the Oppressed*. London: Penguin.
- Galizoni, F. M. 2005. *Águas da Vida: População Rural, Cultura e Água em Minas Gerais*. PhD thesis, Campinas, São Paulo: Unicamp.
- Gandy, M. 2006. 'Zones of indistinction: Bio-political contestations in the urban arena'. *Cultural Geographies* **13**(4): 497-516.

- Garner, A. 2006. 'Substance, desire and control: Water in the New Forest'. *Worldviews: Environment, Culture, Religion* **10**(2): 259-281.
- Garrido, A. 2007. 'Water markets design and evidence from experimental economics'. *Environmental and Resource Economics* **38**(3): 311-330.
- Ghosh, S. and Mujumdar, P.P. 2006. 'Risk minimization in water quality control problems of a river system'. *Advances in Water Resources* **29**(3): 458-470.
- Gibbs, L.M. 2006. 'Valuing water: Variability and the Lake Eyre Basin, central Australia'. *Australian Geographer* **37**(1): 73-85.
- Gowdy, J. and Erickson, J.D. 2005. 'The approach of ecological economics'. *Cambridge Journal of Economics* **29**(2): 207-222
- Graeber, D. 2001. *Toward an Anthropological Theory of Value: The False Coins of our Own Dreams*. New York: Palgrave.
- Gramsci, A. 1971. *Selections from the Prison Notebooks*. Trans./Edit. Hoare, Q. and Smith, G.N. London: Lawrence and Wishart.
- Gregory, R. and Slovic, P. 1997. 'A constructive approach to environmental valuation'. *Ecological Economics* **21**(3): 175-181.
- Grundmann, R. 1991. *Marxism and Ecology*. Oxford: Clarendon Press.
- Haraway, D.J. 2008. *When Species Meet*. Minneapolis: University of Minnesota Press.
- Harvey, D. 1996. *Justice, Nature and the Geography of Difference*. Malden, Oxford and Carlton: Blackwell.
- Harvey, D. 2010. *A Companion to Marx's Capital*. London and New York: Verso.
- Heinz, I., Pulido-Velazquez, M., Lund, J.R. and Andreu, J. 2007. 'Hydro-economic modeling in river basin management: Implications and applications for the European Water Framework Directive'. *Water Resources Management* **21**(7): 1103-1125.
- Hillman, M. 2006. 'Situated justice in environmental decision-making: Lessons from river management in Southeastern Australia'. *Geoforum* **37**(5): 695-707.
- Hoffman, J. 2005. 'Economic stratification and environmental management: A case study of the New York City Catkill/Delaware watershed'. *Environmental Values* **14**(4): 447-470.
- Huber, M.T. 2009. 'The use of gasoline: Value, oil, and the "American way of life"'. *Antipode* **41**(3): 465-486.
- Ingold, T. 2000. *The Perception of the Environment: Essays in Livelihood, Dwelling and Skill*. London and New York: Routledge.
- Ioris, A.A.R. 2001. 'Water resources development in the São Francisco River Basin (Brazil): Conflicts and management perspectives'. *Water International* **26**(1): 24-39.
- Ioris, A.A.R. 2008. 'Regional development, nature production and the techno-bureaucratic shortcut: The Douro River Catchment in Portugal'. *European Environment* **18**(5): 345-358.
- Ioris, A.A.R. and Costa, M.A.M. 2009. 'The challenge to revert unsustainable trends: Uneven development and water degradation in the Rio de Janeiro Metropolitan Area'. *Sustainability* **1**(2): 133-160.
- Keil, R. 2002. "'Common-sense" neoliberalism: Progressive Conservative Urbanism in Toronto, Canada', in N. Brenner and N. Theodore (eds.), *Spaces of Neoliberalism* (Malden, Oxford and Carlton: Blackwell), pp. 230-253.
- Keith, M. and Pile, S. (eds). 1993. *Place and the Politics of Identity*. London: Routledge.
- Knetsch, J.L. 1994. 'Environmental valuation: Some problems of wrong questions and misleading answers'. *Environmental Values* **3**(4), 351-368.

- Kopytoff, I. 1986. 'The cultural biography of things: Commoditization as process', in A. Appadurai (ed.), *The Social Life of Things* (Cambridge: Cambridge University Press), pp. 64-94.
- Kosoy, N. and Corbera, E. 2010. 'Payments for ecosystem services as commodity fetishism'. *Ecological Economics* **69**(6), 1228-1236.
- Kovel, J. 2002. *The Enemy of Nature: The End of Capitalism or the End of the World?* London: Zed Books.
- Kozin, A. 2008. 'On positionality and its comparability in the legal context'. *Comparative Sociology* **7**: 150-178.
- Lansing, J.S., Lansing, P.S. and Erazo, J.S. 1998. 'The value of a river'. *Journal of Political Ecology* **5**: 1-22.
- Leitner, H., Sheppard, E. and Sziarto, K.M. 2008. 'The spatialities of contentious politics'. *Trans Inst Br Geogr NS* **33**: 157-172.
- Marx, K. 1973. *Grundrisse*. London: Penguin Books.
- Massey, D. 2005. *For Space*. London: SAGE.
- Moser, S. 2008. 'Personality: A new positionality?'. *Area* **40**(3): 383-392.
- Mosse, D. 2006. 'Collective action, common property, and social capital in South India: An anthropological commentary'. *Economic Development and Cultural Change* **54**(3): 695-724.
- Myers, F.R. (ed). 2001. *The Empire of Things: Regimes of Value and Material Culture*. Santa Fe: School of American Research Press and Oxford: James Curry.
- O'Neill, J. and C.L. Spash. 2000. 'Appendix: Policy research brief, conceptions of value in environmental decision-making'. *Environmental Values* **9**(4): 521-536.
- Page, B. 2005. 'Paying for water and the geography of commodities'. *Trans Inst Br Geogr NS* **30**: 293-306.
- Pálsson, G. 2009. 'Biosocial relations of production'. *Comparative Studies in Society and History* **51**(2): 288-313.
- Peterson, K.R. 2010. 'From ecological politics to intrinsic value: An examination of Kovel's value theory'. *Capitalism Nature Socialism* **21**(3): 81-101.
- Preston, T. 2004. 'Environmental values, pluralism, and stability'. *Ethics, Place and Environment* **7**(1-2): 73-83.
- Reno, J. 2009. 'Your trash is someone's treasure: The politics of value at a Michigan landfill'. *Journal of Material Culture* **14**(1): 29-46.
- Rigby, D., Alcon, F. and Burton, M. 2010. 'Supply uncertainty and the economic value of irrigation water'. *European Review of Agricultural Economics* **37**(1), 97-117.
- Rose, G. 1997. 'Situating knowledges: Positionality, reflexivity and other tactics'. *Progress in Human Geography* **21**(3): 305-320.
- Rowlands, M. 2005. 'Value and the cultural transmission of things', in W. van Binsbergen and P. Geschiere (eds.), *Commodification: Things, Agency, and Identities* (Lit: Münster), pp. 267-281.
- Scruggs, L.A. 1998. 'Political and economic inequality and the environment'. *Ecological Economics* **26**(3): 259-275.
- Sheppard, E. 2002. 'The spaces and times of globalization: Place, scale, networks, and positionality'. *Economic Geography* **78**(3), 307-330.
- Strang, V. 2005. 'Common senses: Water, sensory experience and the generation of meaning'. *Journal of Material Culture* **10**(1): 92-120.
- Stuart, N. 2007. 'Technology and epistemology: Environmental mentalities and urban water usage'. *Environmental Values* **16**(2): 417-431.

- Swyngedouw, E. 2004. *Social Power and the Urbanization of Water: Flows of Power*. Oxford: Oxford University Press.
- Trawick, P. 2001. "The moral economy of water: Equity and antiquity in the Andean Commons". *American Anthropologist* **103**(2): 361-379.
- Trainor, S.F. 2006. 'Realms of value: Conflicting natural resources values and incommensurability'. *Environmental Values* **15**(1): 3-29.
- Treitler, I. and Midgett, D. 2007. "It's about water: Anthropological perspectives on water and policy". *Human Organization* **66**(2): 140-149.
- Turner, R.K., Paavola, J., Cooper, P., Farber, S., Jessamy, V. and Georgiou, S. 2003. 'Valuing nature: Lessons learned and future research directions'. *Ecological Economics* **46**(3): 493-510.
- Unwin, T. 2000. "A waste of space? Towards a critique of the social production of space". *Transactions of the Institute of British Geographers* **25**(1): 11-29.
- Ward, F.A. 2007. 'Decision support for water policy: A review of economic concepts and tools'. *Water Policy* **9**(1): 1-31.
- Young, R.A. 2005. *Determining the Economic Value of Water: Concepts and Methods*. Washington D.C.: Resources for the Future.