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Reframing water: Contesting H₂O within the European Union



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ABSTRACT

Water fulfills multiple functions and is instilled with numerous meanings: it is concurrently an economic input, an aesthetic reference, a religious symbol, a public good, a fundamental resource for public health, and a biophysical need for humans and ecosystems. Hence, water has multiple ontologies embedded within diverse social, cultural, spiritual, and political domains. For this paper, we reviewed 78 pieces of water legislation across the European Union, critically analysing the different ways in which water has been defined; subsequently we contrasted these definitions against the European Union Water Framework Directive (WFD). We argue that the act of defining water is not only a deeply social and political process, but that it often privileges specific worldviews; and that the impetus of the WFD reveals a neoliberal approach to water governance: an emphasis on water as a commercial product that should be subjected to market influences. Subsequently, we conclude that the emerging concept of the 'hydrosocial cycle,' which emphasises the inherent links between water and society, could be a useful heuristic tool to promote a broader conception of water based on diverse understandings, that challenge hegemonic definitions of water.

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1. Introduction

Water fulfils multiple functions and is instilled with numerous meanings across social, cultural, spiritual, and political domains (Barnes and Alatout, 2012). As such, water is simultaneously conceived as an economic resource, an aesthetic reference, a religious symbol, a public good, a fundamental requirement for public health, and a biophysical need for people and ecosystems (Bakker, 2010; Feitelson, 2012). These meanings may be overlapping and complementary or competing and mutually exclusive. Indeed, the act of defining water is a deeply embedded socio-political process that often privileges specific worldviews (Linton, 2010; Molle, 2008). For example, the identity of water in the first recital of the European Union's (EU) Water Framework Directive (WFD) is the product of protracted negotiations by different stakeholders (Kaika, 2003):

Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such.

[EU, 2000, p. 1]

In an apparently contradictory manner the WFD highlights that water has simultaneously market and non-market values (Calvo-Mendieta et al., 2011). This provides a somewhat awkward definition for water that reveals some of the inconsistencies and tensions arising when defining water across multiple social, cultural, political and geographical boundaries. With water management being a globally contentious issue, understanding the various interpretations of water underpinning policy could facilitate a critical examination of the assumptions held by policy makers and the likely material outcomes for diverse stakeholders within and across jurisdictions. Through an analysis of definitions of water provided in legislation across the EU, we reveal encoded meanings of water and how these reflect approaches to water governance across the European waterscape(s).

Given that water is indispensable for human life, it is unsurprising that it has been the subject of a wide variety of legislation and policies, domestically and internationally, that attempt to regulate

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its provision in terms of quality and quantity. In the EU member states this has led to the ad hoc development of a variety of water laws and policies, ranging in scale from local government legislation to regional (EU) legislation with the passing of the WFD in 2000. In this paper, we examine different legal definitions that have been ascribed to water across related legislation within the EU. We argue that by unpacking these definitions, in the context of the broader politics, tensions and debates surrounding the governance of water in the neoliberal era, it is possible to access the embedded and formalised perceptions of water that drive particular management strategies and dominant ways of relating to water. This facilitates an appreciation of the embedded political assumptions regarding waterscapes and can highlight the implications of such assumptions in established societal practices.

Of particular relevance to interrogating the dominant socio-political influences upon perceptions of water is the emerging concept of the 'hydrosocial cycle' that is increasingly used by geographers to inform critical analyses of water governance regimes (cf. Boelens, 2014; Budds, 2008, 2009; Debbané, 2013; Linton, 2010, 2014; Linton and Budds, 2014; McDonnell, 2014; Mollinga, 2014; Schmidt, 2014). Initially proposed by Erik Swyngedouw in the mid-1990s (Swyngedouw, 1996), the hydrosocial cycle draws on the hydrological cycle (which describes the 'natural' process of continuous movement of water on, above and below the surface of the Earth) to emphasise interdependencies between flows of water and social processes (Budds et al., 2014). As such, the hydrosocial cycle highlights that water stores and flows are moderated by social, political, economic, and cultural relations and that these relations are, in turn, influenced by the materiality and physicality of water (Barnes, 2014).

Concepts of the hydrosocial cycle influence this paper in two ways. First, on a methodological level, we argue for the existence of multiple social constructions of water within the hydrosocial cycle and that legislative definitions of water provide a robust empirical window to examine the influence of these. As Budds et al. note, "water" is never simply H₂O but always produced as a particular 'water', materially and discursively, and within specific moments, contexts and relations" (Budds et al., 2014, p. 168). The concept of the hydrosocial cycle provides a way of understanding how different 'waters' are produced as moments within particular sets of social relations and historical contexts. Legislative definitions of water can thus be understood as empirical moments in water's discursive construction, with different definitions of water having different social implications. Second, on a normative level, we propose that the hydrosocial cycle could become a broader political project (beyond its current academic foundation) to offer a radical re-conceptualisation of water where social processes are embedded within dominant definitions. This latter proposition builds on the conceptual foundations of the hydrosocial cycle that challenge hegemonic notions of human–water relations. As Budds et al. attest: "the hydrosocial cycle is purposefully contrasted with the hydrological cycle, which is a dominant and enduring concept for portraying the physical states and flows of water, yet arguably regards water and water processes as asocial and apolitical" (2014, p. 167). The challenge then is to imagine what such reconceptualization would look like.

The analytical starting point for this paper is the EU's Water Framework Directive (WFD), widely regarded as a ground breaking piece of legislation designed to redefine water governance across the EU's 28 member states (Blösch, 2004; Carter, 2007; Moss, 2008). The main objective of the WFD is to achieve 'good ecological status' of water bodies across Europe (Carter, 2007; Collins et al., 2007; Collins and Ison, 2010) through river basin management regimes institutionalised across the EU (Moss, 2004). In particular, the WFD is problem-based legislation that aims to: (1) promote sustainable water use; (2) enhance protection and ecological

improvement of water bodies; and (3) contribute to mitigating the effects of floods and droughts (Blackstock and Carter, 2007; EU, 2000). While the overall implementation of the WFD is largely left to EU member states, the WFD does prescribe processes including the need for public participation (Article 14) and the use of economic instruments and principles (Article 9). This paper focuses on the latter aspect of the WFD and questions the definition of water as a commercial good. It is argued that the promotion of economic instruments in the WFD, which are framed as being universally applicable for achieving desirable ecological outcomes, is a reflection of socially constructed waterscapes where water is perceived narrowly as a resource that can be transformed into an economic commodity.

As a foundation for a review of related EU legislation, we begin by providing a critical review of water governance debates and the formulation of the WFD and follow with a review of national legislation relating to water (e.g., Water Acts, Water Supply Acts, Water Abstraction Acts, Environmental Acts, Flood Acts, etc.) across all 28 countries within the EU. Seventy-eight different pieces of legislation were reviewed in total. The legislation was sourced from government websites and through the FAOLEX legislative database.¹ Where necessary, documents were translated to English, and all were analysed to determine the ways in which water was presented and defined in the text. The overall objective was not to assign specific water definitions to specific countries, but rather to illustrate the various formal 'constructions' of water within relevant EU legislation and associated governance regimes. Although beyond the scope of this article, related legislation passed at the provincial and municipal levels is likely to contain additional definitions for water, a potential area for future research and analysis.

2. Broader context: from government to governance

Recent critical literature in geography, falling broadly under the field of political ecology, emphasises the transformation of water management regimes around the world under the general influence of a neoliberal economic ideology (Bakker, 2003a, 2005; Budds, 2004, 2009; Swyngedouw, 2005, 2009). Neoliberal ideology broadly advocates for the rolling back of the state apparatus, which is seen to impinge upon capital investment, commodity production, and market exchange (Heynen et al., 2007). A key element of this has been the notion of a need to transform water into an 'economic good' – most notably outlined in 1992 with the Dublin Principles – to ensure its security, this has become an increasingly hegemonic idea in water governance policies (Swyngedouw et al., 2002; Harris, 2013a). It has also entailed a shift from 'government to governance' with the increasing liberalisation of water markets along with the emergence of new institutions and actors in water provision and regulation (Kaika, 2003; Kaika and Page, 2003). There has been a transition – since the mid-20th century at least – from governments being the ultimate providers of water to citizens, to a broader complex governance milieu in which private sector actors and non-government organisations along with different tiers of government are involved in shaping water governance regimes.

Neoliberalism has ultimately become a dominant ideological position in the world but, as Heynen et al. (2007, p. 7) stress, it has come to occupy this position "not primarily through any 'inherent' power of the ideas themselves, but rather through political mechanisms and institutions that propel them to travel and become entrenched." As such, while hegemonic, its influence over water governance regimes is certainly not absolute, but rather there is variegation in terms of how its influence is manifested

¹ <http://faolex.fao.org/>.

across time and space (Sneddon, 2013; Harris, 2013a; Goldin et al., 2013). This can be seen in the WFD, which, even though it is the product of a multi-state organisation *prescribing* a water policy (seemingly antithetical to neoliberal ideology), emphasises the changing of laws, rules and conventions to produce new legal and institutional frameworks that promote and facilitate marketisation (Swyngedouw, 2005). It thus entails politically directed intensification of marketization and commodification (Harris, 2013a). As will be explored in the later section of this paper, however, the influence of the WFD is likely to be realised in different ways across the EU 28 members.

The process of neoliberal market environmentalism of water has generally involved three interrelated (and often incorrectly conflated) processes: privatisation, commercialisation (or marketization) and commodification (Bakker, 2005; Harris, 2013b). Privatisation entails a change of ownership or the handing over of management from public sector to the private sectors (i.e., organisational change that often requires a regulatory platform); commercialisation involves changes in resource management practices that introduce commercial principles and objectives such as pricing mechanisms and cost-benefit analyses (i.e., institutional change); finally, commodification results in the creation of an economic good (Bakker, 2005). While these processes are closely related and tend to occur simultaneously in neoliberal market contexts, distinctions between them are important to highlight to avoid assumptions regarding the range of potential outcomes arising from public sector retreat, the inclusion of the private sector, or adding an economic value to water across multiple geographies.

For example, Bakker's research on water privatisation in England and Wales during the 1990s discusses how the UK government's objective of commodifying water was ultimately a failure due to significant expenses associated with the infrastructure required for distribution (Bakker, 2001, 2003a). Water proved to be, in Bakker's terms, an 'uncooperative commodity,' which ultimately required the English and Welsh governments to reregulate the water sector and assist private sector actors in the provision of water (Bakker, 2003b, 2005). As Bakker concluded: "market environmentalism in water supply in England can thus be characterized as a case of successful privatisation, broad-based commercialisation, and failed commodification" (Bakker, 2005, p. 559). In contrast, in France, although it has a long history of water privatisation and is home to large multinational water companies (i.e., Suez, Veolia) (Harris, 2013b), key aspects of the water supply system in the country are still under government ownership and control (Calvo-Mendieta et al., 2011 1585). Neoliberal water governance regimes, therefore, have been far from homogenous, even within the EU, where nation states have adopted different tenets of market environmentalism. Furthermore, these processes, although becoming more prominent since the 1980s, are not neoteric or unidirectional, private water supply occurred in Europe as early as the 1800s, and shifts in terms of water supply strategies (from private to public, from public to private, and other variations) has been an ongoing phenomenon in most countries (Harris, 2013b). Our examination of the WFD here, therefore, offers a foundation from which to understand an emergent set of notions and relationships with 'water' at a particular juncture in Europe's history. With an emphasis on how hegemonic water governance notions have emerged, as well as how they are being challenged and countered.

Indeed, globally, critiques of market environmentalism have been prevalent in water governance debates (Hall et al., 2005). There has been an emphasis that water (or at least access to it) should be recognised as a human right due to its absolute necessity for maintaining human life. In Latin America, in particular, a number of countries (e.g., Uruguay, Ecuador, and Bolivia) have instituted constitutional changes to ban private water provision and to recognise implicit rights to water. Harris and Roa-García

describe this as being a form of post-neoliberalism and an effort to create a new geography of water governance that challenges hegemonic notions of market environmentalism (Harris and Roa-García, 2013; also see Roa-García et al., 2015). Similarly, in the European context, Ireland, through popular public support, enacted a policy of zero domestic charges for water provision in the 1990s, contrary to the tendencies shown by nearby England and Wales. In this instance, the cost of water provision and infrastructure was to be realised through taxes rather than economic pricing instruments (Kaika, 2003; Page and Kaika, 2003). In Berlin, there was a partial re-municipalisation of the city's water supplies in 2012 following the implementation of the WFD, representing a retraction of moves towards privatisation that occurred during the late-1990s (Beveridge et al., 2014). Consequently, neoliberal governance regimes, which have emerged as being hegemonic, have been far from absolute, even within the 'consolidation' of the EU as a unified region.

Important in these debates on water governance has been the notion of 'water scarcity' (Goldin et al., 2013). From a political ecology perspective, the notion of water scarcity is not absolute or naturally-given, but rather it is considered to be socially produced. This is not to deny that scarcity is a function of physical conditions, rather it emphasises how it can also be a function of human actions, cultural norms and perceptions, historical conditions, societal inequities, and the loci of control over water and other critical resources (Johnston, 2012; Otero et al., 2011; Goldin et al., 2013). Swyngedouw et al. (2002) argue that the discursive construction of water as being scarce can often become important in realising the commercialisation and privatisation of water, often resulting in incongruous alliances between marketeers and environmental movements. Whereby environmental movements use scarcity to promote 'conservationist' messages to the wider public, marketeers use the same notion to promote a willingness to pay, and the acceptance of market mechanisms. This 'crisis narrative' (Swift, 1996) surrounding water as a resource ultimately creates the political and social space for the private sector and NGOs to increase their stakeholder influence in water governance regimes, using a crisis approach to advocate for economic valuations of nature (Harris, 2013b). Water scarcity moves from being a 'natural' law to being an ordering proposition for capitalist society (Schmidt, 2012). Thus, the increasing influence of the private and NGO sectors in water governance has helped to create the notion of water as a 'product' that needs to be valued economically to ensure its conservation. Although their objectives differ in that the private sector is generally advocating for privatisation, while many NGOs have adopted a 'green markets' narrative arguing conservation requires the transformation of nature into commodifiable resources. In this sense, the social construction of (global) water scarcity has been a hegemonic idea that has operated in parallel, and entwined, with neoliberal water governance initiatives (Sneddon, 2013; Goldin et al., 2013). Under neoliberalism, solving the problem of water scarcity is therefore hinged on unleashing different types of economic and political governance configurations (Alatout, 2013).

Acknowledging the various outcomes possible through neoliberal market environmentalism, there is also a need to caution against a simplistic dichotomy of public versus private water governance regimes. Arguably, neoliberal approaches to water governance emerged as a solution to failed state attempts. However, Budds and McGranahan (2003) note that both approaches to water governance have struggled to ensure water quality, universal access and sustainable consumption levels. It is also not just a case of positing a human right to water as counter discourse to the privatisation of water (Bakker, 2007, 2010; Linton, 2012; Sultana and Loftus, 2012). Indeed, many water companies have come out advocating for 'rights to water,' as they do not perceive conflicts with

utility privatisation (Bakker, 2007, 2010; Linton, 2012; Sultana and Loftus, 2012). Rather movements countering neoliberal discourses and logics have tended to do so with a broader framework of universal access, justice and affordability of water (Harris, 2013b). There are broader questions posited in terms of who has the right to own and control the resource, rather than who has right of access in neoliberal contexts (Bakker, 2007). As noted earlier, in Latin America, human right to water laws have not just been about declaring water as a human right, but also about outlawing the marketization or privatisation of water. They were contending the notion of water being an economic good (Harris, 2013b). Overall, these counter movements have worked to slow or arrest the advancement of particular forms of neoliberal governance practices (Varghese, 2013).

What is truly at stake, therefore, with a neoliberal water governance regime is the disproportionate influence and control that corporations and associated institutions can hold, potentially producing scenarios where water and wastewater services are based on financial capability rather than need (Mitchell, 2012). The subsequent challenge being to countermand the hegemony of the 'water as property' paradigm versus the 'water as commons' paradigm (Straddon et al., 2012). Pradhan and Meinzen-Dick (2003, p. 37) sum up this task neatly, "rather than seeking a single, hegemonic type of water law or valuation of water, recognising the pluralistic legal frameworks, types of rights, and meanings of water is not only a more realistic viewpoint, but also one which can lead to more productive negotiations over water rights and water use". From a hydrosocial cycle perspective, waters flourish in different socio-economic contexts.

3. Development of the European Union's Water Framework Directive

The development of the EU's WFD reflects the broader debates regarding the provision of and access to water. Work on the WFD began in 1995, when the European Committee of the EU parliament (hereafter 'the Parliament') and the Council of Environmental Ministers (hereafter 'the Council') asked the European Commission (hereafter 'the Commission') to formulate a universal water policy (Kaika and Page, 2003). Over the next five years the final text of the Directive was developed through protracted and often conflicted negotiations between the Parliament, the Council and the Commission (Kaika, 2003). In 1998, environmental NGOs were invited by the Commission to inform the drafting process. That same year a debate on the need for the 'economic pricing of water' emerged. The Commission and most of the Parliament worked closely together and supported full-cost pricing, while the Council and some socialist MEPs were deeply opposed to the measure. Their concerns related to the economic burden that would be placed on some farmers and emphasised water's common heritage qualities (Kaika and Page, 2003). Private sector water corporations also became involved in the debate, lobbying their national governments, the EU Parliament and the Commission to include economic pricing as a key tenet in the WFD. They found an ally with the participating environmental NGOs who also advocated for pricing mechanisms to be used, albeit with environmental, rather than economic, objectives in mind (Kaika, 2003). It is noteworthy that only environmental NGOs (e.g. World Wide Fund for Nature (WWF); Royal Society for the Protection of Birds (RSPB)), and not socially-focused ones (e.g. Oxfam), were invited to participate in the drafting of the Directive. Overall, this highlights the tendency to abstract water from social contexts (Linton, 2014) and to assume that water governance only has ecological implications (Kaika, 2003).

The defining of water subsequently became a key issue with the Commission rejecting the Council's amendment that stated "water is not a commercial product like any other but instead is a part of Europe's heritage which belongs to the peoples of the EU and ought, therefore to be protected" (cited in Kaika and Page, 2003). The Commission claimed that the amendment was purely rhetorical and added nothing to a legal text; however, as Kaika and Page note, "this careful policing of the language employed to characterize water is indicative of the shift within the Commission towards giving high priority to the idea of water as an economic good, and subsequently to water pricing as a key tool for environmental protection" (Kaika and Page, 2003, p. 320). Indeed, the definition that was used in the final WFD document ('Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such') removes the definitive conclusion that water is *not* a commercial product and asserts heritage value rather than (EU-wide) communal ownership rights. As such, this wording allows for water to be considered a unique 'commercial product,' while the defining of who owns the resource and how (i.e., communal, individual, national) has been left open. The linking of commercial and heritage values also tends to lessen the intrinsic value of water, towards, instead, a strategic conception of it as a somewhat static resource that needs to be secured.

The impetus for defining water in this way is consistent with the key economic instruments advocated in the text of the WFD for the management of water at different governmental levels across the region (Moran and Dann, 2008): "Member States shall ensure by 2010 that water-pricing policies provide adequate incentives for users to use water resources efficiently, and thereby contribute to the environmental objectives of this Directive" (EU, 2000, Article 14). Hence, reinforcing market environmentalism with limited consideration of the potential implications for sovereignty that may need to be addressed in future. As Straddon et al. (2012, p. 67) suggest, linking notions of water scarcity with property rights appears to present 'an insurmountable challenge to the idea of water as a commons':

Unfortunately for those convinced by the argument for a right to water, the WFD contains at its very heart the so-called Dublin Principles (1992) which conceive water and water services as property which is alienable and whose values ought to be determined by commodity markets.

[Straddon et al., 2012, p. 67]

The WFD is certainly not a hard-line neoliberal document; however, the promotion of commercialisation ideals could well represent neoliberal tendencies for more vigorous reforms in Europe's water sector, as water commercialisation is often followed by privatisation and commodification initiatives (Bakker, 2007). Debates regarding neoliberalism aside, such overarching tendencies can play an important role in shaping discourse and norms regarding water governance (Pradhan and Meinzen-Dick, 2003) laying the foundation for particular socio-political contexts and governance regimes. An examination of national level water legislation across the European Union in the next section emphasises how the influence of the WFD is not likely to be realised neatly across each national state, but rather a variegation of national constructions of waters emerges.

4. Formalised interpretations of 'water' among member states of the European Union

The framing and wording of the WFD represents dialogue and debate between select stakeholders over a five-year period. The subsequent implementation of the WFD, on the other hand, has occurred across the EU's 28 member states that represent a

diversity of geographies, cultures, political systems, environmental issues and water laws, each with different interpretations of directives and legal contexts (Keskitalo and Pettersson, 2012). Of the 78 water laws in the EU reviewed for this article, only 11 of them attempted to provide a direct definition of water (see Table 1).

In the remaining 67, the term water appears as an unproblematic signifier and is only defined to distinguish between different sources or types of water based on location or physical properties. For example, Estonia's 1994 *Water Act*, defines the following: *surface water* – “stagnant or running water, other than seawater, which is permanently or temporarily stored in a body of water, or water contained in a snow or ice field (Art 2.4); *aquifer* – “part of the earth's crust which contains and provides sub-surface water” (Art 2.5); *groundwater* – “means sub-surface water” (Art 2.6); *waste water* – “means water which is damaged beyond the level of harmlessness and which requires purification, or effluent or contaminated rain water” (Art 2.8); and *water body* – “a permanent or temporary surface form which is filled with flowing water (a watercourse – river, stream, etc.) or slowly moving (standing) water” (Art 2.17). Nevertheless, it should be noted that several distinctions, such as the distinction between surface water and groundwater, are social constructions based on heuristic convenience; as the hydrological separation between ‘two waters’ is often indistinct (for example see Munro and Melo Zurita, 2011).

The overall lack of specific legal definitions of water in the 78 legislations reviewed also appears to reflect Jamie Linton's notion of ‘modern water.’ Linton argues that such a notion, which originated in Western Europe and then later operating at a global scale during the 20th century, has been a hegemonic way of knowing and relating to water, “the main feature of which has been to abstract all the world's waters from their local, social, cultural, religious, and ecological contexts, to reduce them to a single substance, and thus render them commensurable” (Linton, 2014, pp. 112–113). He argues that the main epistemological effect of ‘modern water’ has been to drive it out of its social context, representing it as an ahistorical substance that can be reduced to an abstract quantity. This, in turn, makes it amenable to the application of instrumental reason and therefore particularly amenable to the growth of the modern state (Linton, 2014). For example, Bakker argues that water has been reduced to a ‘lubricant’ for industrialisation and urbanisation processes (Bakker, 2003a), and even now with the increasing domination of the service sector as the driver of the economy, water fulfils that same protagonist role (i.e., water is critical for capitalist forms of production). Constructing water as a material resource that is separated from its societal domain is consistent with the implications identified in the WFD, a suggestion that it can be manipulated without profound social consequences (Linton, 2014).

Among the countries where legislation provided definitions of water, Table 1 demonstrates significant diversity as to how water is encoded and framed. Nevertheless, there are tendencies towards technical descriptions, notions of fragility, heritage values, human rights and ownership.

For example, legislation from Ireland and Hungary emphasise technical definitions of water consistent with an engineering perspective. In Ireland's *Local Government (Water Pollution) Act, 1977*, water is framed as being “(a) any (or any part of any) river, stream, lake, canal, reservoir, aquifer, pond, watercourse or other inland waters, whether natural or artificial, (b) any tidal waters, and (c) where the context permits, any beach, river bank and salt marsh or other area which is contiguous to anything mentioned in paragraph (a) or (b), and the channel or bed of anything mentioned in paragraph (a) which is for the time being dry, but does not include a sewer.” In Hungary's *Water Management Act, 1995*, water is used as an umbrella term for both groundwater and surface waters. As such, these definitions align with the notion of ‘modern water’

where water is abstracted from its broader social, cultural, economic and political contexts.

The framing of water as a scarce and fragile resource was also present in some definitions, especially in areas with supply issues. Romania's 1996 *Water Law* frames water as “represent[ing] a regenerable but vulnerable and limited natural resource,” while Spain's 1985 *Water Law* simply states that “water is a scarce natural resource.” Spain's emphasis on water scarcity reflects its history and geography, where limited rainfall and a growing agrarian sector led to a highly manufactured waterscape with one of the highest proportions of surface area covered by reservoirs in the world (Bakker, 2005; Swyngedouw, 1999, 2007).

The human right to water, or at least the right to access potable water, was emphasised in French, Romanian and Belgium legislation. France's *Law on Water and Aquatic Environments* (2006) states that everyone should have the “right to access drinking water in economically acceptable conditions.” In Belgium, this right is defined more directly: “Everyone has the right to have quality drinking water.” As noted earlier, in multiple water debates (Bakker, 2007; Baskett et al., 1975; Branco and Henriques, 2010; Johnston and Donahue, 1998; Keskitalo and Pettersson, 2012; Langford, 2005), the notion of water as a human right has often been positioned in opposition to water's economic valuation and the promotion of markets to access it. However, historically, it has been the service of water provision that has been commoditised, rather than physical access to it. The integration of water as a human right in any legislation would assume in principle its ‘universal’ accessibility, but not necessarily free of financial costs.

The uses of water are also mobilised to shape definitions. France additionally noted that water is a “usable resource” that needs to be utilised while “respecting the natural balance.” Spanish and Romanian legislation both emphasised the “indispensable” aspects of water for life and that water plays a key role in realising an array of economic activities. The Czech Republic emphasises its essential role to “satisfy human needs.” In Italy, water for human consumption is prioritised with an acknowledgement of the needs of future generations – encapsulating what might be seen as a classic sustainable development definition of water (see Hermanowicz, 2008) and maybe as one of the few Acts that considers future targets. Overall, water's essential role in propagating human life is enshrined in these legislations.

Water ownership was also a constant theme, with legislation from Romania, Italy, France, Bulgaria, Belgium and Sweden emphasising that water is part of the public patrimony or common heritage. The nuances of these definitions, however, varied; for example, in Bulgaria, water is defined as being property of the “Republic of Bulgaria as a national indivisible natural resource” in France “water belongs to all and every person,” while in Sweden it was noted that “water should be protected and preserved as a common natural resource.” Italy declares water resources as being public and that they should be used in accordance with the principle of solidarity.

In contrast to the WFD, none of the 11 definitions found in the national acts emphasises water as a commodity or a commercial product. This has implications for water pricing initiatives at the national level and water privatisation processes; for example, can water be commoditised and sold on the market, when legally it is already owned by the country's citizens? This contradiction in definitions appears to reflect what Scharpf described as the “constitutional asymmetry between policies promoting market efficiencies and policies promoting social protection and equality” (Scharpf, 2002, p. 645). While in the process of European integration, economic policies have become progressively Europeanised, social-protection policies have largely remained at the national level. This is in part due to Europe's diverse social geography, where, for example, the Scandinavian model of universal social

Table 1
Legal definitions of water found in National Acts of EU state members.

Law (Country)	Definition
<i>Loi no. 92-3 du 3 janvier 1992 sur l'eau (France)</i>	Water is part of the common heritage of the nation. The protection, enhancement and development of this usable resource, while respecting the natural balance, is of general interest. The use of water belongs to everyone in the framework of laws and regulations and the rights previously established
<i>Loi no. 2006-1772 du 30 décembre 2006 sur l'eau et les milieux aquatiques (France)</i>	Under the laws and regulations and the rights previously established, the use of water belongs to every person, for food and personal hygiene. Every person has the right to access drinking water in economically acceptable conditions
<i>Ley 29/1985 de agosto, de Aguas (Spain)</i>	Water is a scarce natural resource, it is indispensable for life and for the realising of the vast majority of economic activities; it is irreplaceable, not expandable by the mere will of man [sic], irregular in form across time and space that is vulnerable and easily susceptible to successive uses
<i>Local Government (Water Pollution) Act, 1977 (Ireland)</i>	“Waters” includes—(a) any (or any part of any) river, stream, lake, canal, reservoir, aquifer, pond, watercourse or other inland waters, whether natural or artificial, (b) any tidal waters, and (c) where the context permits, any beach, river bank and salt marsh or other area which is contiguous to anything mentioned in paragraph (a) or (b), and the channel or bed of anything mentioned in paragraph (a) which is for the time being dry, but does not include a sewer
<i>Legge Galli L. 5 gennaio 1994, n. 36. Disposizioni in materia di risorse idriche. (Italy)</i>	All surface water and groundwater, although not extracted from the subsoil, are public and constitute a resource that is maintained and used in accordance with the criteria of solidarity. Any use of the water is contingent on safeguarding the rights and expectations of the future generations to benefit from an intact environmental heritage. The uses of water are directed to savings and renewal of resources to not affect the water resources, the liveability of the environment, agriculture, fauna and aquatic flora, processes geomorphological and hydrological balances ... The use of water for human consumption has priority over other uses of the body surface water or groundwater. Other uses are allowed when the resource is sufficient and provided they do not adversely affect the quality of water for human consumption
<i>Décret de la Région Wallonne relatif au cycle de l'eau et instituant une société publique de gestion de l'eau, 15 avril 1999 (Belgium)</i>	Water is part of the common heritage of the region. The water cycle is managed in a comprehensive and integrated manner, in an ongoing effort to ensure sustainability in the context of sustainable development. Everyone has the right to have a quality drinking water and sufficient for its food, its domestic needs and health
<i>Ordonnance du 8 septembre 1994 réglementant la fourniture d'eau alimentaire distribuée par réseau en Région bruxelloise (Belgium)</i>	This Ordinance applies to public service potable water in the Brussels Region. It guarantees that all persons residing in a building for residential use for which a connection or subscription was made, has the distribution of potable water for domestic consumption
<i>Water Act (ЗАКОН за водите), 1999 (Bulgaria)</i>	This Act regulates the ownership and management of waters within the territory of the Republic of Bulgaria as a national indivisible natural resource and the ownership of the water development systems and facilities
<i>1995. évi LVII. Törvény a vízgazdálkodásról (Water Management Act), 1995 (Hungary)</i>	Groundwater and surface waters (hereinafter referred to as water), the natural groundwater aquifers or surface waters of the riverbed and the banks
<i>Water Law, 1983 (Sweden)</i>	Water should be protected and preserved as a common natural resource
<i>Pentru modificarea și completarea Legii apelor nr.107/1996 (Water Law), 1996 (Romania)</i>	(1) Water represents a regenerable but vulnerable and limited natural resource, an indispensable element to life and society, a raw material for productive activities, a source of energy and a way of transport, a determinant factor for the preservation of the ecological balance. (2) Waters are an integral part of the public patrimony. The protection, revaluation and sustainable development of the water resources are actions of broad public interest

services and egalitarian social protection, remains beyond the capacity of other states (notably in East Europe) due to economic and political restrictions. This asymmetry subsequently creates potential tensions between nations and regions, whereby broader regional economic policies can constrain national level social policies due to tightening of fiscal budgets (Scharpf, 2002). Such ‘constitutional asymmetry’ is also indicated in environmental policy, where the EU, through the WFD, appears to have struggled to articulate an environmental policy without grounding it in the precepts of its broader economic rhetoric. Water governance interpretations in each of the different EU states have emerged from different socio-natural, historical and contemporary process, and are situated in differing political economies. In the following section, we explore the implications of the variety of approaches to legislating and defining water.

5. Discussion

There is ideological diversity of perspectives on whether water is a common good, an economic asset, or an entity capable of functioning in multiple ways as defined by dynamic physical and social contexts. Between the ends of the continuum between a common good and an economic asset lies a process through which water is transformed from a ‘natural’ common substance to a

semi-alienable ‘cultural’ commodity (Strang, 2009). The differing legal constructions of water ultimately produce material (social and economic) outcomes. The WFD therefore can be understood as not just being a directive to help improve water quality, but also an instrument that has implications for human–water relationships. As nations within the EU upgrade their respective water legislations, they may be expected to define water in a manner that aligns with the WFD’s characterisation. As such, the WFD is not just focused on improving water management, it also plays a role in (re)constructing water in a manner that is aligned with a broader neoliberal economic framework. There is an inherent contradiction in the WFD in this regard. The Directive promotes participatory governance regimes to achieve its objectives, yet at the same time it provides a pre-defined definition, produced by *select* actors, that obscures non-economic valuations and valorisations bringing into question the meaning of participation in the Directive.

Fig. 1 has been developed from the data gathered across the EU legislation reviewed and the WFD. It provides a breakdown of the different values that are ascribed to water and divides these along the heuristic categories of social, ecological, economic and heritage. Transposing water, as characterised in the EU’s WFD, over these different categories, we find that economic, environmental and heritage aspects of water are emphasised, while the social is marginalised. Where economic values are emphasised, water is

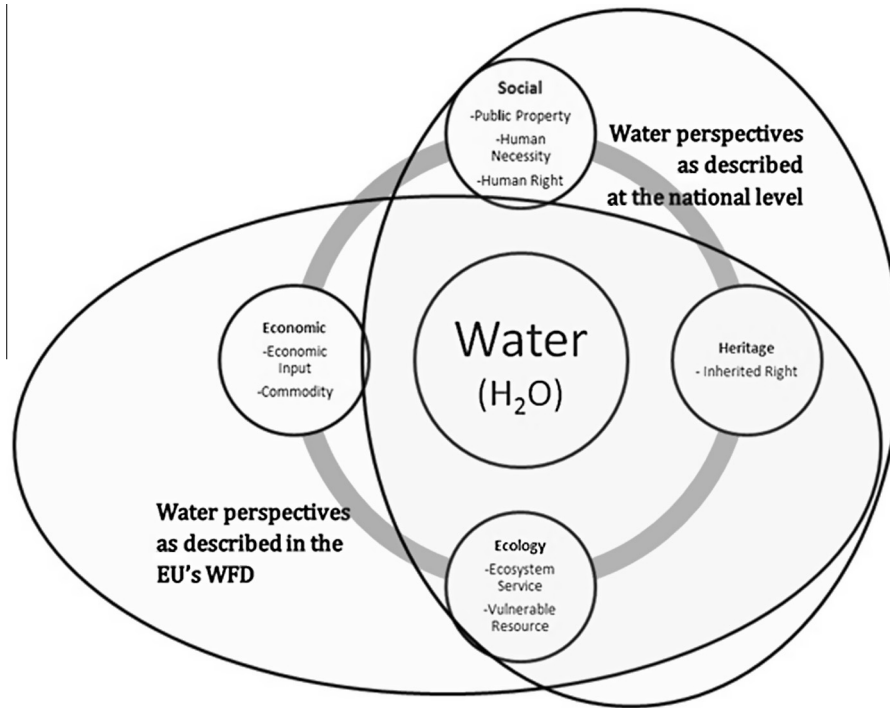


Fig. 1. Values and emphasis ascribed in legal water definitions for the EU and EU nation states. Data gathered from 78 pieces of EU legislation and the Water Framework Directive (WFD). The 'constitutional asymmetry' between the two different levels of definition are illustrated through the two ovals: one representing the values ascribed in the EU WFD; the other in EU national Level legislation (adapted from Scharpf, 2002).

identified as a commercial product with fiscal instruments posited as important means for achieving the WFD's objectives, while environmental values are framed in ecological terms. At first glance, the attempt to acknowledge heritage values appears inconsistent with the overarching economic emphasis. Nevertheless, if water is considered as inherited property then the desire to protect such 'property' suggests a closer link to the potential commoditisation of water, rather than socio-cultural and intergenerational equity perspectives of heritage. The identified link between economic and heritage values places further weight on the question identified earlier in the paper of who owns the inherited water—from which ancestors to which descendants does it pass. Does this assume that water is a static resource and that governance approaches are similarly unchanging? In the context of being owned communally among the nation's populace, then this creates issues for commodification surrounding its abstraction (Bakker, 2007; Sultana and Loftus, 2012); however, if it is owned by the national level by the government (implicitly for the people) then there are less barriers to its abstraction. Considering the diversity of conceptions of water included in the various definitions of the legal instruments of each country and the related government/governance contexts, the WFD proposal that emphasises water as a commodity that can be managed through economic instruments illustrates the emergence of a number of potential 'constitutional asymmetries' between national and regional levels. As with the diversity of outcomes possible through neoliberal market environmentalism, these insights suggest that the outcomes of the WFD are unlikely to be consistent across the EU. Hence, shifts towards greater participation and more engaging governance approaches represent the emergence of additional opportunities for revealing contextual differences and creating space for constructive and inclusive dialogue regarding the influence of these upon all elements within the hydrosocial cycle.

Nevertheless, shifts towards governance models do not necessarily represent commensurate shifts in power (Collins and Ison,

2009). With regard to the WFD, it is somewhat ironic that shifts towards greater social inclusion in decision-making processes have occurred simultaneously with a transition towards more narrowly defined outcomes that are arguably less representative. Analysis of the WFD suggests that while there is an increase in the number of stakeholders influencing regimes the capacity, or intention, to reflect the subsequent diversity of discourses is limited. It exemplifies how political agents can define what is or is not acceptable to debate in the context of water governance (Sneddon, 2013). In this instance, this has resulted in distinct discourses and seemingly conflicted alliances being placed or formed under the same umbrella of neoliberalism. The WFD is thus reflective of a techno-managerial approach for water management based on efficiency, productivity and inclusiveness—an example of what Swyngedouw (2013) describes as post-democratic socio-spatial configuration, where there is a subversive disappearance of the political from public debates and silencing some of the most pressing issues facing the domain of water. The proliferating conflicts and social struggles surrounding water dilemmas are discursively hidden, where little attention is given to these movements and visions, or to understand how these struggles are situated within a broader political-ecological framework (Swyngedouw, 2013). Defining water in the EU is thus a decisively political project.

What might a WFD document, sensitive to the concept of the hydrosocial cycle, look like? Scharpf, and his discussion on the dissonance between national level social policies and regional (European) level economic ones, provides some instructive insights as to how this might be realised. As Scharpf notes, due to the greatly varying social and political geographies, which have caused differing normative aspirations and institutional structures, homogenised social policies at the EU regional level are not politically feasible or, arguably, even desirable (Scharpf, 2002). Therefore, to reflect in the governance structure a hydrosocial cycle approach to water, the WFD would need to reconsider its prescriptive rhetoric (i.e., suggesting approaches on how its objectives are to be

achieved through targets and economic instruments) and focus instead on broader aspirations about social and ecological goals for future water governance. We therefore declare that the WFD needs to promote a multi-dimensional definition of water that is accompanied by metrics and instruments that reflect multiple values and with equitable and just participation (i.e., beyond just environmental-focused NGOs) as a means of enabling the legitimate reconciliation of those values in nationally-appropriate contexts. The WFD would then be more effective in creating a critical space for water governance solutions to be realised.

This does not preclude the possibility of water commercialisation as a governance tool. In this regard, we agree with Schmidt that in some cases pricing water “might be entirely appropriate in many circumstances—but not as a uniform prescription for coordinating diverse and heterogeneous communities under the guise of utilitarian success” (Schmidt, 2012, p. 105). There is ultimately a need to understand water as an element with multiple and dynamic socio-ecological dimensions and that water governance should similarly reflect and facilitate such diversity and potential for change. In this way, the elements of the hydrosocial cycle need to be considered in multiple spatial (i.e. local, national and international) and temporal contexts (historical, contemporary and future issues). This therefore includes the right of people to be involved in decisions that affect the way water and people are situated within the hydrosocial cycle (Linton, 2012).

6. Conclusion

In this paper we have explored the geography of water definitions across the European Union to identify how water is defined in relevant national legislation. A diversity of definitions was identified that included references to commercial utility, heritage, rights, and ecosystem services. In comparison, the WFD is based on a much narrower definition that emphasises water as a commercial good, governed through economic instruments (although this is also true for some national interpretations). Thus, while the WFD might be considered pioneering in terms of its ecological and participatory objectives, it nonetheless conforms to neoliberal ideologies in its prescribed approaches. In this way, the WFD definition is consistent with the notion of ‘modern water’ (Linton, 2014) where water is divorced from its social contexts and reduced to its economic and ecological qualities. The concept of the hydrosocial cycle presents a novel alternative for defining water that reinscribes socio-cultural contexts—conceptually and politically. Hence, recognition of the hydrosocial cycle could be instrumental in mobilising a broader political project towards water governance regimes and associated legal instruments that have the capacity to reflect diverse and changing contributions. The latter will become more significant as climate change plays out in the regional EU context impacting on the form, extent, and distribution of water dilemmas within nations, exposing the socio-ecological implications in particular, and affecting adaptation capacities and responses. This represents a departure from the static notion of water implied through heritage values and the narrow, market-based conceptions of water as a commercial product. Indeed, such a project is consistent with notions of sustainability and resilience that recognise interdependencies between social and ecological system dimensions, the social construction of economic values, and the inherent dynamism of systems more broadly.

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