

Transboundary water interaction II: the influence of 'soft' power

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Abstract This paper seeks to broaden the analysis of transboundary water interaction, by examining and interpreting the influence of 'soft' power therein. The 'soft' power of persuasion is understood to be exercised through discursive and to a lesser extent ideational means, and is interpreted in terms of compliance related to distributive (conflictual) or integrative (consensual) ends (after Scott (1994)). The focus is on inter-state water conflicts in hegemonic political contexts, where, it is found, the 'first among equals' has a greater ability to exploit 'soft' power and to determine the outcome. 'Soft' power is also seen to influence the choices states make or avoid in their transboundary water interaction, which explains in part how treaties intending to manage conflict may in fact delay or perpetuate it. For example, 'soft' power can be used by the basin hegemon to frame inequitable forms of cooperation in a cooperative light, such that unfair and ultimately unsustainable transboundary arrangements are replicated by the international donor community. Non-hegemonic riparian states also employ their capacity of 'soft' power, though may find themselves with little choice other than to comply with the arrangement established by the basin hegemon. The findings stress the importance of analysts questioning claims of interaction promoted as 'cooperative', and of examining the 'soft' power plays that underlie all transboundary water arrangements. Exemplification is provided through transboundary river basins and aquifers around the globe.

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1 Introduction

This paper explores the influence of ‘soft’ power in inter-state transboundary water interaction that falls short of violent conflict, with the goal to incorporate its role into water conflict analysis. The work complements the bulk of efforts devoted to environmental security research, which tend to focus on observable forms of power and on violent forms of conflict (e.g. de Soysa 2000; Hartmann 2002; Qutub et al. 2003; Dalby 2006; Gleditsch et al. 2006; Le Billon 2007; Tarlock 2008). The political economy approach these authors take to the environment and conflict is welcome—particularly within what appears to be a resurgence of environmental determinism (e.g. Homer-Dixon 2007; Mazo 2010). But the focus leaves behind non-violent environmental conflicts that are nonetheless rife with tensions which are usually expressed verbally, if at all.

In his argument for an enhanced understanding of the practice of environmental governance, Newell (2008: 523) argues for analysis to take “seriously the less observable forms of power at work that determines which issues get addressed (and are subject to governance regimes) which are not and why.” Considering international water conflicts in particular (where violence is particularly sparse¹), Sneddon and Fox (2006) similarly call for a more ‘critical hydropolitics’ in which the role of the discursive nature of power is given a central focus. This paper’s exploration of the influence of discursive and ideational acts on inter-state transboundary water interaction follows that spirit, with particular consideration given to how they are used for distributive or integrative ends.²

This paper is the second of an effort that seeks to strengthen the environmental research community’s analysis of transboundary water conflict and cooperation. Zeitoun and Mirumachi (2008) first called into question established methods of analysis that employed a continuum to examine *either* conflict *or* cooperation. They argued that a two-dimensional model (the ‘TWINS matrix’) is the preferred analytical tool when conflict and cooperation are acknowledged to co-exist (see e.g. Mirumachi 2007). The authors suggested that transboundary water interaction took on subjectively defined positive, neutral and negative forms. Examples of the latter include *asymmetric cooperation* and *coercive cooperation*, where the terms of the interaction are not negotiable, and *dominative cooperation*, where the benefits of cooperative efforts pale in comparison with the pain they inflict. Policy and

¹ The Jordan River was subject to military power when fighter-jets and tank shells from Syria and Israel passed across it, in each state’s bid to halt the other’s infrastructure projects in 1955 and 1963 (el Musa 1997). But the analyst looking for evidence of damaged dams and flooded defences to assist with interpretation of hydropolitics will not get very far. When it comes to the control of transboundary flows, the treaty may be mightier than the F-16 fighter jet, and most water conflicts occur in the rather less headline-grabbing world of closed-door meetings, ‘Track-2’ negotiations, websites and donor’s reports and brochures. See Barnaby (2009) for an interesting explanation of the absence of ‘water wars’.

² The focus also complements the ongoing debate in *International Environmental Agreements* on the (independent) variables regarding the gap between intention and implementation of cooperative initiatives in transboundary waters. Recent contributions have begun to explore some of the reasons why multilateral agreements fail to deliver. Fox and Sneddon (2007), for example, argued that transboundary river basin agreements based on international watercourse law permit the legal principle of ‘equitable utilisation’ to be interpreted according to each riparian’s own wish within its territories. Kistin et al. (2009) reported that while there are many multilateral water agreements in place in Southern Africa, they lack explicit arrangements on water allocation.

programmes promoting unqualified “cooperation of any sort, no matter how slight” (UNDP 2006: 228) were criticised on the grounds that negative forms of cooperation need reform or resolution, not encouragement. In keeping with the bulk of the environmental security and hydropolitical literature, however, the authors made only glancing references to the role of any form of power, and avoided grappling with the issues of compliance and consent that are related to ‘soft’ power in particular.

The analysis here is limited to hegemonic political contexts, where the ‘first among equals’ has a greater ability to exploit ‘soft’ to power and shape the outcome of the conflict. We claim that the incorporation of ‘soft’ power into the analysis of conflicts in hegemonic contexts provides useful insight into two processes: the choices riparian states make or avoid in their transboundary water interaction and how negotiations and treaties can lean away from conflict resolution as they lean towards conflict management.

‘Soft’ power and the features of state interaction particular to hegemonic contexts are discussed conceptually, next. The discussion is followed by a cursory review of a number of transboundary cases where ‘soft’ power is active in influencing choices, treaties and negotiations. The approach is reconciled with the forms of interaction over transboundary waters in the final section, which also draws out analytical and policy implications.

2 ‘Soft’ power and water in hegemonic contexts

This section reviews select conceptual literature on power and International Relations theories related to non-violent conflicts in hegemonic contexts. Because power is an “essentially contested” concept within social science (Lukes 2005: 477), the distinction between hard and ‘soft’ power is worth making. In waging water conflicts, states more often employ words and ideas ahead of actual violence, and this difference in the means of battle serves to contrast the two broad forms of power. As Dinar (2009) convincingly notes, the use of violence (hard power) in hydropolitics is neither cost-effective nor attractive. There is instead what appears to be a constant framing and reframing of problems and attempts to influence actors’ perceptions of the problem, of the situation, and of each other—what can be considered exercises of ‘soft’ power, at least for the purposes of this paper.³ While ‘hard’ power relates chiefly to the material (and the use of force), in other words, ‘soft’ power concerns primarily the immaterial (and the use of persuasion).

Effective ‘soft’ power, according to Nye (1990: 31), is “getting others to want what you want”.⁴ In extreme cases, compliance may be assured without an awareness of the transaction. As the eminent power theorist Steven Lukes asks, “is it not the supreme exercise of power to get another or others to have the desires you want them to have—that is, to secure their compliance by controlling their thoughts and desires?” (Lukes 2005 [1974]: 27). Compliance, the authors argue, can be assured through consensual,

³ Oğuzlu (2007) views the issue differently, in what he calls the ‘logic of action’: “... the main difference between these two types of power stems from the kind of ‘logic of action’ that governs the behaviour of agents. If an instrumental logic of action were in play, meaning if the goal were to force others to make a cost-benefit analysis through coercing or coaxing strategies, then one could talk about hard power. If the goal were to ensure that others would automatically follow the lead of the power-holder due to the power of attraction the latter has in the eyes of the former, then one could refer to the existence of ‘soft’ power”.

⁴ The way in which compliance is assured makes a great difference to the degree to which the exercise of power is regarded as positive or negative by the complying side. Lustick (2002), for example, viewed the nature of compliance in terms of mechanisms used to ‘produce’ it (see Zeitoun and Warner 2006).

non-violent and apparently non-coercive approaches, as we will see has been the case along the Jordan River.

While the control of thoughts and desires can never be fully achievable,⁵ the extent to which it is possible at all occurs through the realms of discourse and of ideas. Discursive power is exercised through language in formal negotiations or through the news and entertainment media, public relations, rumours. The framing of issues in non-contestable security grounds ('securitisation') is an increasingly frequent demonstration of the function of the exercise of discursive power (e.g. Buzan et al. 1998). Ideational power, on the other hand, is exercised through informal negotiations, jockeying for position and the elaboration of the status quo (which, within the analytical parameters defined here, is asymmetric in favour of one actor). The discussion is initiated by Bachrat and Baratz (1962)⁶ and deepened in Scott (1994, 2001), Lukes (2005 [1974]) and Gaventa (2005, 2010). Words and ideas complement deeds to great effect quite regularly, we shall see, on the Nile and Ganges rivers.

2.1 'Soft' power exercised for distributive or integrative ends

An examination of the function of the exercise of power permits useful analytical categorisation. For Bachrat and Baratz (1962) and Lukes (2005 [1974]), understanding power means studying compliance: i.e. interpreting why a particular actor goes along with, or at least do not resist, decisions or structures the analyst may (perhaps mistakenly) perceive to be aligned with its best interests. Interpreting compliance obliges consideration of the reasons for compliance on the part of the complying party. The fundamental difference of interest between the dominant and subaltern actors is of importance here.⁷ In the best of worlds, transboundary water negotiations and management efforts may serve to meet the interests of all actors involved. In the real world, there are winners and losers, and the interests of some actors are met at the expense of others. These 'others' may, in turn, alter their interest to make the best of a situation, or remain on the losing end of the conflict of interests.

Based on Scott's insight into the motives of compliance, this paper distinguishes the exercise of 'soft' power with respect to its distributive or integrative ends. A conflict of interests is considered an exercise of distributive power, where the compliance of the subaltern is achieved through resignation. An exercise of integrative power is seen as a collective capacity stemming from harmonious social relations, where compliance is fully consented to Scott (1994). For water conflict analysis, compliance through resignation may be observed in cases where a basin state agrees to a transboundary water development

⁵ A potential analytical pitfall here is that of 'false consciousness'. The pitfall is perhaps more representative of defective thinking on the part of the outside analyst than it is of responses made by weaker parties' living within power structures. Scott (1985) and others demonstrate that the so-called weak have not only consciousness but powers of obstruction and the potential for successful improvements of their lot (through reform within the hegemony, or revolution against it). If the chance of successful rebellion is slim, playing along with the hegemon may, after all, meet the (altered) interests prioritised by the 'weaker' agent in the relationship.

⁶ Refer to the discussion on agenda-setting power in Bachrach and Baratz (1962: 950): "'mobilization of bias'... [can create] dominant values and the political myths, rituals, and institutions which tend to favour the vested interests of one or more groups, relative to others".

⁷ Which Scott (1994) has called 'sectional' and 'non-sectional' perspectives of power. Sectional power is asymmetrical, an element in non-zero sum conflict. Non-sectional power is collective power arising from 'harmonious communal organisation' and exists only in processes of legitimation.

Table 1 Classification of 'soft' power exercised for distributive or integrative ends

Ends or exercise of 'soft' power	Interests	Motive of compliance	Characterisation
<i>Distributive</i>	Interests conflict	Resignation	Conflictual
<i>Integrative</i>	Interests align	Compliance	Consensual

project because of political expediency. Such arrangements may be less robust in the long term than those based on compliance derived through consensus, as in a shared mission to improve transboundary water resource management.

In summary, the use of soft power by actors in transboundary water interaction may be usefully classified by its use for distributive or integrative ends, as shown in Table 1. As we will see, the categories are not mutually exclusive, and transboundary water processes observed engender a mix of distributive and integrative power, consent and resignations, conflict and its resolution.

Both distributive power and integrative power can be used to achieve compliance. Such is the case when formal negotiations are enhanced by informal events designed to strengthen one side's alternative (and hence bargaining position—the Best Alternative to a Negotiated Agreement, or BATNA (Fisher and Ury 1999)). Daoudy (2009), for example, has shown how the negotiations tactic of 'issue-linkage' has been employed as a form of bargaining power with distributive ends in the discursive interaction between the governments of Syria and Turkey over the Ilisu dam on the Tigris River. The coupling of the transboundary river issue with the security-related issue of Kurdish independence—along with the unlikely discursive alliance (see e.g. Hajer 1997) the Ba'ath regime made with International Rivers Network and international celebrities—substantially supported the relatively weaker Syrian side's efforts in 1999 to thwart the dam's construction (Warner 2008), at least temporarily. Similarly, India's signing of double bilateral Ganges River treaties with Nepal and Bangladesh to maintain the status quo in favour of India (Barrett 1994; Ahmad and Ahmed 2004) may be viewed as exclusionary devices within an inclusive process. The cases demonstrate how 'soft' power may be used in an integrative way towards distributive ends, or, in a more Machiavellian sense, an adversary cannot surprise when you have him locked in your embrace.

Such power-in-bargaining is contested and debated, by definition. It is characterised by the possible resistance that others can offer to it, however great their constraints, as Mustafa (2002) has shown in interpreting disparities in access to irrigation water and vulnerability to flood hazards in Pakistan. Scott (2001: 3) notes that the contestation brings a "dialectic of control and autonomy, a balance of power that limits the actions of the participants in their interplay with each other". Given this potential for resistance, power is more effectively exercised when an issue's contestability is not dealt with, i.e. when it is not even on the agenda—the softest form of 'soft' power (or Lukes' "supreme exercise" of power).

What is of most relevance to the analyst of transboundary water interaction, then, is the possibility that an integrative exercise of 'soft' power may allow issues to be framed by one actor in such a way that their portrayal is accepted without question, in some cases even unconsciously, by the other actor. In the extreme, the current 'order of things' can be accepted as the 'natural' 'order of things', when compliance is achieved not through the conscious world of bargaining but through the subconscious world of pre-determined

outcomes.⁸ At some point between fully conscious bargaining within an established order and unacknowledged acceptance of that order, the weaker side's implicit (or explicit) compliance with the outcome is assured.⁹ The work of water negotiators and analysts focussed on politically feasible 'pragmatic' ways to manage (rather than resolve) water conflicts may in fact overlook how such compliance is achieved (see e.g. Delli-Priscoli and Wolf 2008; Trondalen 2008). Yet compliance through resignation or (only) through official consent is temporary in nature, and may mask root causes of conflict that are better considered than ignored.

2.2 Why limit the analysis to hegemonic contexts?

The focus on water conflicts occurring in hegemonic river basin contexts expressly excludes two other types of settings: hierarchy and community. Acknowledging the differences between hegemonic and more equitable communal or more ordered hierarchical contexts is an important analytical starting point. Those interested in conflict resolution would do well to acknowledge, in other words, that an inter-state water conflict in the rough-and-tumble world of the Middle East cannot be understood and addressed in the same way that a water conflict in the European Union is, nor can it be readily compared to a sub-national water conflict.

Hierarchical contexts are regulated in national or international arenas where sovereignty in principle vests all hard power in the hands of a central authority having the sole legitimate disposition of the means of violence. No equivalent exists internationally. Compare the substantively different policy recommendations drawn by Scholz and Stiffler (2005), who explore the possibility of adaptive governance and collaborative planning at the sub-state level in Florida, with those of Conca's (2006) analysis of international water governance. If progressive and innovative transboundary management methods are a qualified success in the former case, it is largely thanks to the well-established US state and federal legal and regulatory frameworks. Conca finds no such innovation at the international level,¹⁰ where even basic data-sharing is problematic, and implementation of established water management paradigms such as Integrated Water Resources Management remains a pipe-dream of the international water elite. A more extreme version of the hierarchy at the international level occurs in imperial settings, where the rules of the game are clearly set by the colonizer.¹¹

⁸ Zeitoun (2008a) describes, for instance, how a discourse of 'cooperation, not rights' was adopted by Palestinian water authorities against the expressed intent of Palestinian civil society, but in-line with the views of their Israeli counterparts and their largest financial supporter USAID.

⁹ And it is through 'consent' that power over ideas blends with Antonio Gramsci's notion of hegemony. One of Gramsci's (2003 [1935]) significant insights into relations between authorities and those they have authority over was to interpret the give-and-take that goes on in exchanges between them (similar to Scott's 'dialectic of control'). As control is more readily maintained through a mix of force and consent (rather than through force alone), the consent of the weaker subject to a hegemonic arrangement is integral to its maintenance. That consent may be obtained and maintained in turn through institutionalised ideological domination—what Gramsci termed 'hegemony'.

¹⁰ The character of inter-state tensions over water in the absence of a central authority has been documented also in the case of the Aral Sea (Weinthal 2001; Wegerich 2008). The absence of an authority is even more relevant when there is also an absence of an agreed-upon code or standard (for work being done to fill these gaps, see e.g. McCaffrey 2007; Stephan 2008). Interesting perspective on the domestic-international dynamic is provided in the case of US-Mexico, in Milman and Schott (2010).

¹¹ The effects of hierarchy on Indian and Egyptian water planners who placed obligations to British colonial interests ahead of national or local ones has been explored in India by Headrick (1988), and on the Nile by

Today's modernist ideal, on the other hand, is of formal equality among a community where the rules are set collectively. Issues of security and sovereignty get decidedly less in the way of international water regimes being established in the EU than they do in Southeast Asia. National chauvinism in Europe may still be strong and diplomatic incidents are not unheard of (see Warner and van Buuren 2009 on the River Scheldt), but the Union does approach a hydro-community of sorts. The EU Water Framework Directive, for instance, is based on the 'soft' power of peer review rather than on punitive measures (Kaika and Page 2003). And while Germany and the Netherlands do not have fully equal influence in the Union, serious conflict on the Rhine river is not currently expected (see Lindemann (2005); van der Zaag (2007) and Dieperink 2010), despite the fact that the riparians could make each other's lives exceedingly difficult if so desired—by closing off access to the sea, or polluting or damming the river.

Most inter-state relations in the current world order sit between these two extremes—where formal equality is enshrined in principle, but not in practice. The conceptual middle area is, for the purpose of this paper, characterised as hegemonic (in the International Relations sense of the word), where the 'first among equals' carries more relative influence. It cannot be claimed that France and Chad, for example, have equal weight in New York, for example, though both have fully equal membership at the UN. Hegemonic contexts differ from those of an a-secure hydro-community, as competition is guided by this power asymmetry. They differ from hydro-hierarchy in that any water arrangement is not (necessarily) imposed without question but generated through more subtle mechanisms—the 'soft' power which is at the heart of this paper. Whether the 'first among equals' employs the 'soft' power of words and ideas in distributive or integrative fashion varies considerably with the interests particular to each context.

3 'Soft' power creating or limiting choices

This section surveys a number of hegemonic transboundary water arrangements in order to investigate the effects of the exercise of 'soft' power for distributive or integrative ends. In essence, it is shown that soft power can open up or shut down options for the riparian actors. It is argued that the more powerful side has greater ability to shape the outcome, indicating that inequitable hegemonic arrangements are more easily maintained than they are transformed.

3.1 The hegemon's prerogative

In discussing compliance with transboundary environmental arrangements, Falkner (2005: 586) highlights the multiple options open to the United States through what he calls a "revival of US hegemony", resulting in an "*a la carte* approach to environmental policy instruments". While selective decisions are not made within a vacuum, devoid of pressure from multiple internal and external sources, cherry-picking with whom and when to engage over environmental issues is a luxury that does not necessarily extend to the non-hegemonic side. Where there is real power asymmetry among formal equals, the decision to

Footnote 11 continued

Mitchell (2002) and Tvedt (2004), similar to what Gaffney (1997: 484), calls 'hydro-imperialism' in the case of California.

exploit the asymmetry in a distributive or integrative way is essentially the hegemon's prerogative.

There is considerable evidence supporting the view that the choice to act upon or ignore requests for cooperation that might alter a standing transboundary arrangement is available to the hydro-hegemon alone. The actions of the Turkish government prior to 1998, to return to the Tigris and Euphrates rivers, appeared to reflect then-President Özal's 1991 discursive volley that Turkey could do with the water what it wanted—such as stop the flow of the Euphrates for over a month to fill the Atatürk Dam reservoir—and effective dismissal of protests from the Syrian and Iraqi governments (Warner 2008). Similarly, in developing the waters of the Ganges River, sequential governments of basin hegemon India have countered Nepalese proposals of joint water development schemes through a mix of diplomatic negotiations and the compilation of scientific data of their preferred projects (see e.g. Dhungel 2009; Gyawali 2001).

The hegemon also has at its disposal more integrative methods to maintain or enforce a transboundary arrangement. The use of 'carrots' to achieve consent to a favoured arrangement is of course common, for example. The incentives often relate to issues not directly associated with water allocation *per se*. Turkey's 1990 verbal assurances to Syria (in the wake of its complete blockage capacity of the Euphrates) to release 500 m³/s on the Euphrates (Kolars and Mitchell 1991), may in this sense be viewed as an incentive to Syria to gain further cooperation on the broader political context (e.g. the 'Kurdish issue'). In the same way, later agreements by subsequent Turkish governments to single-time increases in flow increases releases (e.g. in 2005 (Rashid 2005) and 2009 (Terra Daily 2009a)) to assist with electricity supply and agriculture in Iraq have been publicly acknowledged as being driven in part by the desire to encourage cooperation with an Iraqi government significantly less driven by 'Arab Ba'athist' interests than previous ones (Rende 2005). Of note here is that in each of these cases, it is the non-hegemon riparian actors (Iraq, Syria, Nepal) requesting alterations to the choices and actions made by the hegemon—and not the other way around. The imbalance of discursive power and of the ability to make deals reflects the underlying power asymmetry between the rivals.

3.2 The non-hegemon's choice

While there are few examples of transboundary water interaction occurring in hegemonic settings where the status quo favours the weaker side, there is always 'wiggle-room', and no context remains static for long. Consider the challenges to the 1959 Egypt-Sudan Nile treaty which allocates the entire flow of the Nile to the two downstream states (Tvedt 2004). Upstream Ethiopia (or any of the remaining seven upstream riparians) would only be able to act with any independence in the hypothetical case that (currently hegemonic) Egypt had no interest in the flows (Waterbury 2002). The bilateral agreement has endured numerous changes in governments, revolutions, droughts and famines, and is highly influential 60 years on. Most recently, the asymmetric agreement has endured a decade of the process of negotiations and cooperation of the World Bank-led Nile Basin Initiative. The Egyptian position safeguarding the old treaty in these new multi-lateral negotiations is, however, becoming increasingly tenuous in face of demands expressed through collective bargaining power of the weaker states organised in an 'upstream block' (Cascao 2009a).

The positive-sum ideas of 'benefit sharing' (Sadoff and Grey 2002) and the possibility of creation of 'extra water' (e.g. through completion of the Sudd canal (Phillips and Woodhouse 2009)) had temporarily diverted the more contentious issue of river water re-allocation—which remains the main interest of most upstream states. Egyptian officials

like the ambassador to Ethiopia can continue to claim that there is no conflict on the Nile. "Egyptian–Ethiopian relations are not in a crisis. We do not even have problems. There are serious issues, which need to be addressed" (Kendie 1999: 141–142). Similarly, at a meeting of the 3rd World Water Forum which he chaired, Egypt's former water minister Mohammed Abu-Zayd stated that "there is no conflict or struggle between Egypt and any other Nile Basin country" (Brunnée and Toope 2002: 107). Such claims may be 'heard' more loudly than the backroom challenges of the upstream states, which are heard or reported on in fact by few outside of national circles. The declarations can thus be seen as attempts to frame the highly contentious issue as a non-issue. Indeed, as Cascao (2009a) points out, the success of the World Bank in creating a discursive platform among ten states that were generally hostile to each other in the recent past may in part be due to the prevention of the language of 'conflict' and 'redistribution' at various fora throughout the process—classic anti-politics (Ferguson 1993).

But the 2009 negotiations to establish a Legal Framework Agreement have brought the core issue (and interests) back to the agenda. Egyptian–Ethiopian relations in particular are strained, over implied re-allocation in the otherwise nondescript Article 14 of the draft text (see Nile-COM 2006, and Cascao and Zeitoun 2010). A clash of wills is being fought through words as the 'upstream block' pushes to erode the legitimacy of the 1959 treaty against the very clearly stated downstream interests. While the results of the discursive battle remain to be seen, of relevance to the analyst is the extent of the influence of the bargaining power of the weaker actors. The utility of the latter's 'soft' power is bounded by the decision of the hegemonic actor to use its power in an integrative manner, through its own consent to joining the deliberative (and integrative) Nile Basin Initiative process. Contemplation even of erosion of the 1959 treaty would not have been feasible, in other words, had the basin hegemon not sought to use its power in an integrative manner—a point made differently in Seide (2010). The upstream challenge on the Nile demonstrates that once engaged in an integrative discursive process, the so-called weaker side at least retains a possibility of shaping the outcome. Ethiopia would have considerably less leverage than it currently is flexing had Egypt excluded it from or had it not participated in the NBI process, in other words.

Classic negotiations texts (e.g. Zartman and Rubin 2002) are replete with examples of how the so-called weaker side may leverage its bargaining power to derive a suitable outcome. Depending on the form of cooperative arrangement imposed by or on offer from the hydro-hegemon (and whether its power is exercised in a distributive or integrative manner), the leverage afforded the non-hegemon riparians in this case is bounded by a choice to be pragmatic and 'join the game', or else to break the consent that may have been established on paper through treaty, and in the minds of the government officials.

The government of Jordan may have made the former type of 'choice' in its negotiation of the clauses of the 1994 Peace Treaty with Israel. Jordanian water officials involved in the negotiations quietly acknowledge that their inferior position at the table meant they had to compromise on the transboundary water issue in order to gain an improved bargaining position on higher-priority state security issues (e.g. Haddadin 2001). Though the water portion of the treaty is heavily skewed clause-by-clause in favour of basin hegemon Israel,¹² the terms of the water clauses of the treaty are publicly declared by Jordanian

¹² In discussing the use of ambiguity in treaty-making in the 1994 bi-lateral Israel-Jordan Peace Treaty, Fischhendler (2008) notes that—according to "Israeli accounting"—the Israeli side conceded between 35 and 105 million cubic metres per year of the Jordan River System (including the Yarmouk River), while securing agreement on its established use. A variety of sources estimate the established Israeli use of waters

authorities as a national achievement (e.g. Haddadin 2002, 2006, Shatanawi 2007). The process in this case is considered by officials in the non-hegemonic party to be consensual and integrative, and reflects consent, not resignation, to an inevitably skewed outcome. With the view that the weaker side did well ‘under the circumstances’ echoed by several analysts (e.g. Lonergan and Brooks 1994: 273, Shuval 2006, Sosland 2007: 173), the legitimacy of the treaty itself is reinforced, and its terms continue to define Jordanian–Israeli water interaction.

There is furthermore room for non-hegemonic states to choose to engage in a strategic or instrumental manner, when its interests do not align with those of the hegemon. As Haugaard and Lentner (2006) put it, utilitarian purposes may motivate states to interact, as they take an opportunity to gain relative to the alternative of no interaction at all. As Sneddon and Fox (2006: 182) observe, “cooperation in and of itself is not the desired end for third-world [sic] riparian governments who create transboundary governance institutions; rather, cooperation is perceived as the basis for proceeding with the development of water resources”. Possibilities for peacemaking in hegemonic contexts can offer a weaker government limited possibilities to satisfy other interests related to national development, for example. The weaker state may thus maximise the space that has become available to it, even as its preferred options may be closed down.

Once the Egyptian government decided to embrace the Nile Basin Initiative in the 1990s, for instance, the option for the government of Ethiopia’s of not joining was severely curtailed, by virtue of the political and economical opportunity costs it may have incurred in not ‘playing the game’ (i.e. less favourable access to one source of external funding). Whether the Egyptian government strategically mounted a hegemonic apparatus obliging Ethiopia to choose between cooperation and being excluded is a debate tangential to the point being made here. In consenting to the arrangement on offer by the basin hegemon, the Ethiopian government stands to gain from substantial financial (if not political) investment in the country by the World Bank and other donors that the Bank leads. The compliance made by the weaker government in this case may again be seen internally as an expression of agency through calculation and pragmatism, and not as resignation to an inevitable outcome. ‘Soft’ power here combines integrative means towards a distributive (compromise) end. The Nile conflict was left unresolved as it was managed through the NBI process, but the state of limbo hinged on the continued consent of Ethiopia secured through incentives. As it turns out, the consent could not be guaranteed in drastically altered political circumstances, including the rising prominence of Chinese investment in the region, the possibility of secession of South Sudan in 2011, and the strengthening of Ethiopia as a US ally in the region (Cascao 2009b).

Footnote 12 continued

from the Jordan Rivers System to be between 420 and 570 million cubic metres per year (Jridi 2002: 24, UNEP 2003: 11, HSI 2004: 288, Markel 2004a). According to “Jordanian accounting”, the Israeli side conceded between 225 and 295 million cubic metres per year (Fischhendler 2008). Actual flows from the system used by Jordan around year 2000 were roughly 135 million cubic metres per year, of which only 25–45 are additional releases by Israel (Courcier et al. 2005, see also Bilen 2009: 203). Jordan also lives informal inequitable arrangements on its only other two significant transboundary water sources: the Disi Aquifer (transboundary with Saudi Arabia) and the Yarmouk river (part of the Jordan River System, and transboundary with Syria).

3.3 Asymmetric treaties perpetuating conflict

As in hierarchical contexts, there is a certain amount of stability provided by the presence of a hegemon on a river basin (Lowi 1993). The sustainability of the stability remains a function of the fairness of the arrangement, however. A quick review of two transboundary water treaties on the Jordan River demonstrates that compliance with the selective cooperation arrangements set by the hegemon (what Chhotray and Stoker (2009) refer to in other contexts as “forced agreements”) does not come without cost to the weaker states, and that decisions taken in a reduced bargaining space are not likely to endure. Residents of Jordan, for instance, continue to bear the impact of the government’s endorsement of the inequitable distribution of Jordan River flows agreed to in 1994—regardless of how the act is portrayed by the negotiators after the fact. With similar unfavourable asymmetric arrangements also reached over transboundary water resources with Saudi Arabia and Syria, the government of Jordan itself is obliged to look for vastly more expensive alternatives such as the Red Sea—Dead Sea Conveyance structure (Haering et al. 2008) or the Disi-Amman pipeline (Ferragina and Greco 2008). Given the lengths that the government of Jordan must go to in order to ease itself of water provision constraints, a call for re-negotiation of the terms of the 1994 treaty could be expected at any moment.

Such demands for completely new water-sharing agreement are in fact being made just across the Jordan River—in the West Bank and Gaza. The terms of the water clauses of the 1995 Palestinian–Israeli Oslo II are also highly asymmetrical (effectively 90–10% in favour of Israel (AI 2009b)). They have nonetheless been heralded for setting in writing “Palestinian water rights” in limited parts of the land (the West Bank) (Wolf 2007, Bruch et al. 2010). Following Israel’s recognition of Palestinian rights, however, it was Israel’s prerogative to implement them, and Palestinian requests and negotiation for no more than this have been deflected or ignored (Selby 2003b, World Bank 2009). Subsequent Israeli governments with very different positions on the responsibilities of their state towards the residents of the occupied land have maintained the asymmetrical water allocation over their Palestinian co-riparians, despite two further rounds of direct negotiations, in 2000 and 2008 (see e.g. Lautze et al. 2005). Palestinian water professionals and negotiators may have abandoned hope (see e.g. Kawash 2007) as the integrative treaty and negotiation process initiated by the basin hegemon has not led to any detectable erosion of the inequitable distribution of the flows, and in many instances has amplified it (Zeitoun 2008a). Assertive campaigns for water rights are mounting, as a result (COHRE 2008a, b, AI 2009a), and occurring from within a political context that is increasingly unstable.

The lessons from the two Jordan River treaties and the discursive processes on the Nile demonstrate that agreements in and of itself cannot serve as a robust indication of ‘soft’ power exercised for either integrative or distributive ends. In the case of the Nile, the 1959 treaty is the source of increasing tensions, and the use of ‘soft’ power by Egypt towards integrative ends is being severely tested by the ‘upstream block’ through the use of the draft framework agreement. The water portion of the 1994 Jordan–Israel treaty is viewed officially a source of peace and not openly challenged, though its asymmetric clauses may one day be challenged especially with altered political circumstances in Jordan. The water portion of the 1995 Palestinian–Israeli treaty is also severely distributive and has already generated the tensions anticipated in Jordan. The analyst seeking patterns in the deployment of ‘soft’ power must step back to examine the broader context particular to each case.

4 'Soft' power and forms of interaction

This section relates the integrative or distributive expressions of 'soft' power to the classifications of *positive*, *neutral* and *negative* transboundary water interaction of Zeitoun and Mirumachi (2008). The implications of 'soft' power serving to manage or perpetuate water conflict are pulled out for the analyst and policymaker alike.

4.1 'Soft' power and Positive and Neutral Transboundary Water Interaction

So-called 'positive' transboundary water interaction was the term used to describe contexts where the interaction satisfies the interests of all players and culminates in an improvement (or at least a sustenance) of relations at the broader political level (Zeitoun and Mirumachi 2008). They are considered here alongside the much more diverse and possibly more common 'neutral' forms of transboundary water interaction. Turton and Funke (2008), for example, argue that hegemonic South Africa for example employs 'soft' forms of power to play a leadership role with Lesotho and Namibia on the Orange-Senqu River. While the 1980s apartheid regime employed hard power in a (very) distributive manner in its dominating relationships with neighbouring countries over issues, the authors argue, support of post-apartheid governments for water treaties and regional water management institutions with the larger framework of the Southern African Development Community is evidence of the new integrative manner in which the power is exercised (see also Kistin et al. 2009). An evaluation of whether South Africa's transboundary water interaction with its neighbours is 'positive' or 'neutral' would have to take into account both whether the root causes of past tensions over water allocation and management issues have been addressed, as well as whether joint action is taken also to meet the interests of the downstream governments of Botswana and Namibia. Challenges for data and information exchange to feed decision-making between the states, in fact, remain (Raadgever et al. 2008), though the framework of the Orange-Senqu River Commission may level the playing field than through separate bilateral negotiations (Kistin and Ashton 2008). As with the case of the Nile Basin Initiative, room is provided for the non-hegemonic states to challenge the integrative arrangement orchestrated by the basin hegemon, or at the very least to challenge the assertion that it has established a form of 'positive' water interaction.

4.2 'Soft' power and negative transboundary water interaction

'Negative' transboundary water interaction describes arrangements that do not satisfy the interests of at least one of the parties involved, thus directly or indirectly degrading relations at the broader political level (Zeitoun and Mirumachi 2008). Unilateral development by Syria and Iraq of the resources of the Euphrates River in the 1960s and 1970s, for example, raised tensions between their respective ruling Ba'ath governments, to the point that they almost came to blows in 1975 (Drysdale 1993, Bílen 2009). Turkey's eventual development of the rivers upstream later raised tensions with both downstream states, thereby negatively affecting diplomatic relations, and establishing what until the late 1990s may be regarded as a 'negative' form of transboundary water interaction, enabled by 'soft' power exercised distributively.

Israel's successful capture of the lion's share of the transboundary flows with Palestinians is a rather more enduring example of negative transboundary water interaction. The approach of the multilateral Executive Action Team (EXACT) Working Group on Water Resources to cooperation between Israel, Jordan and the Palestinian Authority serves to

further exemplify. Supported mainly by the United States Agency for International Development (USAID) and the UK Department for International Development (DFID), EXACT derived from the Multilateral Working Group on Water Resources (MWGWR), which originated from the 1995 Oslo II agreement (DFID 2008: 25). According to the website of the Israeli Ministry of Foreign Affairs, the MWGWR has enabled participants in the process to “transcend the realm of competing interests and create a situation in which all parties share benefits” (IMFA 2000), a view shared by USAID employees and Israeli water officials (e.g. Keidar 2006). The results of ten years of bargaining and ideas, however, speak more of ‘soft’ power exercised distributively to manage conflict than they do of integration, cooperation and resolution.

Israeli scientists participating in the project privately state that the interaction at EXACT is primarily between themselves and their Jordanian counterparts, as the Palestinian scientists ‘just aren’t technically equipped’ to engage at the same scientific level (Anon. 2005, pers. comm.). Palestinian participants point to political reasons limiting their effectiveness, which includes the irregular denial of movement clearances required from the Israeli side to attend scheduled EXACT meetings between Jordan or Israel. Access to Palestinian water technicians to attend an EXACT workshop on the Lake of Tiberias in Israel was denied in 2008, for instance, even as it occurred at the height of bilateral water negotiations held during the ‘Annapolis’ round of the Oslo diplomatic process—and a momentary high point in relations (Awed 2008; Kramer 2008). The exclusion at the technical level led the head of the Palestinian Water Authority to call off Palestinian participation at future meetings (Attili 2008).

Of note here is how the formal equality granted on paper to each side by the EXACT programme does not transcend inequality in practice. The requests of the Palestinian side for cooperation that might support the ongoing negotiations (which, from the Palestinian perspective, targeted re-allocation of flows) were not acted upon by the basin hegemon at the table of technical discussions. Efforts by long-term employees of the Department for International Development active throughout the years of meetings aimed at broadening the scope of the forum beyond data collection have also been resisted (Anon. 2008, pers. comm.-a, 2008, pers. comm.-b). Similar criticisms of legislative, regulatory and discursive (all ‘soft’) power exercised in a distributive manner to maintain the status quo in favour of the Israeli side have been very well documented by Selby (2003a, b) and more recently in a study identifying obstacles to development of the Palestinian water sector by the World Bank (2009). The extensive documentation shows that the choice of options on offer to the non-hegemon in such a negative form of transboundary water interaction are very limited indeed leave the latter effectively bereft of choice.¹³

4.3 Implications for analysis and research and policy

The relation between the effects and use of ‘soft’ power by the hydro-hegemon with the form of interaction is suggested in Table 2. The suggested classifications have yet to be borne out by wider or deeper testing. The summary overview of the effects and use of ‘soft’ power in establishing negative forms of interaction nonetheless hold implications for further research. The interpretation of evidence reinforces the assertion, first, that in hegemonic circumstances, the stronger side has a greater ability to determine (and frame) the form of interaction it prefers. Analysts should thus bear in mind that the actual form of interaction observed at the moment of their research endures until the conflict is resolved.

¹³ Regime theory would describe such an arrangement as an ‘imposed-order’ regime (Young 1982).

Table 2 The relation between the exercise of ‘soft’ power and the forms of transboundary water interaction

Form of transboundary water interaction	Ends or exercise of ‘soft’ power (by hydro-hegemons)	Potential effect of the exercise of ‘soft’ power (for non-hegemons)	Features	Snapshot examples in 2009–2010*
<i>Positive</i>	Integrative	Closing down or opening up of options for transboundary management	Camaraderie, leadership Issue linkage policy areas beyond water	Germany and Holland on the Rhine
<i>Neutral</i>	Integrative and/or distributive	Closing down or opening up of options for transboundary management, or conflict resolution	Similar to above	Egypt on the Nile; Turkey on the Tigris and Euphrates
<i>Negative</i>	Distributive	Closing down of options for conflict resolution	Exclusion from/ stalling of meetings, agenda setting by the hegemon, securitisation, etc.	Israel on the Jordan India on the Ganges

* The form of transboundary water interaction is acknowledged to change, in flux with political circumstances, though this is not shown here or discussed in the text

The default position or ‘do nothing’ scenario disadvantages the non-hegemon, and thus the basin hegemon may have an interest in perpetuating the status quo more than its co-riparian actors do. It follows that any claim heard or first impression developed of an established ‘positive’ arrangement of transboundary water interaction be questioned for just how beneficial it is *for the non-hegemon* (and looking beyond elite interests, there). It also follows that an explicit examination of the ‘soft’ forms of power that may be active in underpinning the arrangement—particularly when viewed from the perspective of the non-hegemon—may yield greater insight into and explanation of the roots of the water conflict.

A second analytical implication deriving from the findings is the need to rigorously interpret the legitimacy that is given to an arrangement organised by the hydro-hegemon through the consent of the non-hegemon. An official nod to the arrangement from representatives of the government of the non-hegemonic side may serve to assure it access to the benefits on offer, but may also engender limitations that threaten the sustainability of the arrangement. Indications of sustainability may be gleaned through the form of compliance—whether the arrangement has been complied with freely through consent, or through resignation (see Table 1). The costs of compliance with the agreement (e.g. missed opportunities as a result of non-compliance) can be significant in influencing the weaker states’ future capacity of bargaining power. The short-term benefits of the compliance for the stronger side are even greater—achieving consensus with little compromise—suggesting calculated strategic motivations for interaction that merit investigation by those analysing or interested in resolving the conflict.

This paper’s analysis of the extent and effects of ‘soft’ power are also relevant for the design and implementation of transboundary water initiatives. The paper has shown that an inequitable arrangement—even a blatantly inequitable arrangement—may be or become gradually accepted in the eyes of the international water community, as the harsher realities are veiled by exertions of covert (‘soft’) forms of power. Under such conditions, appeals to

third parties made by the weaker party for support to the alternatives they may propose are less likely to be 'heard' by third-party actors, much less acted upon. In this light, promotion of cooperation 'of any sort' can reinforce distributive and destructive power asymmetries, and thereby perpetuate conflict.

The brief review of the third-party supported NBI and EXACT programmes has also shown how donor initiatives may serve to manage water conflicts—at the expense of resolving them. The approach is in keeping with recent texts promoting water conflict management either indirectly (e.g. Trondalen 2008, see also Zeitoun 2008b) or—along with a very interesting focus on conflict *transformation*—directly (e.g. Delli-Priscoli and Wolf 2008). Though management efforts aimed at placating tensions are welcome, this paper's analysis suggests that efforts to end conflicts should be based on an awareness that the roots of the water conflict do not disappear when official compliance to an arrangement is secured. The grievances associated with unresolved water conflicts are felt first and foremost by those suffering from the conflict—but also entail risks of failure for negotiators.

5 Conclusion

The paper has explored the role of 'soft' power in non-violent transboundary water interaction in hegemonic contexts. 'Soft' power is exhibited in the choices riparian states make or avoid in their transboundary water interaction. The study has found that when there is a clear 'first among equals' and the lack of an objective authority or established standards, the integrative (harmonious) or distributive (conflictual) functions of the power of words and ideas are actively in use by the weaker and especially by the stronger actors. In different words, sure the little guy can win sometimes, but (s)he has much fewer options to shape the agenda, to promote preferred ideas or to assemble a cast of actors to implement a preferred arrangement.

Where an 'unfair' arrangement is offered in such hegemonic contexts, the options left to the non-hegemon are to challenge the existing situation or to make the best of it. The latter is found to be most effective when playing on the recognition of the hegemon's need for consent to its arrangement—a possibly substantial source of bargaining power for the non-hegemon. But in 'choosing' the pragmatic option, the non-hegemon also legitimises and perpetuates the arrangement, thus excluding the possibility of alternatives developed at a later date. The basin hegemon, on the other hand, is found to have greater freedom to determine its preferred arrangement, and to engage in interaction on its own terms. The hegemon retains its prerogative through power advantages in the discursive battles of negotiations and diplomacy, or through perpetuation and presentation of the arrangements as sustainable or inevitable. The arrangement established or on offer reflects the goal of the form of 'soft' power employed by the hegemon—whether it be integrative or distributive.

The appreciation gained of how interaction may be framed by the more powerful state obliges reconsideration of assumptions of apparently 'cooperative' forms of interaction. Analytical implications include an awareness that an arrangement understood as 'cooperative' for the hegemon—even when officially consented to by the non-hegemon—may conceal its more destructive effects, and the seeds of grievances that may grow with time. The consent of the weaker side may have been given for strategic reasons or under coercive circumstances, but should not be interpreted uncritically to mean the quality of the transboundary water interaction is always as it is sometimes portrayed.

The analysis strongly suggests that design of transboundary water initiatives would benefit from consideration of asymmetry in ‘soft’ power. A failure to do so has led in the past to long-term financial support suppressing conflict (in the case of the Nile) or perpetuating conflict (in the case of Palestine and Israel). Within these contexts, negotiations processes and treaties can lead towards conflict management but away from conflict resolution. Future efforts may be best focussed on the potential leadership of basin hegemony to transform from asymmetric to equitable water-sharing—a path suggested most recently in a cutting edge review of international water architecture (WWF-DFID 2010).

As this paper is built on an overview of select transboundary water contexts, many of the issues that have been opened up require deeper study. An important next step is to burrow into the use of ‘soft’ power analysis through detailed examination of its use in particular contexts. Interesting findings are expected through greater research into how and why transboundary water interaction includes and excludes specific views, voices and options. A second important step is to refine, focus and substantiate the meaning of ‘transboundary water cooperation’. Both this paper and the one it builds upon have highlighted the less benign faces of cooperation and suggested that the term be applied more selectively to reflect equitability and sustainability. This view is likely to be supported by proponents of international water law and environmental justice, and by many analysts focusing on merging water management principles with practice. Linking cooperation and equitability is expected to be opposed, however, by those who take a more national chauvinistic approach to transboundary water interaction. Many analysts may waver in between these positions, which suggest that research investigating the debate whether equity is a necessary or even desirable component of transboundary water cooperation is worth pursuing.

References

- Ahmad, Q. K., & Ahmed, A. U. (2004). Regional cooperation on water and environment in the Ganges basin: Bangladesh perspectives. In M. Mirza & M. Qader (Eds.), *The Ganges water diversion: Environmental effects and implications*. Dordrecht; Boston; London: Kluwer Academic Publishers.
- AI (2009a). *Thirsting for justice: Palestinian access to water restricted*. MDE 15/028/2009. London: Amnesty International.
- AI (2009b). *Troubled waters—Palestinians denied fair access to water: Israel-occupied Palestinian territories*. MDE 15/027/2009. London, Amnesty International.
- Anon. (2005, pers. comm.). *Discussion with Israeli water quality scientists monitoring quality of the Jordan River*. Personal communication with author, Near Jericho, West Bank. 14 September 2005.
- Anon. (2008, pers. comm.-a). *Briefing of progress at the EXACT meetings of April 2008*. Personal communication with author, London, 27 May 2008.
- Anon. (2008, pers. comm.-b). *Briefing of progress at the EXACT meetings of June 2008*. Personal communication with author, London, 24 June 2008.
- Attili, S. (2008). *RE: Tiberias water management training*. Personal communication by email from the head of the Palestinian Water Authority and USAID PR, and wider USAID copy list, 27 May 2008.
- Awed, I. (2008). *RE: Tiberias water management training*. Personal communication by email between Palestinian Water Authority staff (anonymised) and USAID employees PR and NM, 26 May 2008.
- Bachrat, P., & Baratz, M. S. (1962). The two faces of power. *American Political Science Review*, 56, 941–952.
- Barnaby, W. (2009). Do nations go to war over water? *Nature*, 458, 282–283.
- Barrett, S. (1994). *Conflict and cooperation in managing international water resources*. Policy Research Working Paper 1303. Washington, DC, World Bank Policy Research Department.
- Bilen, Ö. (2009). *Turkey and water issues in the middle east: an examination of the indus, Colorado, Danube and Jordan-Israel water treaties and the Water Agenda of the 21st Century* (3rd ed.). Ankara: DSI İdari ve Mali İşler Dairesi Başkanlığı.

- Bruch, C., & Carroll Muffett, Wm., et al. (Eds.). (2010). *Governance, natural resources, and post-conflict peacebuilding*. London: Earthscan.
- Brunnée, J., & Toope, S. J. (2002). The changing Nile Basin regime: Does law matter? *Harvard International Law Journal*, 43(1), 105–159.
- Buzan, B., Waever, O., et al. (1998). *Security—a new framework for analysis*. London, UK: Lynne Rienner Publishers, Inc.
- Cascao, A. E. (2009a). Changing power relations in the Nile River Basin: Unilateralism vs. cooperation? *Water Alternatives*, 2(2), 245–268.
- Cascao, A. E. (2009b). *Political economy of water resources management and allocation in the Eastern Nile river basin*. London: PhD Department of Geography, King's College London.
- Cascao, A. E., & Zeitoun, M. (2010). Power, hegemony and critical hydropolitics. In A. Earle, A. Jägerskog, & J. Ojendal (Eds.), *Transboundary water management: Principles and practice*. London: Earthscan.
- Chhotray, V., & Stoker, G. (2009). *Governance theory and practice: A cross-disciplinary approach*. Basingstoke: Palgrave Macmillan.
- COHRE. (2008a). *Hostage to politics: The impact of sanctions and the blockade on the human right to water and sanitation in Gaza*. Geneva: The Centre on Housing Rights and Evictions.
- COHRE. (2008b). *Policies of denial: Lack of access to water in the West Bank*. Geneva: The Centre on Housing Rights and Evictions.
- Conca, K. (2006). *Governing water: Contentious transnational politics and global institution building*. Cambridge, MA, USA: Massachusetts Institute of Technology Press.
- Courcier, R., Venot, J. P. et al. (2005). *Historical transformations of the lower Jordan River basin (in Jordan): Changes in water use and projections*. Comprehensive Assessment of water management in agriculture, Research Report 9. Colombo, Sri Lanka, International Water Management Institute.
- Daily, T (2009a). Iraq says Turkey to double water supply. *Terra Daily*, 25 March 2009.
- Dalby, S. (2006). Security and environment linkages revisited. In H. G. Brauch, U. O. Spring, C. Mesjasz, J. Grin, P. Dunnay, N. C. Behera, B. Chourou, P. Kameri-Mbote, & P. H. Liotta (Eds.), *Globalization and environmental challenges: Reconceptualizing security in the 21st century*. Heidelberg: Springer.
- Daoudy, M. (2009). Asymmetric power: Negotiating water in the Euphrates and tigris. *International Negotiations*, 14(2), 361–391.
- de Soysa, I. (2000). The resource curse: Are civil wars driven by rapacity or paucity? In M. Berdal & D. M. Malone (Eds.), *Greed and grievance: Economic agendas in civil wars*. Boulder: Lynne Rienner Publishers.
- Delli-Priscoli, J., & Wolf, A. (2008). *Managing and transforming water conflicts*. Cambridge: Cambridge University Press.
- DFID (2008). *Water: An increasingly precious resource; sanitation: A matter of dignity*. Policy Booklet. London: Department for International Development.
- Dhungel, D. N. (2009). Historical eye view. In D. N. Dhungel & S. B. Pun (Eds.), *The Nepal–India water relationship: Challenges* (pp. 11–68). Dordrecht: Springer.
- Dieperink, C. (2010). International water negotiations under asymmetry, Lessons from the Rhine chlorides dispute settlement (1931–2004), doi:[10.1007/s10784-010-9129-3](https://doi.org/10.1007/s10784-010-9129-3).
- Dinar, S. (2009). Power asymmetry and negotiations in international River Basins. *International Negotiation*, 14(2), 329–360.
- Drysdale, A. (1993). Syria and Iraq—the geopathy of a relationship. *GeoJournal*, 28(3), 347–355.
- el Musa, S. (1997). *Water conflict—economics, politics, law and Palestinian–Israeli Water resources*. Washington DC, USA: Institute for Palestine Studies.
- Falkner, R. (2005). American hegemony and the global environment. *International Studies Review*, 7, 585–599.
- Ferguson, J. (1993). *The anti-politics machine: “development”, depoliticization, and bureaucratic power in Lesotho*. Cambridge: Cambridge University Press.
- Ferragina, E., & Greco, F. (2008). The Disi project: an internal/external analysis. *Water International*, 33(4), 451–463.
- Fischhendler, I. (2008). Ambiguity in transboundary environmental dispute resolution: The Israel–Jordanian water agreement. *Journal of Peace Research*, 45(1), 91–110.
- Fisher, R., & Ury, W. (1999). *Getting to yes: Negotiating agreement without giving in*. New York: Penguin Books.
- Fox, C. A., & Sneddon, C. (2007). Transboundary river basin agreements in the Mekong and Zambezi basins: enhancing environmental security or securitizing the environment? *International Environmental Agreements: Politics, Law and Economics*, 7, 237–261.
- Gaffney, M. (1997). What price water marketing? *American Journal of Economics and Sociology*, 56(4), 475–520.

- Gaventa, J. (2005). *Power and powerlessness: Quiescence and rebellion in the Appalachian Valley*. Chicago, USA: University of Illinois Press.
- Gaventa, J. (2010). *Power pack: Understanding power for social change*. Brighton, UK: Institute of Development Studies, University of Sussex.
- Gleditsch, N. P., Furlong, K., et al. (2006). Conflicts over shared rivers: Resource scarcity or fuzzy boundaries? *Political Geography*, 25, 361–382.
- Gramsci, A. (2003 [1935]). *Selections from the Prison Notebooks*. Hoare, Quintin and Geoffrey Nowell Smith, London: Lawrence and Wishart.
- Gyawali, D. (2001). *Rivers, technology and society; learning the lessons of water management in Nepal*. London, UK: Zed Books.
- Haddadin, M. (2001). *Diplomacy on the Jordan: International conflict and negotiated resolution*. Dordrecht: International Development Research Centre and Kluwer Academic Publishers.
- Haddadin, M. (2002). Water in the Middle East peace process. *The Geographical Journal*, 168(4), 324–340.
- Haddadin, M. (2006). Public presentation at full-day session on hydro-hegemony. *World Water Week August 2006*. Stockholm, Sweden: Stockholm International Water Institute.
- Haering, M., Maternowski, E. et al. (2008). *The Dilemma of the dead sea: A Reassessment of solutions from an IWRM-Perspective*. Amman, Water and Environment Research and Study Centre, University of Jordan and Institute for Technology in the Tropics, Cologne University of Applied Sciences.
- Hajer, M. A. (1997). *The politics of environmental discourse: Ecological modernization and the policy process*. Oxford, UK: Oxford University Press, Oxford Scholarship Online.
- Hartmann, E. (2002). Strategic scarcity: The origins and impact of environmental conflict ideas. Development Studies Institute. PhD thesis. London School of Economics and Political Science, London, UK.
- Hauggaard, M., & Lentner, H. (Eds.). (2006). *Hegemony and power: Consensus and coercion in contemporary politics*. New York: Lexington Books.
- Headrick, D. R. (1988). *The tentacles of progress: Technology transfer in the age of imperialism, 1850–1940*. Oxford, UK: Oxford University Press.
- Homer-Dixon, T. (2007). *Terror in the weather forecast*. New York City: The New York Times.
- HSI. (2004). *Development of utilisation and status of water resources in Israel (Annual Hydrological Report) 2003*. (Hebrew), Jerusalem: Hydrological Service of Israel.
- IMFA (2000). *From contention to cooperation—a case study of the Middle East Multilateral Working Group on water resources*. Tel Aviv, Israel: Israel Ministry of Foreign Affairs Archives, 17 April 2000. <http://www.mfa.gov.il/MFA/MFAArchive>.
- Jridi, A. (2002). *The development of the Jordanian Jordan River basin: The main historical steps*. Montpellier, France, Ecole nationale de genie rural, des eaux et des forets, centre de Montpellier (Engref), October 2002.
- Kaika, M., & Page, B. (2003). The EU water framework directive: Part I. European policy-making and the changing topography of lobbying. *European Environment*, 13, 314–327.
- Kawash, F. (2007). The water file: From Oslo to Annapolis. *Al Quds daily newspaper*. Ramallah, 25 November 2007.
- Keidar (2006). *Discussion with Jacob Keidar, former deputy acting director general for Middle Eastern affairs and head of the multilateral peace talks on water issues*. Personal communication with author, Jerusalem, June 2006.
- Kendie, D. (1999). Egypt and the hydro-politics of the blue Nile river. *Northeast African Studies*, 6(1–2), 141–169.
- Kistin, E. J., Ashton, P. J. et al. (2009). An overview of the content and historical context of the international freshwater agreements that South Africa has entered into with neighbouring countries. *International Environmental Agreements* forthcoming (accepted 10 Nov 2008).
- Kistin, E. J., & Ashton, P. J. (2008). Adapting to change in transboundary rivers: An analysis of treaty flexibility on the Orange-Senqu river basin. *International Journal of Water Resources Development*, 24(3), 385–400.
- Kolars, J. F., & Mitchell, W. A. (1991). *The Euphrates River and the Southeastern Anatolia development project*. Naff, Thomas, Water—The Middle East imperative. Carbondale, USA: Southern Illinois University Press.
- Kramer, A. (2008). *Regional water cooperation and peacebuilding in the Middle East*. Initiative for Peacebuilding Regional Cooperation on Environment, Economy and Natural Resource Management Cluster—Regional Case Study: Middle East. Brussels, Adelphi Research.
- Lautze, J., Reeves, M., et al. (2005). Water allocation, climate change and sustainable peace—The Israeli proposal. *Water International*, 30(2), 197–209.
- Le Billon, P. (2007). Scales, chains and commodities: Mapping out “Resource Wars”. *Geopolitics*, 12(1), 200–205.

- Lindemann, S. (2005). *Water regime formation in Europe: A research framework with lessons from the Rhine and Elbe river basins*. From conflict to collective action: Institutional change and management options to govern transboundary watercourses. Berlin, Germany: Forschungsstelle für Umweltpolitik.
- Loneragan, S., & Brooks, D. (1994). *Watershed: The role of fresh water in the Israeli–Palestinian conflict*. Ottawa, Canada: International Development Research Council.
- Lowi, M. (1993). *Water and power—the politics of a scarce resource in the Jordan River basin*. Cambridge, USA: Cambridge University Press.
- Lukes, S. (2005 [1974]). *Power: A radical view*, (2nd ed.). Hampshire, UK: Palgrave MacMillan.
- Lukes, S. (2005b). Power and the battle for hearts and minds. *Millennium: Journal of International Studies*, 33(3), 477–493.
- Lustick, I. S. (2002). Hegemony and the riddle of nationalism: The dialectics of nationalism and religion in the Middle East. *Logos*, 1(3 (Summer 2002)), 18–44.
- Markel, D. (2004a). Monitoring and managing lake kinneret and its watershed, Northern Israel—a response to environmental, anthropogenic and political constraints. *unpublished*.
- Mazo, J. (2010). *Climate conflict: How global warming threatens security and what to do about it*. London: Taylor and Francis, Ltd.
- McCaffrey, S. (2007). *The law of international watercourses*. Oxford: Oxford University Press.
- Milman, A., & Schott, C. (2010). Beneath the surface: Intranational institutions and management of the United States—Mexico transboundary Santa Cruz aquifer. *Environment and Planning C: Government and Policy*, 28, 528–551.
- Mirumachi, N. (2007). The politics of water transfer between South Africa and Lesotho: Bilateral cooperation in the Lesotho Highlands water project. *Water International*, 32(4), 558–570.
- Mitchell, T. (2002). *Rule of experts: Egypt, techno-politics, and modernity*. London: University of California Press, Ltd.
- Raadgever, G. T. (Tom), Mostert, E., et al. (2008). Assessing management regimes in transboundary river basins: Do they support adaptive management? *Ecology and Society* 13(1): Article 14 [on-line].
- Mustafa, D. (2002). To each according to his power? Participation, access, and vulnerability in irrigation and flood management in Pakistan. *Environment and Planning D: Society and Space*, 20, 737–752.
- Newell, P. (2008). The political economy of global environmental governance. *Review of International Studies*, 2008(34), 507–529.
- Nile-COM (2006). *Draft agreement on the Nile basin cooperative framework*. Extraordinary Meeting of the Nile-COM. Addis Ababa, 30–31 March 2006.
- Nye, J. (1990). *Born to lead: The changing nature of American power*. New York: Basic Books.
- Oğuzlu, T. (2007). Soft power in Turkish foreign policy. *Australian Journal of International Affairs*, 61(1), 81–97.
- Phillips, D. & Woodhouse, M. (2009). *Benefit sharing in the Nile river basin: Strategies for fresh water use at the country and sub-basin levels*. Entebbe, Report prepared for the Socio-economic Development and Benefit Sharing Unit of the Nile Basin Initiative.
- Qutub, S. A., Saleemi, A. R. et al. (2003). *Water sharing conflicts within countries, and possible solutions*. WASSA Project Reports, Volume 2. Honolulu, Water and Security in South Asia, South Asia Program—School of Advanced International Studies, Johns Hopkins University, and Global Environment and Energy in the 21st Century.
- Rashid, A. L. (2005). Address to the conference from the minister of water resources of Iraq. *Seminar on agricultural water in the middle east, SIWI world water week*, Stockholm, Sweden, Stockholm International Water Institute and the Israel Palestine Centre for Research and Information, 24 August 2005.
- Rende, M. (2005). Statement addressed publicly to the Iraqi Minister of Water Resources, by the representative of the Turkish Ministry of Foreign Affairs. *Seminar on agricultural water in the middle east, SIWI World Water Week*, Stockholm International Water Institute and the Israel Palestine Centre for Research and Information, 24 August 2005.
- Sadoff, C. W., & Grey, D. (2002). Beyond the river: The benefits of cooperation on international rivers. *Water Policy*, 4, 389–403.
- Scholz, J. T., & Stiffler, B. (Eds.). (2005). *Adaptive governance and water conflict: New institutions for collaborative planning*. Washington, DC: Resources for the Future Press.
- Scott, J. C. (1985). *Weapons of the weak: Everyday forms of peasant resistance*. London: Yale University Press.
- Scott, J. (Ed.). (1994). *Power: Critical concepts*. London: Routledge.
- Scott, J. (2001). *Power*. London: Polity Press.
- Seide, W. M. (2010). On Nile, Ethiopia goes soft to get tough. *Fortune Newspaper*. Addis Ababa, 521, 25 April 2010.
- Selby, J. (2003a). Dressing up domination as 'Co-operation': The case of Israeli–Palestinian water relations. *Review of International Studies*, 29(1), 121–138.

- Selby, J. (2003b). *Water, power and politics in the middle east—the other Israeli–Palestinian conflict*. London, UK: I.B. Tauris.
- Shatanawi, M. (2007). Public Address: Water quality problems in the water supply systems in the Arab region. *International conference on sustainable development and management of water resources in Palestine*, Amman, August 2007, House of Water and the Environment.
- Shuval, H. (2006). Water in the Middle East: Conflicting interests and cooperative approaches—An Israeli approach to resolving the Israeli–Palestinian water issues. *Water and Environment Workshop*, Prague, 12–14 June 2006.
- Sneddon, C., & Fox, C. (2006). Rethinking transboundary waters: A critical hydro-politics of the Mekong basin. *Political Geography*, 25, 181–202.
- Sosland, J. K. (2007). *Cooperating rivals: The Riparian politics of the Jordan River Basin*. New York, USA: State University of New York Press.
- Stephan, R. M. (Ed.). (2008). *Transboundary aquifers: Managing a vital resource: The UNILC draft articles on the law of transboundary aquifers*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- Tarlock, D. A. (2008). Water security, fear mitigation and international water law. *Hamline Law Review*, 31(3), 704–728.
- Trondalen, J. M. (2008). *Water and peace for the people: Possible solutions to water disputes in the Middle East*. UNESCO-IHP Water and Conflict Resolution Series. Paris: UNESCO Publishing.
- Turton, A., & Funke, N. (2008). Hydro hegemony in the context of the Orange River Basin. *Water Policy*, 10(Special Issue No. 2), 51–69.
- Tvedt, (2004). *The River Nile in the age of the British: Political ecology & the quest for economic power*. London: IB Tauris.
- UNDP (2006). *Beyond scarcity: Power, poverty and the global water crisis*. Human Development Report 2006. New York, USA, United Nations Development Programme.
- UNEP (2003). *Desk study on the environment in the occupied Palestinian territories*. United Nations Environment Program <http://www.unep.org/GC/GC22/Document/INF-31-Study.pdf>.
- van der Zaag, P. (2007). Possibilities and constraints of rainfed agriculture in Africa: securing food stocks by slowing the water flow. *Paper prepared for the NethCID symposium*, Delft 22 March 2007.
- Warner, J. (2008). Contested hydrohegemony: Hydraulic control and security in turkey. *Water Alternatives*, 1(2), 271–288.
- Warner, J., & van Buuren, A. (2009). Multi-stakeholder learning and fighting on the River Scheldt. *International Negotiation*, 14, 419–440.
- Waterbury, J. (2002). *The Nile: National determinants of collective action*. Ann Arbor, MI, USA: Yale University Press.
- Wegerich, K. (2008). Hydro-hegemony in the Amu Darya Basin. *Water Policy*, 10(S2), 71–88.
- Weinthal, E. (2001). Sins of omission: Constructing negotiating sets in the Aral Sea Basin. *Journal of Environment and Development*, 10(1), 50–79.
- Wolf, A. T. (2007). Shared waters: Conflict and cooperation. *Annual Review of Environmental Resources*, 32, 241–269.
- World Bank (2009). *West Bank and Gaza: Assessment of restrictions on Palestinian water sector development sector note April 2009*. Middle East and North Africa Region—Sustainable Development. Report No. 47657-GZ Washington, The International Bank for Reconstruction and Development.
- WWF-DFID (2010). *International architecture for transboundary water resources management: Policy analysis and recommendations*. London, Worldwide Fund for Nature and the UK Department for International Development, with Pegasys Strategy and Development, and the UNESCO Centre for Water Law, Policy and Science, February 2010.
- Young, O. R. (1982). Regime dynamics: The rise and fall of international regimes. *International Organization*, 36(2), 277–297.
- Zartman, W. I., & Rubin, J. Z. (Eds.). (2002). *Power & Negotiation*. Ann Arbor, MI, USA: The University of Michigan Press.
- Zeitoun, M. (2008a). *Power and water: The hidden politics of the Palestinian–Israeli conflict*. London: I.B. Tauris.
- Zeitoun, M. (2008b). Review of Trondalen, J.M. water and peace for the people: Possible solutions to water disputes in the Middle East. *Water Alternatives*, 2(1), 292–294.
- Zeitoun, M., & Mirumachi, N. (2008). Transboundary water interaction I: Reconsidering conflict and cooperation. *International Environmental Agreements*, 8, 297–316.
- Zeitoun, M., & Warner, J. (2006). Hydro-hegemony: A framework for analysis of transboundary water conflicts. *Water Policy*, 8(5), 435–460.