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Hydropolitics in the Jordan River basin  
The conflict and cooperation potential of water in the  
Israeli-Palestinian conflict

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*A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Philosophy in  
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## **Declaration**

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# Hydropolitics in the Jordan River basin: The conflict and cooperation potential of water in the Israeli-Palestinian conflict

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## **Abstract**

This thesis aims to explore the hydropolitics in the lower Jordan River basin and the conflict and cooperation potential of water in the Israeli-Palestinian conflict. It is premised on two complementary hypotheses that presume (a) that water is a determinant factor in Israel's continuing occupation of the West Bank and (b) that the significance of the resource will prevent an overt conflict between the two parties and result in a tenuous cooperation. It approaches these issues from an eclectic methodological framework, drawing on hydro-hegemony and hydropolitical complex theories and the concept of securitization more generally. This combined approach allows examining various aspects of the transboundary water interaction between Israel and Palestine and explaining the extreme asymmetry of water allocations between the two political entities, thus uncovering the veiled water conflict that persists beneath the surface of cooperation. Hegemony, power, and compliance are key concepts that will be elaborated in this respect. Following the hydrological and institutional overview of the study area, the paper turns to the analysis of how the current situation of inequality is maintained, and more specifically to the securitization of water resources and the prevalence of hegemony in Israeli-Palestinian hydro-relations. Eventually, it is scrutinized what role competing water discourses play in these intricate processes and what prospects civil society actors have for altering the inequitable water allocations of the status quo and for achieving genuine cooperation by means of desecuritization and environmental peacebuilding. The paper concludes by affirming the nexus between water and politics and the contingency of a resolution of the Israeli-Palestinian water conflict on the wider political context. It also indicates areas for future research.

**Key words:** water conflict; water cooperation; hydropolitics; hydro-hegemony; securitization; Israeli-Palestinian conflict; Jordan River basin

For my mother Juliane and my love Bettina  
with affection and gratitude

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“With water, you can make politics. With land, you can make wars.”<sup>1</sup>

## **1. Introduction**

### **1.1 Research question and hypotheses**

Water is an indispensable resource for human life and prosperity and the (unequal) distribution of, access to, and control over qualitatively and quantitatively adequate amounts of water is not only of ecological, economic, and epidemiological interest, but is ultimately a highly political question with consequences on multiple levels of political organization and, thus, analysis. The uniqueness of water lies in both its essentiality for any form of life and its concurrent limited availability, which distinguish it from other natural resources and make its management so pivotal. However, the degradation and depletion of the environment render freshwater resources increasingly scarce, a development that is particularly dramatic in arid and semi-arid regions of the world, such as the Middle East in general and the Jordan River basin in particular, which already faces severe water stress. The environmentally determined water scarcity in this latter ‘hydropolitical complex’ (Turton 2001) is further complicated by the intricate political context of the occupation of the Palestinian territories by the State of Israel and its respective consequences on water allocation and management, as well as by the continuing tensions and hostilities between the latter and the other riparian states, notably Lebanon, Syria, and Jordan.

This situation inevitably gives rise to several delicate questions. First, given its limited availability and fundamental value, one may ask whether water has the potential to be employed as an effective means of cooperation between Israel and the Palestinian National

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<sup>1</sup> Shimon Peres at the International Symposium on Sustainable Water Management in Arid and Semiarid Regions, 15-19 May 1994.



Authority; or, on the contrary, if the increasing water scarcity will rather lead to a protraction or renewed escalation of the Israeli-Palestinian conflict. From this emerge the hypotheses that will form the argument of this thesis. The first hypothesis states that control over the Jordan River, its tributaries, and underground aquifers is a main reason for Israel's continuing occupation of the West Bank and hence contributes to the intractability of the conflict. The second hypothesis argues that water is a crucial resource that is too scarce and too precious in the region to threaten its availability through an armed conflict, resulting in a however tenuous peace or cooperation between the opponents. These hypotheses are designed to elucidate the overarching research question regarding the conflict and cooperation potential of water in the Israeli-Palestinian conflict. Any serious attempt at resolving the long-standing conflict must address the issue of water and provide a fair and sustainable allocation mechanism. This thesis thus aims to explain this seemingly ambivalent role of water and to explore ways of constructively employing it to foster regional cooperation and, possibly, peace. The hypotheses will be tested against a contemporary analysis of the stakes of the Israeli-Palestinian conflict and the Israeli occupation of the West Bank and the role that water verifiably plays in the relevant policy and security discourses. The absence or presence of water as a discernible factor in strategic considerations and political negotiations will verify or falsify the hypotheses, i.e. its role as a determinant factor of the occupation and a safeguard against overt conflict, whereas the cooperation potential of water will be scrutinized in light of recent environmental peacebuilding initiatives.

## **1.2 Justification**

There has been a growing body of literature on the water-conflict nexus since environmental factors entered the agenda of the scientific community and decision-making circles in the

1990s, concomitantly to a rising interest in climate change and its potential effects on societies and states more generally. Several contexts and scenarios of environmental and water scarcity are now covered, ranging from intrastate water management in developed countries via neoliberal privatization efforts targeting public water services to virtually any international river basin in the world (cf. Wolf 2002). The overview over water-related issues in the field of International Relations highlights the wide array of relational and interactive forms and the essentially interdisciplinary character that water management assumes, as well as its conceptual extensiveness. Of particular interest in the debate and at the center of this thesis is the popular idea of ‘water wars’ or water conflicts, as reflected in the repeated statements by opinion- and policymakers such as former World Bank Vice-President Ismail Serageldin and former UN Secretary General Boutros Boutros-Ghali, who in the 1990s famously stated that “wars of the next century will be over water” and that “the next war in the Middle East will be over water, not politics”, respectively (quoted in Selby 2005: 330, 339). While such media and policy discourses did receive some academic backing (e.g. Bulloch & Darwish 1993), there is relatively little empirical evidence of a direct causal link between environmental scarcity and violent conflict. Indeed, the comprehensive diachronic historical study of the incidence of ‘water wars’ has identified but an infinitesimal number of such armed conflicts in the past (Wolf 2002).

As a consequence of this growing awareness, the notion of ‘water wars’ is not only refuted on comparative historical grounds as more anecdotal than empirical, but is also increasingly theoretically critiqued. Trottier (2003) analyzes the rise of the idea of ‘water wars’ and of its counterpart, ‘water peace’, as hegemonic concepts that are being imposed and contested in a Gramscian war of position. Katz (2011) refers to the same phenomenon as the ‘hydropolitical hyperbole’, the propagation and dissemination of which directly serves the interests of certain groups within a society. He differentiates between various actors that stress ‘water war’

scenarios – politicians, academics, the media, NGOs, and the private sector – based on shared incentives such as calling attention to genuinely felt risks, raising the profile of developmental or environmental needs, or expanding pools of available funds, as well as out of several rather specific motivations (Katz 2011: 19-29). There is a web of interactions among mutually reinforcing incentives and the consequent actions that they trigger, and awareness of the intentional framing of environmental issues is the key to comprehending a subject matter such as the Israeli-Palestinian water conflict.

As a matter of fact, many authors now point out that environmental scarcity more often than not leads to cooperation between the affected parties (Homer-Dixon 1999), as armed conflict over vital resources would in many cases further reduce the quality and quantity of the contested resource, which would eventually be detrimental to either party's interests and objectives and result in a veritable lose-lose situation. In order to gain a more thorough understanding of environmental conflicts, it is crucial to broaden the notion of scarcity by complementing its physical with its social dimensions. Homer-Dixon (1999: 178) acknowledges that the causal role of environmental scarcity can never be separated from (often unique) contextual – i.e. social, political, and economic – factors, and that this interactive relationship makes it often impossible to determine the relative causal power of scarcity. The same conclusion, specifically with regard to water, is reached by Vieira and Ribeiro (2010: 851-2), who draw on Ohlsson's differentiation between first- and second-order water conflicts; the former is related to water resources scarcity arising from hydrological conditions and/or the increasing pressures on available water, whereas the latter category is related to social resources scarcity resulting from a societal incapacity to adopt adequate measures to deal with the social consequences of a first-order scarcity. Water conflicts are more closely tied to (bad) water governance than to water scarcity, which highlights the need

for models of adaptive governance and management, as particularly advocated by economists (e.g. Fisher & Huber-Lee 2005).

Moreover, the conceptualization of hydropolitics in terms of antagonism between conflict and cooperation is problematic in the sense that in many international settings, conflictual and cooperative behaviors coexist within a web of highly complex relations between a hydro-hegemon and weaker riparian states (van der Molen & Hildering 2005; Zeitoun & Mirumachi 2008). These complex realities can more accurately be grasped with what Zeitoun and Mirumachi label ‘transboundary water interaction’, which acknowledges the simultaneous existence of those two modes of behavior and is capable of accounting for the possibility that either one mode might actually veil the persistence and influence of its counterpart. In other words, seemingly conflictual water sharing arrangements may in fact advance cooperation, while formally cooperative arrangements may conceal and perpetuate conflict. This is a particularly useful conceptual tool with regard to the hydropolitical complex of the Jordan River basin and to the interaction between the State of Israel and the Palestinian Authority. As all parties depend on the same resources, they are ultimately dependent on each other and compelled to find and sustain ways to cooperate, which is especially significant in the narrower Israeli-Palestinian context, as the Palestinian authorities widely rely on Israeli water technology and expertise.

The unequal allocation of water resources in the occupied Palestinian territories has led some observers to accuse Israel of ‘hydro-apartheid’, as recently affirmed by the French parliament’s Foreign Affairs Committee (Glavany 2011; Ravid 2012). The topic of this thesis is thus not only important from an academic perspective, as it enables us to apply a novel theoretical framework to a specific case study and hence broadens our understanding of the water-conflict/cooperation nexus, but also from a more practical point of view, as the findings of this thesis may have immediate policy implications. The in-depth analysis of the conflict-

cooperation continuum in the Israeli-Palestinian context may substantiate current policy initiatives that promote water cooperation between Israelis and Palestinians as a means of overcoming the more fundamental political conflict between the two sides, or reveal the inadequacy of such single-issue campaigns.

### **1.3 Methodology**

The research question of this thesis can be best approached with a qualitative analysis of the asymmetrical power relations that shape the interactions between the regional hydro-hegemon and the other riparian actors in the hydropolitical complex of the Jordan River basin. To this end, an extensive review of the relevant literature will be conducted, both of primary sources such as official documents and reports, as well as of secondary literature such as journal articles and books covering the topic. Some of the notable thinkers and institutions in the field of water conflict research include Peter Gleick, Thomas Homer-Dixon, and Aaron T. Wolf, as well as the London Water Research Group. Substantial impetuses on the regional context were received from John Anthony Allan, Jan Selby, and Mark Zeitoun. The topic of this thesis has the additional merit of being able to be quantitatively backed, as there is empirical data on the allocation and use of water resources from the Jordan River and its underground aquifers that underscore the theoretical concepts of hegemony, power, and compliance. Possible problems that may be envisaged at the outset of the thesis regard the unbiased interpretation of the available information and the causal inference of the presumed central role of water in regional politics. The first problem will be countered by using an extensive range of literature, whereas the second one may not be empirically, but discursively tackled.

## **1.4 Structure**

The thesis will begin with a conceptual and theoretical clarification of the terms and notions that underlie the research question and hypotheses, specifically the concepts of hydropolitics and hydro-hegemony and the respective hydropolitical complex theory. As those concepts essentially revolve around power, a more nuanced examination of the various forms of hard and soft power and their interplay must be conducted. This first part will be followed by a contextual description of the hydrological and institutional settings in our study area. The examination of the existing water sharing agreements and forms of cooperation between Israel and the Palestinian Authority will allow substantiating or refuting the claim that Israel is the hegemon in this hydropolitical complex and facilitate the analysis of its power relations with the Palestinians. In a next step, the securitization of water resources in both Israel and Palestine and the hegemonic quality of their mutual relations will be analyzed in greater detail. The competing discourses surrounding water resources and civil society attempts at environmental peacebuilding and the use of water as a means to peace will be subsequently subjected to scrutiny. The findings of these sections will have important implications for the guiding hypotheses, which will be extensively discussed in the concluding chapter.

## **2. Theorizing water conflict and cooperation in the Jordan River basin**

Hydropolitics in the Jordan River basin in general and the Israeli-Palestinian hydropolitical relations in particular may aptly be analyzed through the conceptual lenses of hydro-hegemony and hydropolitical complex theory.

### **2.1 Hydropolitical complex theory**

The hydropolitical complex theory (HCT), as first developed by Michael Schulz and substantially elaborated in the works of Anthony Turton, heavily draws on the concept of (regional) security complexes as theorized by what has come to be known as the Copenhagen School of security studies (Buzan, Wæver & de Wilde 1998). This approach to international security employs a much wider concept of its subject matter than traditional approaches, which focused for the most part on its political and military dimensions and were rather state-centered in their outlook. Buzan and his colleagues (1998) broadened the concept extensively by incorporating the economic, societal, and environmental sectors into their analytical template (the latter of which is of particular relevance to the present analysis of hydropolitics and water security), thus creating a five-dimensional prism.

Two integral factors in international security studies beside the multiple sectors are the levels and units of analysis. In International Relations, a common distinction is the one made between the international systems, international subsystems, units, subunits, and individuals. Buzan and Wæver (2003) distinguish the regional from the global level and argue that in the post-Cold War security order so-called 'regional security complexes' have become more determining in terms of international security, which leads them to advocate a regional approach to global security. A security complex is, then, defined as "a set of units whose processes of securitization, desecuritization, or both, are so interlinked that their security

problems cannot reasonably be analyzed or resolved apart from one another” (Buzan et al. 1998: 201). Security complexes can be subdivided into homogeneous complexes that are concentrated within specific sectors composed of similar units, and into heterogeneous complexes that transcend different sectors and involve various types of units (ibid.: 16). The units of analysis, on the other hand, are the factors involved in a securitization process. These are the referent objects, i.e. the issues at stake that are (claimed to be) threatened and need to be protected; the securitizing actors who perform the securitizing move; and the functional actors that are the recipients of the securitization act (ibid.: 35-6).

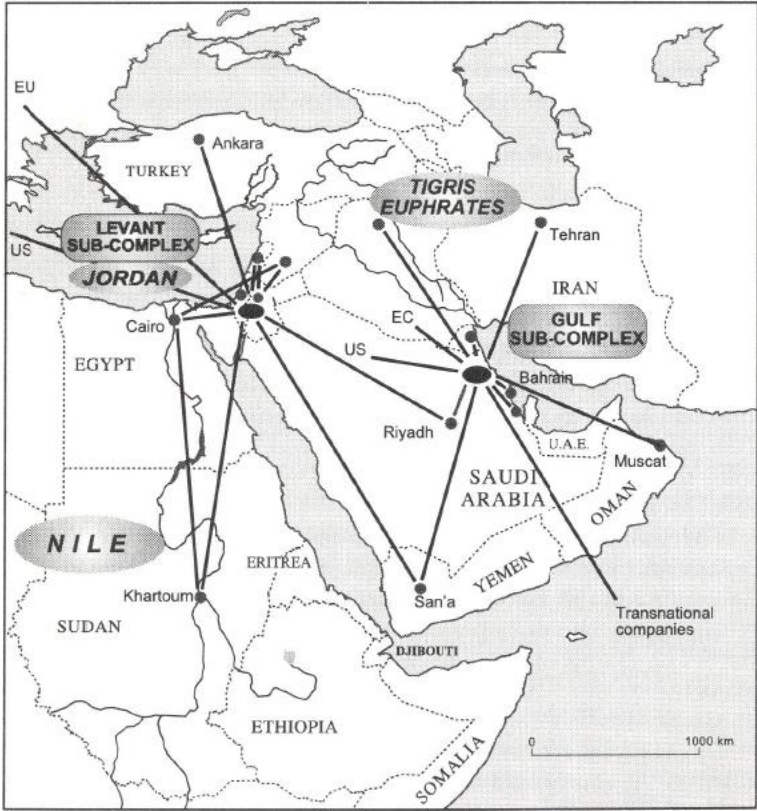
The process of securitization is characterized by taking an issue beyond the realm of established rules and hence framing it as above politics, or as an existential threat that is to be countered with emergency measures (Buzan et al. 1998: 21-4). Security politics can thus be thought of as opposed to normal politics. In the context of hydropolitics, it may be useful to think of securitization as the political process of resource re-allocation (Allan 2001: 244). Securitization may also serve as a deliberate strategy by policymakers and political activists in order to bring attention to water and other environmental issues that might otherwise go unnoticed, which underlines the inherently communicative function of the process (Katz 2011). While there has been a securitization of water and the environment in certain contexts, water has thus far rarely been fully securitized, which is, as Turton reminds us, a positive finding insofar as “full securitization is the result of failure to deal with the issues in the normal political framework” (2001: 8). Security dynamics may nonetheless be at play in politically charged environments.

The potential usefulness of security complexes for the analysis of rather complex and intertwined transboundary hydro-relations becomes thus apparent and the concept can be fruitfully applied to contexts of international water interaction. In extension, a hydropolitical security complex can be more specifically defined as “those states that are geographically part



‘owners’ and technical ‘users’ of rivers and further, as a consequence, consider the rivers [to be] a major national security issue” (Schulz 1995, cited in Turton 2001: 8). It can, moreover, be viewed as a component of a heterogeneous – that is, multi-sectoral – regional security complex (ibid.: 19). Those complexes constitute complex hydropolitical matrices of politics, social interaction, negotiation, and compromise (Zeitoun 2008: 19). They differ from traditional security complexes in that they are organized to address conflict between the riparians within a hydrological basin rather than to balance the power of external actors or adversarial security alliances, and can increase both the benefits of cooperation and the costs of conflict for its constituent parts (Kehl 2011: 219-20).

**Figure 1** The security sub-complexes of the MENA region and the regional interactions over water



Adapted from Allan (2001: 246)

The international subsystem relevant to our research question is the Middle Eastern regional security complex, which, as Buzan and Wæver (2003) argue, comprises three sub-complexes: the Levant<sup>2</sup>, the Gulf, and, less significantly, the Maghreb sub-complex. However, as becomes evident from figure 1, the hydropolitical relational nodes in the Middle East and North Africa (MENA) that Allan (2001) identifies do not necessarily coincide with Buzan and Wæver's regional security sub-complex patterns (the Nile, Jordan, and Tigris-Euphrates basin complexes vs. the Levant and Gulf sub-complexes). The exception to this is the Jordan Basin and the Levant sub-complex. The former largely corresponds to the latter, yet must, for the purposes of this study, exclude Egypt, as it is not an integral part of the transboundary river basin with its tributaries and groundwater aquifers which forms the basis of our examination. The units of analysis are thus the riparian political entities Israel, the occupied Palestinian territories (the Gaza Strip and the West Bank), and Jordan, and to a lesser extent Lebanon and Syria. The respective subunits are the various river-basin organizations (RBOs), non-governmental organizations (NGOs), government agencies, agricultural lobbies, and civil society actors, to name but the most obvious agents that exist within the units.

However, Allan stresses that in the Levant, "the water issue is so minor in comparison with the other contentious and non-contentious factors that water has to be seen as non-pivotal" (2001: 246). The reason for this lack of an overt link between water security and state security in Israel-Palestine lies in the fact that water had been subordinate to more prominent issues during the peace negotiations in the 1990s (e.g. Palestinian statehood, the status of Jerusalem, Israeli settlements, territorial borders, and the return of refugees), as well as in the conflict-mitigating effects of 'virtual water'<sup>3</sup> (Allan 2001: 247-9). This assessment of the

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<sup>2</sup> The term 'Levant' designates the coastal region along the Eastern Mediterranean, encompassing the modern states of Israel, Jordan, Lebanon, Palestine, and Syria.

<sup>3</sup> 'Virtual water' is a concept originally developed by J.A. Allan that designates internationally traded and 'importable' water in the form of grain and food commodities with which water-scarce countries and regions may alleviate their domestic deficits (cf. Allan 2001, 2002).

realities of the Jordan Basin complex seems to contradict Turton (2001: 8), who maintains that the water issue is crucial enough to link the various national security concerns of the different states in the region. Let us keep in mind that security complexes are essentially characterized by the fact that their security problems cannot be analyzed or resolved apart from one another, which undoubtedly holds true for issues of water security in Israel and Palestine. From a conflict analytical perspective, it is essential to note that “(...) when a dispute over water resources is embedded in a larger political conflict, the former can neither be conceived of as a discrete conflict over a resource, nor be resolved as such” (Lowi 1993: 9). Water ownership may not lead to political conflict in the first place, yet a violent conflict will inevitably impact on water interaction. The two are hence intractably intertwined, to the degree that a water dispute may be perceived as a manifestation or microcosm of a higher political confrontation. Consequently, the resolution of the wider conflict must precede any solution to the contingent conflict and the establishment of genuine cooperation.

## **2.2 Hydro-hegemony**

Another useful theoretical approach to hydropolitics is the concept of hydro-hegemony that has been developed over the past decade by various researchers affiliated with the London Water Research Group. As HCT, hydro-hegemony also partially draws on insights and findings from security studies, as evidenced in the adoption of a spectrum of conflict intensity ranging from non-politicized through politicized to securitized to, ultimately, ‘violized’ (Zeitoun & Mirumachi 2008). It acknowledges the fact that conflict and cooperation are not mutually exclusive, but complementary. The term ‘conflict’, as used in this discussion, is not the synonym of ‘war’ or ‘armed conflict’, but refers to its sociological meaning, whereas ‘cooperation’ means the process of working together, regardless of the underlying motives

and characteristic qualities of this process (such as voluntariness). The two theoretical approaches may be eclectically combined, as a hydro-hegemon can be thought to be located within a hydropolitical complex; naturally, the power, influence, and leverage of the hydro-hegemon do not extend beyond the limits of the hydropolitical complex and the transboundary river basin, respectively.

Asymmetrical power relations and, more basically, the notion of power are integral to understanding hegemony. Power, however, as most key concepts in the social sciences and philosophy, is a broad term around which revolve myriad definitions and which appears in various shapes, entailing different epistemological consequences. In its most basic definition, power can be understood as the ability to influence the behavior of others with or without resistance. In his endeavor to establish a theory of hydro-hegemony, Zeitoun (2008) takes recourse to the three dimensions or faces of power identified by political theorist Steven Lukes: hard power, bargaining power, and ideational power. The former is comparatively easily measured in economic and military terms (also in geographic ones, as in a polity's relative riparian position), while the two latter cannot be grasped empirically. They qualify both as types of 'soft power', i.e. as "the ability to get what you want through attraction rather than coercion or payments" (Nye 2004: x), to employ the term popularized by Joseph Nye and now widely used in academia and politics. In a simplified way, one could say that hard power is material and based on force, whereas soft power is immaterial and rests on persuasion (Zeitoun et al. 2011: 161). As will shortly be shown, "[t]he '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" (ibid.: 159). It is noteworthy that the riparian position of a political entity is not the determinant feature in a transboundary water interaction. Warner (2004: 13) summarizes the interplay between positionality and power succinctly when he writes that

upstreamers use water to get more power, whereas downstreamers use power to get more water.

Bargaining (or discursive) power depends on words, whereas ideational power exists in the abstract realm of ideas and perceptions. Bargaining power must be understood in relational terms and involves strategies aimed at worsening the opponent's alternatives and affecting mutual perceptions, thus ultimately altering the parties' bargaining positions and the structure of interaction (Daoudy 2009: 365). Ideational power, or the diffusion of ideas and values, is arguably the most effective form of power as it works in such subtle ways that those under its influence are usually not even aware of its presence. An actor that exerts ideational power manages to make others perceive issues in his or her preferred way and to make them want to take the same actions as him- or herself in order to tackle them. What is important to understand is that an actor superior in any one of those dimensions does not necessarily have to be so in the other two; in reality, the weaker party in a relationship may be capable of leveling out power differentials in the sphere of hard power by the prudent wielding of bargaining power, e.g. through issue-linkage. This is particularly evident in hydropolitics, as water is not only subordinated to the wider political context, but frequently (and deliberately) linked with other issues. An often cited example for bargaining and issue-linkage in hydropolitical contexts is the negotiations that led to the peace agreement between Israel and Jordan in 1994, in the course of which Jordan accepted less favorable conditions regarding the use and control of water in order to get concessions from Israel on more pressing security and territorial issues (e.g. Allan 2002). The prudent use of ambiguity in negotiating the terms of a water agreement may also be argued to be an exercise of bargaining power (cf. Fischhendler 2008). In conclusion, it is the ability to combine the various forms of power that may be the most salient feature of power and hegemonic control (Zeitoun 2008: 29).

In a next step, it is necessary to elucidate the concept of hegemony. Etymologically, the term ‘hegemony’ derives from the Greek word *hegeisthai*, ‘to lead’, and can consequently be translated as ‘leadership’. Given the broad sense of this expression, it is important to specify its meaning in this paper. Zeitoun and Warner (2006: 438) stress the difference between dominance and hegemony, which are often used interchangeably in common parlance; while the former is leadership bolstered by coercion (and by extension hard power), hegemony is leadership rooted in authority and legitimacy, from which becomes apparent why the analysis of soft power merits such particular attention in hegemonic contexts. Applied to transboundary river basins, hydro-hegemony is, simply put, “hegemony at the river basin level, achieved through water resource control strategies such as resource capture, integration and containment. The strategies are executed through an array of tactics (...) that are enabled by the exploitation of existing power asymmetries within a weak international institutional context” (Zeitoun & Warner 2006: 435).

An essential feature of hegemony is the formal equality that reigns between the hegemon and the non-hegemon, a condition that was first achieved in the Jordan River basin between Israel and the Palestinians with the Oslo Accords in the 1990s. It is worth noting that the equality is by definition ‘formal’ and that asymmetries of power persist beneath the surface. Generally speaking, cooperation in international river basins is advocated or imposed by, hence ultimately contingent upon, the hegemonic power, as Lowi (1993) notes. However, one must not make the mistake to think that a hegemonic relation is inevitably negative and that a hegemon always acts detrimentally to the interests of the weaker parties. Depending on the nature of the hydropolitical relations, a hegemon may well be considered a ‘plus-sum’ or ‘benign’ hegemon, as South Africa is in the Southern African hydropolitical complex (Turton & Funke 2008).

An integral act in hegemonic relations is compliance, and so-called ‘compliance-producing mechanisms’ consequently merit our attention. Zeitoun (2008: 31-3) identifies four such mechanisms, which he links to the three dimensions of power: these can be coercion (hard power), utilitarianism or normative agreement (bargaining power), or ideological hegemony (ideational power). Concomitant to the dimensions of power, the compliance-producing mechanisms increase their leverage on a hypothesized spectrum of efficiency the more they move into the realm of ideas. In hegemonic and thus non-coercive contexts, compliance can be achieved through either resignation or consent. This assessment can be conceptually linked to the distinction in the exercise of soft power for either distributive or integrative ends that Zeitoun and his colleagues make. This distinction manifests itself in the fact that “[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” (Zeitoun et al. 2011: 162). To be sure, distributive and integrative powers are not mutually exclusive, but can be and are combined in order to advance an actor’s vested interests (which is typically the hegemon’s prerogative), such as by combining integrative means towards a distributive end, as in a compromise (ibid.: 168). It is worth stressing that once a hegemon ‘allows’ an integrative discursive process to set in and unfold, the non-hegemon obtains the opportunity of shaping the outcome.

In accordance with Keohane and Nye (2012), who theorize the increasing interdependence of the contemporary world and what this entails for the use of power, Zeitoun and his colleagues find that hard power (in the form of violence) may not be the most cost-effective or attractive means of achieving one’s objectives, but that this is rather done through “(...) a constant framing and reframing of problems and attempts to influence actors’ perceptions of the problem, of the situation, and of each other (...)” (Zeitoun et al. 2011: 161). It is notably

the integrative exercise of soft power which may serve to unilaterally frame issues (e.g., as non-issues), the portrayal of which is normally not questioned by the non-hegemonic party. An indicator of hegemonic influence at work is the perception of the 'existing order of things' as the 'natural order of things', i.e. the internalization of a given asymmetrical power structure on the part of the non-hegemon. From this follows the emphasis that is laid in much of the theoretical debate on the construction of knowledge and the sanctioning of discourses. Particularly in a domain that is as fundamentally characterized by risks and uncertainties as the environment, the policy implications and recommendations of (so-called 'post-normal') science are anything but clear, but ambiguous due to the incomplete information and knowledge on which it relies under these particular circumstances. This greatly impacts on the social construction of knowledge and reality. Moreover, uncertainty is not only a substantial factor with respect to the natural and biophysical environment, but also regarding the (future) political environment and the commitment of other parties to environmental protection, the considerations of which give rise to what Fischhendler and his colleagues (2011) call 'the politics of unilateral environmentalism' on the part of Israel. This unilateral environmentalism, based on the unilateral and exclusive framing of issues, is clearly exacerbated by the existence of a political conflict.

Many experts agree that the dominant discourse about water management and allocation in hegemonic contexts is a sanctioned discourse, i.e. "a normative delimitation separating the types of discourse perceived to be politically acceptable from those that are deemed politically unacceptable at a specific point in time" (Feitelson 2002: 298). The prerogative of interpretation and of setting the agenda naturally lies with the river-basin hegemon. The conduct of a sanctioned discourse may include the deliberate manipulation of the general perception and awareness of the water status and the selective presentation of evidence that supports the hegemon's own position. This affirms the assumption that power and the



securing of compliance are essential features of the politics of natural resources in general and of water conflicts in particular (cf. Allan 2001; Zeitoun 2008). The discourse varies with the context and the receiving audience (e.g. international donors, foreign governments, or environmental organizations), while at the same time granting the discursive hegemon the ability to suppress or ignore the discourse of the 'Other'. This point will be returned to in the analytical part of this thesis.

### **2.3 The Transboundary Waters Interaction Nexus (TWINS) matrix**

What does this entail for the analysis of the conflict and cooperation potential of water in the Israeli-Palestinian conflict? As mentioned in the introduction, there are a growing number of voices in academia that question the accuracy of the antagonism between (water) conflict and cooperation and that prefer to speak of (transboundary water) interaction instead, which takes the simultaneous existence or, rather, persistence of the two phenomena into account and which is hence argued to more adequately capture the reality of hydropolitical relations and dynamics in transboundary river basins and hegemonic political contexts (cf. Zeitoun & Mirumachi 2008; Zawahri & Gerlak 2009). From the political nature of the concept of interaction follows the centrality of power in its analysis. This understanding finds its expression in the premise that 'a treaty does not cooperation make' and in the rejection of international agreements or river-basin organizations as reliable indicators of cooperation. Those arrangements may purportedly be about human or ecological security, but in reality conceal national interests and perpetuate an inequitable and unsustainable order. This reflects, in other words, the conventional wisdom that deeds have more substance than words. A relation between two or more riparians may on the surface look like cooperation or collaboration, but in fact conceal the underlying tensions and inequalities between the actors,

or misrepresent “domination dressed up as cooperation”, as Selby (2003a) refers to the Israeli-Palestinian hydro-relations post-Oslo.

The concept of transboundary water interaction also challenges the common recourse to conflict-cooperation continua which locate a relation or an event on a spectrum according to its intensity and subjective (positive or negative) value. Zeitoun and Mirumachi (2008: 301-3) maintain that this method tends to oversimplify complex and dynamic relations and that it obscures the multiple political dimensions of interaction. Moreover, they argue that such unidimensional prisms would bolster the paradigmatic view that (any kind of) conflict is essentially bad – and hence unfavorable –, whereas cooperation (regardless of its respective qualities) is always good – and hence favorable. Indeed, tensions may lead to the reduction or resolution of conflict, provided the confrontation is productive in nature, while aspects of cooperation may reinforce antagonism – the political process is the key to determining the quality of interaction. The following table (table 1) summarizes some of the conceivable types of interaction and their potential driving forces.

**Table 1** Types and faces of transboundary water interaction

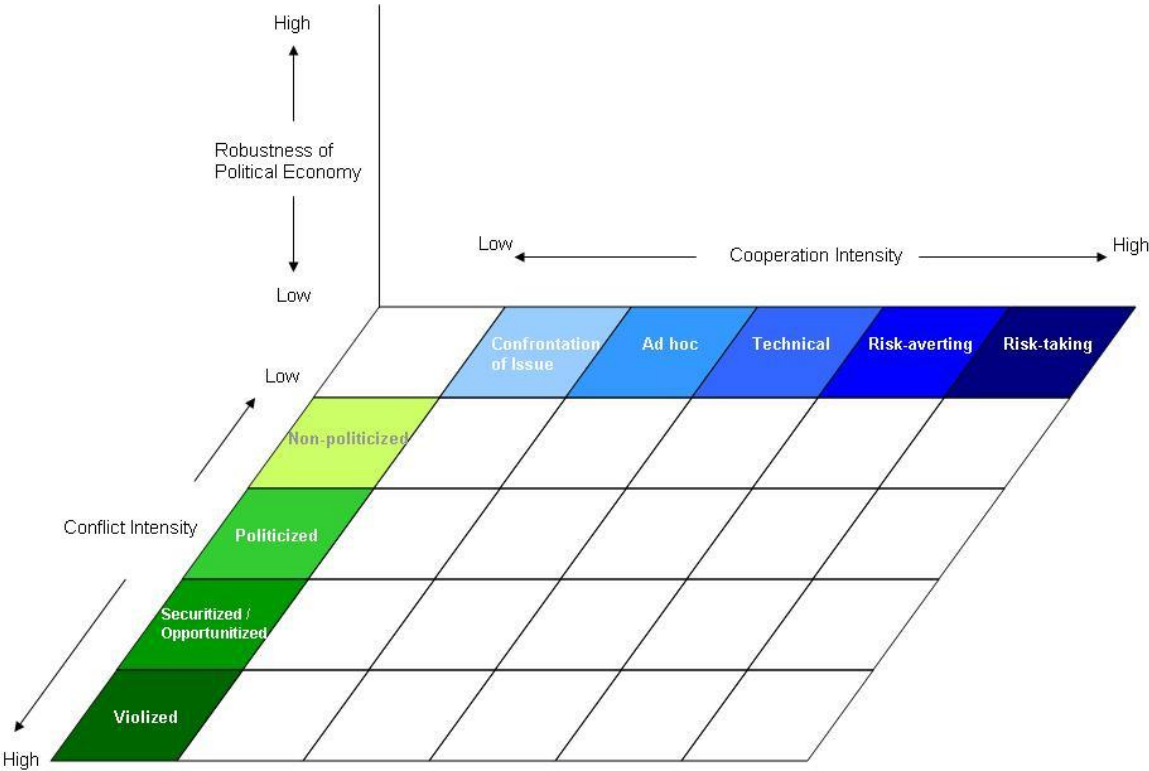
<b>Characterization of interaction nexus (TWINS)</b>	<b>Types of interaction</b>	<b>Examples of interaction</b>	<b>Potential driving forces</b>
Low conflict – High cooperation	<b>[positive interaction]</b> Cooperation on equal terms; Cooperation across a broad range of issues; Tensions reduced through deliberative processes	Putting in place and exercising principles (i.e. equitable use, no harm); creation of transboundary regimes; negotiation of a treaty based on IWM; conclusion of an effective treaty (Kistin)	Benefit sharing / expanding the pie  Reduction of environmental uncertainty
Low conflict – Medium cooperation	<b>[neutral interaction]</b> Narrow cooperation (cooperation on select issues); Token cooperation; Mild verbal expressions of conflict	Joint pollution management; joint infrastructure; benefit-sharing based on agreements; creation of RBOs	Economic / development goals  Issue linkage
Low conflict – Low cooperation	<b>[neutral interaction]</b> Minimal or no interaction; Ad-hoc cooperation; Self-interested cooperation; Tactical functional cooperation; Unstable cooperation	Minor information exchange; technical commissions or meetings	Mutual distrust  Improvement of international reputation  Sharing of resources
Medium/High conflict – Low cooperation	<b>[negative interaction]</b> Securitized conflict; Coercive cooperation; Dominative cooperation; Violent conflict	Contained conflict; negotiation of treaties not based on IWL; resource capture; unilateral environmentalism (Fischhendler)	Changes in power symmetry  Control of resources

Adapted from Zeitoun & Mirumachi (2008: 310)

As has been demonstrated in the enunciation of hydropolitical complex theory, elements of security theory can be fruitfully integrated into the analysis of hydro-relations. In order to overcome the shortcomings of unidimensional frameworks and to better grasp the ‘dual nature of interaction’, Mirumachi (Mirumachi & Allan 2007; Mirumachi & Warner 2008) designs a

two-dimensional matrix labeled ‘Transboundary Waters Interaction Nexus’ (TWINS), which allows rendering visible the trajectory of bilateral hydropolitical relations over time. This conceptualization has the merit of being capable of taking into account, for instance, intuitively contradictory situations where high conflict and high cooperation coexist.

**Figure 2** The Transboundary Waters Interaction Nexus (TWINS)



Adapted from Mirumachi & Allan (2007)

The above figure (figure 2) is a conceptualization of Mirumachi’s TWINS matrix. The cooperative (x) scale in the matrix represents the cooperation intensity and ranges from low to high. The five levels or stages on this axis include the confrontation of an issue, ad hoc and technical cooperation, as well as risk-averting and risk-taking actions, the most cooperative

forms of voluntary interaction between two political parties. The conflictual (y) scale draws on the process of securitization conceptualized by Buzan and his colleagues (1998) and ranges from non-politicized, politicized, securitized or opportunitized to ‘violized’, thus representing a gradual degradation of relations. In the analytical chapter of this paper (section 4.1), the trajectory of Israeli-Palestinian interactions over transboundary water resources during the 20<sup>th</sup> century will be accordingly visualized and analyzed.

If a study asserts to not only be descriptive-analytical, but also normative-prescriptive in the sense that it attempts to formulate policy recommendations, an obvious question that arises with regard to transboundary water interaction in Israel-Palestine is the one of what drives genuine cooperation and how water may be reasonably and equitably shared among the riparians. Table 1 lists several such potential driving forces. Lowi (1993: 11), for her part, identifies resource need (dependence) and relative power (resources) as the two main drivers of cooperation and regime-creation. Zeitoun and Mirumachi (2008) distinguish between ‘in-basin’ and ‘out-of-basin’ drivers of cooperation to this end. The most effective incentive for cooperation is arguably mutual benefits. It is self-evidently imperative to create awareness for the greater gains to be reaped from collaboration than from competition among the parties to a conflict. This may be achieved through the reduction of the notoriously high uncertainties and risks that are inherent to environmental issues, which may positively impact on economic and environmental interests. Issue-linkage (Daoudy 2009) and third-party involvement (Kehl 2011) may alleviate the power asymmetry between unequal actors and boost cooperation, in which case the impetus for collaboration comes from beyond the river basin. Civil society can also play a decisive role in moving from superficial towards profound cooperation.

The shift of focus from questions of water quantity to considerations of water quality has additional implications for the likeliness of cooperation. De Stefano and her colleagues conclude that “water quantity diminished in overall significance [over the past decades] while

joint management and infrastructure/development appear to have increased in prevalence at the same time” (2010: 881). This finding corresponds to the general view of an operational shift from sharing water towards sharing its benefits and the consequently increased focus on ‘benefit-sharing’ approaches in recent years (Sadoff & Grey 2002; Phillips et al. 2006; Zeitoun 2008). To conclude, it is worth emphasizing that effective cooperation is based on riparian compliance, goals, interests, and problem-solving rather than superficial cooperation in the form of treaties and RBOs (Zeitoun et al. 2011: 312).

## **2.4 Chapter conclusion**

Hydropolitical complex theory and hydro-hegemony are two separate theoretical approaches to transnational water conflict and cooperation that may not necessarily be integrated into a single, unitary interpretative framework, but which do complement each other and may be fruitfully employed to illuminate different aspects of the research question and hypotheses upon which this thesis is based. This eclectic approach is deemed methodologically adequate and epistemologically tenable in a research area that is so axiomatically characterized by interdisciplinarity.

Hydropolitical complex theory may be useful in explaining the causes of conflicts over water and their intensities. Let us recall the first hypothesis here, which states that control over the transboundary water resources in the Jordan River basin is a main reason for Israel’s sustained occupation of the West Bank and hence exacerbates the intractability of the conflict. Securitization theory and the concept of security complexes present themselves for conflict analysis in this context. While water may not have figured as a main incentive to occupy the Palestinian territories, along with the Sinai Peninsula and the Golan Heights, in the course of the Six-Day War (which arguably stemmed from strategic and territorial considerations),

conflict over water has since become significantly more intense and the resource itself ever more securitized. The Jordan Basin hydropolitical complex can be viewed as one of several heterogeneous security sub-complexes in the Middle East, which, it must be noted, may not be the most salient such complex, but which nonetheless possesses some analytical merit in examining the link of water with national and human security and the role it plays in maintaining the status quo.

Hydro-hegemony may be more apt to unveil the power dynamics at play in bi- and multilateral interactions over water resources. It has thus immediate implications for the second hypothesis, which argues that water is too important a resource to threaten its availability through an armed conflict, resulting in a however tenuous peace or cooperation between the opponents. The understanding of conflict and cooperation as coexisting rather than opposing social phenomena is immensely valuable in the Israeli-Palestinian context, which is characterized by a protracted yet low-intensity conflict which only sporadically escalates into full-scale war and where, moreover, superficial cooperation (and covert conflict) has verifiably persisted at least since the early 1990s. While cooperation occurs on a functional level, power asymmetry and relative inequality are structurally ingrained into the (water governance) institutions that were established with the Oslo II Accords<sup>4</sup>. In other words, the institutional framework contains the sources of ongoing tensions.

This two-tier approach manages to engage the two different dimensions of our research question and to incorporate elements of both conflict analysis and resolution. The following sections will outline the physical and political realities of the Jordan River basin and, in the process, fathom the extent to which water is securitized and perpetuates the conflict; in a next step, this methodology will enable us to explore the hegemonic character of Israeli-Palestinian

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<sup>4</sup> The Oslo II Accord is officially called the 'Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip' and is listed under this name in the bibliography, yet the former expression will be used for reasons of brevity in this paper.

hydro-relations and the possibilities and prospects that hegemonic settings offer for conflict resolution.



### **3. Transboundary water resources in Israel and Palestine**

The Middle East is the first region in the world that effectively ran out of water and has not been able to meet its freshwater demands domestically since the early 1970s (Allan 2002). The Levant has been particularly severely hit. The reasons for this are a combination of population growth, economic development, and climate change, all of which came to bear on already limited water resources. However, it is essential to understand that this extreme water scarcity could and can be technologically and economically mitigated by instruments such as ‘virtual water’, wastewater reuse, and desalination. The efficient and successful implementation of these measures depends on the social adaptive capacity or, to borrow Homer-Dixon’s terminology, ‘ingenuity’ of a political economy, which is very unevenly distributed in the Jordan River basin. Israel, as an advanced post-industrial economy, has naturally higher capabilities to counter environmental degradation than the middle-income economy of Jordan or the less affluent Palestinian territories. This paper is based on the premise that environmental and resource scarcity is not exclusively a technical or operational issue, but fundamentally a political question. It is not primarily water engineers and hydrogeologists who can solve water crises, but policy- and lawmakers who directly attenuate or exacerbate them with their decisions and consequent actions.

#### **3.1 An unequally distributed resource**

It is important to note in the discussion of regional water resources the difference between water availability and water allocation and the fact that the distribution of transboundary water flows between Israel and Palestine (as well as Jordan) is starkly asymmetrical. This asymmetry cannot be exclusively attributed to hydrogeological factors, as, for instance, the West Bank possesses abundant natural groundwater supplies. Rather, the reasons for the

misdistribution must be sought in the asymmetrical power relations between the two entities. The exact ratio of Israeli to Palestinian water use is difficult to discern, but ranges from 6:1 for overall water use (domestic, agricultural, and industrial) to 9:1 for agricultural water use in favor of Israel; the ratio is even more grossly distorted if one takes the importance of agriculture to both the Israeli and the Palestinian economies into account: since Israel is an advanced high-tech economy in which the primary sector makes but a minor contribution to the overall economic performance, while the Palestinian economy continues to rely heavily on agriculture and faces severe structural development constraints, the ratio of agricultural dependence is approximately 1:25 in favor (or disfavor) of Palestine (Zeitoun 2008: 58).

This unequal resource distribution does attract international attention. A recent French parliament report (Glavany 2011) on the geopolitics of water states that some 450 000 Israeli settlers in the West Bank and East Jerusalem use more water than its 2.3 million Palestinian inhabitants. Moreover, in order to justify the use of the term ‘apartheid’ in the context of the Israeli occupation of the West Bank, the report stresses that in times of drought, priority in water allocation is given to the settlers (in contravention of international law); the separation wall being constructed by Israel allows it to control access to underground water sources and to direct the flows of water westward; improvised Palestinian wells are systematically destroyed by the Israeli army; and the development of (water) infrastructure in the West Bank is systematically being obstructed by its division into three administrative zones<sup>5</sup> (the largest of which is under Israeli control) and fragmentation by strategically located settlements and roads that are reserved for Jewish settlers only (Glavany 2011: 130-2).

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<sup>5</sup> Under the Oslo II Accord, the West Bank was divided into three administrative and jurisdictional zones. Area A was placed under the full civil and security control of the newly created Palestinian Authority (PA); Area B was placed under PA civil administration, but subjected to joint Israeli-Palestinian security control; and Area C, which covers the Jordan Valley, Jewish settlements, and their surrounding areas (constituting approximately 61 percent of West Bank territory) remained under full Israeli control (cf. COHRE 2008: 22-3).

This state of affairs has long been criticized by independent observers such as foreign governments and national and international human rights NGOs (e.g. COHRE 2008; Amnesty International 2009; B'Tselem 2011). Godlewski (2010) argues that water scarcity in Israel is a major obstruction to peace and speaks of the ‘damming’ of the peace process, given the fact that the Palestinians under occupation cannot freely dispose of their water resources, but are forced to use Israeli utility services for freshwater acquisitions. Consequently, the figures measuring the quantity, quality, and distribution of transboundary water resources are fiercely contested and constitute high stakes in the game of politics. This becomes particularly evident in the competing data of different government agencies, non-governmental organizations, and international institutions, which makes it difficult to get a clear and unbiased picture of the state of water in Israel and Palestine.

### **3.1.1 Hydrological overview**

Ecosystems are distinguished by a very high degree of complexity in terms of both structure and function, and aquatic systems are no exception to this. The discussion of transboundary water resources revolves hence not only around surface water in international river basins, but has to include groundwater resources as well. Those have thus far been largely ignored in the academic debate due to their complicated hydrogeological nature, but are starting to receive more academic attention, as is evidenced by the surge of publications on groundwater aquifers in recent years (e.g. Jarvis et al. 2005; Zeitoun et al. 2009; De Stefano & Lopez-Gunn 2012). This is of particular importance with regard to Israel and Palestine, where subterranean water supplies play a pivotal role. In fact, given the specific focus of this study on Israel and the occupied Palestinian territories, groundwater aquifers are at least of as much interest to our research question as the Jordan River and its tributaries per se, as they make up the major

source of water resources in the Jordan Basin (according to Allan (2001: 83), an estimated 60 percent of the overall water quantities in the Levant are subterranean).

Climatologically speaking, the region encompassing our study area is characterized by Mediterranean climate in the coastal areas and semi-arid climate further inland, with precipitations (on which the recharge of groundwater aquifers is contingent) amounting to as much as 600 mm per annum north of the Negev Desert. Historically, the Levant was part of the so-called 'Fertile Crescent', the crescent-shaped region of comparatively humid and fertile land in the Middle East that extends from present Gaza in the southwest to Kuwait in the southeast, and in which agriculture and civilization first flourished in the wake of the Neolithic Revolution. Water is more abundant here than in the rest of the region, particularly Arabia to the south, yet this abundance is only relative. Figure 3 illustrates the transboundary surface water and groundwater resources of Israel and Palestine, depicting both the Jordan River system and the four great aquifers that are shared between the two entities, namely the Coastal Aquifer, the Western Aquifer, the North-Eastern Aquifer, and the Eastern Aquifer (the latter three of which are collectively referred to as the Mountain Aquifer by some authors). This water system includes the Jordan River's tributaries, the Hasbani, the Banias, and the Dan Rivers, the former two originating in Lebanon and Syria (the Golan Heights), respectively. The Dan and Upper Jordan Rivers are entirely located within Israel, as is the Lake of Tiberias (also known as the Sea of Galilee). There are several wadis (ephemeral riverbeds) in the area and the Yarmouk River that feeds the Lower Jordan. It is the Lower Jordan River that flows from the Lake of Tiberias to the Dead Sea, thus forming the border between Israel and Palestine (the West Bank) and Jordan (the East Bank), that is a source of contention. The following table (table 2.1) illustrates the freshwater quantities in million cubic meters (MCM) available to the people in the Jordan River riparian states, as well as the distribution of the Jordan River water flows.

**Figure 3** Transboundary surface water and groundwater resources of Israel and Palestine



Adapted from Zeitoun, Messerschmid & Attili (2009)

**Table 2.1** Freshwater quantities of the Jordan River riparians

<b>Political entity</b>	<b>Quantity of freshwater (MCM/year)</b>	<b>Population (millions)<sup>6</sup></b>	<b>Per capita quantity of water (m<sup>3</sup>/year)<sup>7</sup></b>	<b>Water abstraction of Jordan River (%)<sup>8</sup></b>
West Bank	180	2.4	75	/
Gaza Strip	212.5	1.7	125	/
Jordan	1 260	6.3	200	25.76
Israel	1 728	7.2	240	58.33
Lebanon	5 040	4.2	1 200	0.38
Syria	32 850	21.9	1 500	12.12

Own work, based on the cross-referencing of several sources (see footnotes).

Two points stand out in the table above. First of all, the freshwater quantities in the Southern Levant are significantly smaller than those in the Northern part of the region. As a matter of fact, Lebanon and Syria are both relatively water-abundant. The picture is quite different for the Jordan River's lower riparians, with water stress being highest in the Palestinian territories. The second feature that strikes the observer's eye is the fact that the Palestinians have no access to the Jordan River and that, in fact, no water from that source is extracted for Palestinian benefit. This is a result of the occupation and has been formalized through the administrative division of the West Bank in 1995, which effectively cordoned off the river's Western bank. This finding is all the more problematic as the Palestinian economy used to rely heavily on this water source before the occupation commenced in 1967 (e.g. World Bank 2009). While the Jordan River may be the largest source of surface water in the region, subterranean water supplies have also traditionally been crucial in the sustenance of livelihoods in the Levant and have thus become politically contentious in the current conflict.

<sup>6</sup> UN (2009)

<sup>7</sup> World Bank (2009)

<sup>8</sup> PHG (2009)

The figures in table 2.2 below reveal that the resources of the transboundary groundwater aquifers were unequally distributed between Israel and the Palestinian Authority under the Oslo II water agreements. Note that the Coastal Aquifer, which constitutes the only source of fresh water in the Gaza Strip, was not included into the agreement and that not all subterranean water resources from the Eastern Aquifer have been allocated. As a consequence of the agreement, more than 80 percent of the West Bank’s freshwater resources remain under Israeli control to this day (Godlewski 2010: 153).

**Table 2.2** Allocation of the water resources of the three shared aquifers (in MCM)

<b>Aquifer</b>	<b>Estimated potential</b>	<b>Israeli share</b>	<b>Palestinian share</b>	<b>Total</b>	<b>Remainder</b>
<b>Western</b>	362	340	22	362	0
<b>North-Eastern</b>	145	103	42	145	0
<b>Eastern</b>	172	40	54	94	78
<b>Total</b>	679	483	118	601	78

According to Article 40 of the Oslo II Accord (1995)

Moreover, there are substantial differences between the two Palestinian entities. Messerschmid (2011) stresses the fact that the hydrologically not self-sustaining Gaza Strip is the complete opposite (in terms of water) of the West Bank, which is naturally well-endowed with water resources. While the Gaza Strip currently has a higher per capita amount of water than the West Bank, according to table 2.1, its general hydrological situation and prospects are much direr. Based on various population growth and climate change scenarios, Chenoweth (2011) predicts that in the lower Jordan Valley, only Israel and Jordan will maintain sufficient freshwater capacities by the year 2050, whereas the Palestinian territories will not; in fact, the West Bank would be able to achieve water security as well if the shared

water resources with Israel were reallocated and more equally shared (which, however, is subject to a political solution to the Israeli-Palestinian conflict), but the Gaza Strip will in no case remain self-sufficient.

As noted in the previous section, one has to be very cautious with regard to the data and prudent in their interpretation, as various institutions disseminate different figures, in some cases presumably for political reasons. Significant differences in the data cannot be attributed to statistical variability occurring over the two or more years of inquiry, but must be presumed to be the result of different basic data and differing methodologies. The World Bank figures of table 2.1 are frequently cited by various sources and can thus be considered as rather accurate and reliable. On the other hand, the Israel Water Authority (2009) states a higher per capita quantity of water in the West Bank and a lower one in Israel, which results in a smaller discrepancy between the two. Consequently, the discrimination of Palestinians in terms of water allocations does not seem as flagrant as in other reports. Nongovernmental organizations and international financial institutions, however, assume a much wider gap in actual water use: Israeli water consumption is stated to total 300 liters per capita per day (lpcd) (Amnesty International 2009), 320 lpcd (COHRE 2008), and 350 lpcd (PHG 2008), opposed to an average of 70 lpcd in the occupied Palestinian territories, although the World Bank (2009) estimates domestic water availability in the West Bank to amount to a mere 50 lpcd. Without accounting for the fact that certain Palestinian communities, such as Hebron or Bethlehem, face even greater water stress due to lower water supplies and uncertain servicing, the ratio between Israeli to Palestinian water usage ranges on average from 4:1 to 7:1. What remains uncontested, in any case, is the fact that water consumption in the Palestinian territories is significantly lower than in Israel or the Israeli settlements on Palestinian ground and notoriously falls below the supply threshold of 100 lpcd promoted by the World Health



Organization (cf. PHG 2009), despite the described relative abundance of water supplies in parts of the territories.

To obtain a wider regional picture, it is worth considering that water consumption also totals no more than 60 liters per capita per day in Jordan and that water experts demand that lower Jordan River riparians do not exceed 200 lpcd on average (Carnegie Endowment 2011), which has direct implications for the Israeli water sector. Similarly, the Israeli environmental scientist Hillel Shuval maintains that the Minimum Water Requirement (MWR), defined as the water “needed to maintain a reasonable level of social and economic life and to meet *vital human needs*” (2007: 3; original emphasis) in the Middle East is 125 cubic meters/person/year and should be granted to every individual living in the region regardless of national considerations, an idea to which we will return in the analytical part of this thesis.

### **3.1.2 Institutional overview**

As water access and allocation are as much driven by political and social factors as determined by hydrogeological ‘realities’, it is indispensable to submit the institutional, legal, and technical frameworks in place in the occupied Palestinian territories to comprehensive scrutiny. Attempts to use water in a constructive manner to achieve peace or cooperation between otherwise hostile riparians reach back to the immediate aftermath of the creation of the modern Middle East in the first half of the 20<sup>th</sup> century, as most prominently exemplified by the American-led Jordan Valley Unified Water Plan, or Johnston Mission, lasting from 1953 through 1955. It was based on the functionalist idea that cooperation in one domain, namely water governance, would have spill-over effects on other areas and hence promote cooperation between the various riparians in the long term (cf. Lowi 1993). However, this ambitious project failed as the political animosities between Israel and its Arab neighbors

proved to be too strong to be overcome by technical cooperation, and it is now commonly held that any resolution of the water conflict is contingent on a transformation of the wider political context.

Many of the institutions now in operation to administer the water resources in the West Bank and the Gaza Strip were created as a result of the Oslo Accords (especially Article 40 of the Oslo II Agreement) and include notably the Palestinian Water Authority (PWA) and the Joint Water Committee (JWC). Before the signing of these agreements, the two Palestinian entities had been under the direct control of Israel for some thirty years. It contributes to our understanding of local water management and the current institutional landscape to consider the turbulent history of the Southern Levant in the 20<sup>th</sup> century, which held myriad obstacles to efficient regional, let alone basin-wide management. While it is crucial to refer to the historical conditions that have shaped current arrangements – such as European imperialism, successive nationalist wars and occupations, and unresolved hostilities –, this paper is interested in the current state of affairs and hence adopts a synchronic rather than diachronic analysis.

Today's institutional and legal frameworks were formally drafted in 1995, albeit it is argued that the achievements of the Oslo peace process were more cosmetic than substantial and that the conventional 'breakthrough to breakdown' narrative of the negotiations does not apply to Israeli-Palestinian water relations (Selby 2003a: 121-3). Selby (2003a, b) maintains that there was a continuity of cooperation between Israeli and Palestinian water managers and technicians that preceded (and outlasted) the Oslo Accords and that was relatively little affected by the agreements in terms of material, as opposed to discursive, change. According to this argumentation, the Oslo II water accords merely served to formalize, and thereby legitimate, the status quo. The two material changes that ensued from the signing of the Oslo water agreements were a massive influx of international development aid (by way of which

Israel managed to externalize some of the costs of its military occupation) and the creation of new institutions and extra layers of bureaucracy, which, however, had few novel or substantive powers. The agreements covered the management of resources, systems, and supplies, the monitoring of water resources, and the development of new supplies (Selby 2003b), yet not in a holistic manner.

Regardless of the political intricacies, the Palestinian Water Authority (PWA) is now formally the primary institution in charge of water supply and sanitation in the West Bank and the Gaza Strip. The West Bank Water Department, which had been responsible for providing water services to West Bank residents prior to the Israeli occupation and has been subordinated to the PWA, continues its operations on the ground under this newly established Palestinian water institution. However, the PWA faces severe exogenous and indigenous constraints, i.e. constraints stemming from the Oslo agreements and the ongoing occupation, as well as from Palestinian institutional weaknesses; there are also external limitations that apply to development partners and foreign donors (World Bank 2009). Its institutional and operational deficiencies are widely recognized and proposals for reform are numerous, yet subordinate to wider political interests and maneuvers. The PWA is, in essence, a donor construct and, by virtue of being entrusted with the supervision and implementation of internationally funded projects, it remains donor-dependent.

The Joint Water Committee (JWC), for its part, was set up as a ‘joint’ water resource governance institution in 1995, yet does not function in this sense “because of fundamental asymmetries – of power, of capacity, of information, of interests – that prevent the development of a consensual approach to resolving water management conflicts” (World Bank 2009: ix). A look at the wording of the Oslo II Accord quickly reveals the then ‘legalized’ and ‘legitimized’ asymmetries between the two parties. The then newly established JWC grants Israel by definition the maintenance of far-reaching control rights in

Palestinian water affairs, with no equivalent on the Palestinian side, which reduces the treaty's air of mutuality to a mere rhetoric level. As this body requires consensus in decision-making processes, Israel effectively wields veto power with regard to plans and projects carried out in the occupied territories (e.g. Jägerskog 2007). Let us recall that this kind of formal equality, which veils the realities of asymmetric power and allows the stronger party to pursue its vested interests, is characteristic of hegemonic relations. It is thus that Zeitoun (2008: 64) refers to the JWC as the main discursive 'battleground' of the Israeli-Palestinian water conflict, as it constitutes an integrative framework within which Palestinian professionals can at least hypothetically counter Israeli positions and attempt to shape the outcome of interactions.

The Oslo Accords did not only create the water governance institutions now in operation in the occupied territories, but also set out the legal framework that was supposed to manage the transboundary water resources between Israel and the Palestinian Authority for their mutual benefit. An important example of a legally binding allocation of water is the quota of groundwater shares depicted in table 2.2. It is imperative to understand, however, that those agreements were only meant to be temporary in nature and were initially limited to a five-year interim period, after which they were to be revised as part of final status negotiations; yet they are still in place 17 years on, as the peace process effectively broke down in the year 2000 and could not be revived since. The interim nature of the agreements merits particular emphasis, as this has important and immediate consequences for the management of water resources. The water allocations were fixed and have not been changed since, albeit they did include room for considerations of expected future demands; there is reason to assume that the quantities would have been modified in final status negotiations, yet they have become permanent. Permanently fixed quantities in international freshwater treaties have often proved problematic because of the particular nature of the resource that they seek to control, and

models of adaptive and flexible law have a decisive advantage over traditional approaches in this respect, as they allow for taking into account hydrological and climatological changes in water quantity and quality and, more importantly, for adjusting to them correspondingly.

In addition to the institutional and legal spheres of transboundary water interaction, it is also worth considering the conflict-mitigating potential of technology. As mentioned in the introduction to this chapter, there are several technological and economic instruments to reduce water stress, the availability of which depends on a political economy's social adaptive capacity. The inevitable question that arises with regard to water conflicts is as to whether these tools are actually capable of contributing to the resolution and transformation of a conflict or, on the contrary, whether they merely contain it and hence obstruct its resolution in the long run. These considerations are justified in light of the stalled peace process and find expression in the statements of Israeli water professionals, according to which technologically achieved water independence may render arduous political negotiations unnecessary (Allan 2002: 269-70). Wastewater treatment is such a technology that can increase the overall availability of water. Another one is desalination, a process that has been hailed as a potential conflict-mitigation tool in recent years, yet which has (thus far) not lived up to expectations. In the relevant literature, there is generally substantial skepticism as to technical solutions to, or circumventions of, profound political problems (e.g. Messerschmid 2011). Virtual water, for its part, is what prevented the Middle East from running dry completely, yet had the negative side-effect of reducing the pressure on decision-makers to undertake comprehensive reforms and establish more reasonable and sustainable water consumption patterns in their respective states. There can be no doubt about the usefulness of technology, but one must not make the mistake to see it as a panacea to water scarcity or water-related conflict (cf. de Châtel 2007).

### **3.2 Chapter conclusion**

The hydrological and institutional overview of transboundary water resources and governance in the Jordan River basin substantiates the claim that immaterial (socio-political) factors contribute directly or indirectly to the prevalence of material (physical) scarcities. A social scientific study of this phenomenon must go beyond the mere assessment that ‘politics matters’ and must subject this finding to a more systematic and thorough analysis. In other words, it is necessary to examine the ways in which political actors frame issues and create specific realities, and the intentions that underlie these moves. It is necessary to determine whether water figures as a priority or strategic consideration on the Israeli security agenda and what this entails for the policies adopted towards the Palestinian Authority and the wider political conflict. In the following chapter, the securitizing dynamics and hegemonic dimensions of the transboundary water interaction in the Israeli-Palestinian context will be analyzed in greater detail.

#### **4. Securitizing dynamics and hegemonic power relations**

Based on the theoretical approaches outlined in the second chapter and the factual overview in the third chapter of this paper, the present section will attempt to synthesize the two parts into a coherent whole to arrive at a more comprehensive understanding of hydropolitics in Israel-Palestine. It was previously argued that water is not a causal factor in the wider Arab-Israeli conflict or in the narrower Israeli-Palestinian confrontation, but that it does play a discernible role in the sustained occupation of Arab territories by Israel. This assessment seems to be backed by the evidence presented so far. This paper now turns to the examination of the nexus between water and security in Israel-Palestine and the causes of the securitization of the resource in this setting. Several authors emphasize the existence and, more importantly, the prevalence of this link. Rouyer makes a strong case for this view and argues that “[f]rom the inception of statehood access to water resources became a major element in Israel’s concept of national security” (2000: 108). Water is thus argued to be at the center of political and strategic considerations in the Israeli political arena. The reasons for this are numerous. Repeatedly mentioned in the literature is the ideological component of Zionism in Israeli politics and the striving for national self-reliance that it entails, which can only be realized through secure water supplies that allow economic development and growth. Two explanatory models that will not be discussed at length here, but which nonetheless merit mention so as to differentiate our own approach, are those of ‘resource capture’ and the ‘hydraulic imperative’.

The term ‘resource capture’ can be defined as the response of powerful groups within a society to rising resource stress, which normally takes the form of attempts to shift the access to and distribution of the respective resource in their favor (Homer-Dixon 1999). Homer-Dixon notably argues that water is an explanatory variable in the Israeli occupation of the West Bank, as water shortage in Israel promotes actions that fit the above description (ibid.:

75-6). This assessment is shared by Rouyer (2000: 109), who notes that the idea of relinquishing partial or total control over the West Bank is considered to pose an actual threat to Israel's water security by the country's elites. There is reason to assume that in the past decade, during which no progress towards a negotiated settlement between the two antagonists was made, this perspective did not significantly change; on the contrary, the realities on the ground changed for the worse as growing populations and economies demand ever more and ever scarcer water supplies.

Another concept that continues to enjoy popularity in debates about water conflicts is the one of the 'hydraulic imperative'. As the name suggests, it presumes that there is a determinant power inherent to water that inevitably motivates or drives states to pursue territorial conquests in the quest for water resources. In fact, this idea has been specifically developed and employed with regard to the Arab-Israeli conflict, as a means of explaining certain military actions by the State of Israel in the Six-Day War and the Lebanon War, yet it has also been fiercely critiqued and repudiated as oversimplifying complex causal connections (Wolf 1995: 70-3; Nasr 2009). In view of the impossibility to establish a valid causal inference between water and conflict, it is important to understand that "water has been included in the dynamic of conflict mainly as an intervening variable, rather than as a catalyst itself" (Libiszewski 1995, cited in Dolatyar & Gray 2000: 113).

#### **4.1 A securitized resource in a complex political environment**

Securitization theory is a more adequate analytical tool as it allows scrutinizing water as such an intervening variable in the Israeli-Palestinian conflict and in the occupation of the West Bank. At this point, it is worth recalling that the Copenhagen School of security studies is premised, *inter alia*, on the assumption of a multi-sectoral nature of security. Following this



premise, it is difficult to claim the primacy of any one domain or issue over all others, as is done by reducing national security to water security. Water security is only one dimension that factors into a state's broader conception and perception of security; it may play a greater or lesser role, depending on the specific context, yet it cannot superimpose itself on other political, military, and strategic considerations. The crucial issues in the Israeli-Palestinian conflict are those whose resolution has been postponed until final status negotiations take place and concern borders, settlements, refugees, and the status of Jerusalem. Water rights are also listed among those issues, as is security more generally, yet they are of minor proportions in contrast to the Herculean task of finding a solution to the final territorial borders of a future Palestinian state and the contingent question of the Israeli settlements in the West Bank.

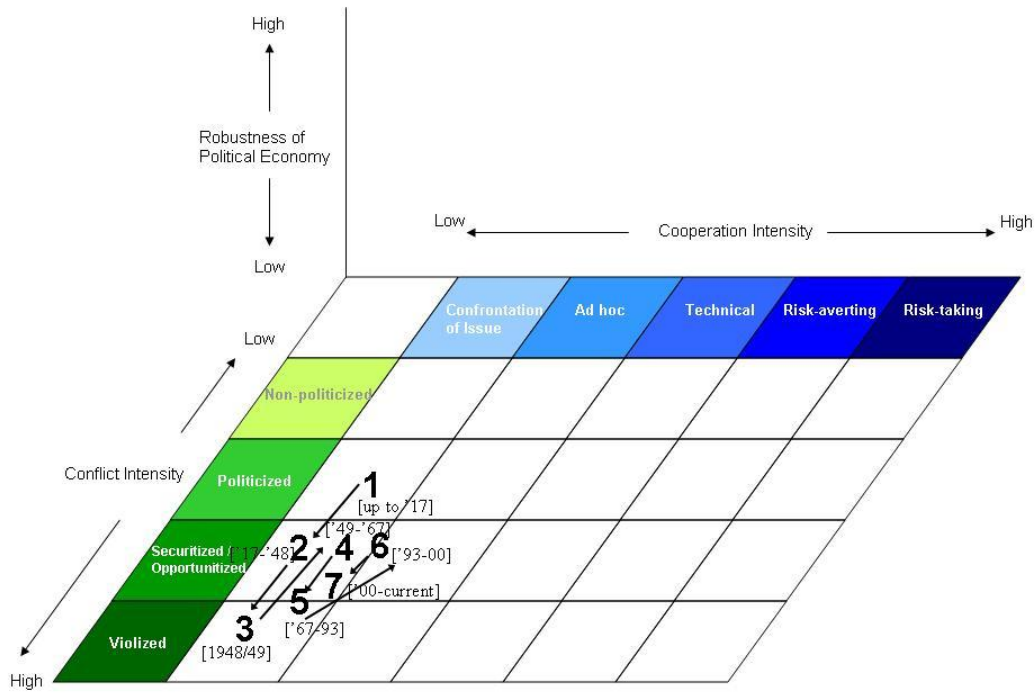
The theory of securitization conceptually defies any environmental determinism (which is what ideas of 'resource capture' and 'hydraulic imperatives' ultimately amount to), as it provides explanations for how an issue is consciously constructed and framed by political actors. Water is, in the terminology of Buzan and his colleagues, a referent object, which is subjected to a process of securitization that is usually initiated and sustained by powerful groups within a society, such as political leaders and economic elites. An important and influential securitizing actor in hydrogeopolitics within Israel is the agricultural lobby. Make no mistake: agriculture demands higher amounts of water than all other consumers (domestic and industrial) in virtually any Middle Eastern country. Yet in Israel, water resources are additionally normatively charged through the country's very founding ideology, Zionism. There are numerous accounts of the ways in which water is perceived and valued in Arabic and Islamic thought and the implications this has for water law in the Middle East (e.g. Allan 2001: 173-80; Bruch et al. 2007; de Châtel 2007), and it should come as no surprise that a scarce resource plays such a salient role in the cultures of arid and semi-arid regions. Zionism, however, is a modern ideology that was developed in Europe in the late 19<sup>th</sup> century. Zeitoun

(2008) points out that land and its cultivation, particularly in the form of agriculture, were central elements in the early Labor Zionist movement. The narrative that Jewish settlers found a desolate land upon their arrival in Palestine and consequently ‘made the desert bloom’ is a founding myth of the State of Israel and continues to shape perceptions of water and technology to this day. After all, water development was intimately linked to the state- and nation-building processes in Israel and the ‘hydraulic mission’ to develop and secure the country’s water supplies was an important preoccupation of politics in the first decades of Israel’s modern existence.

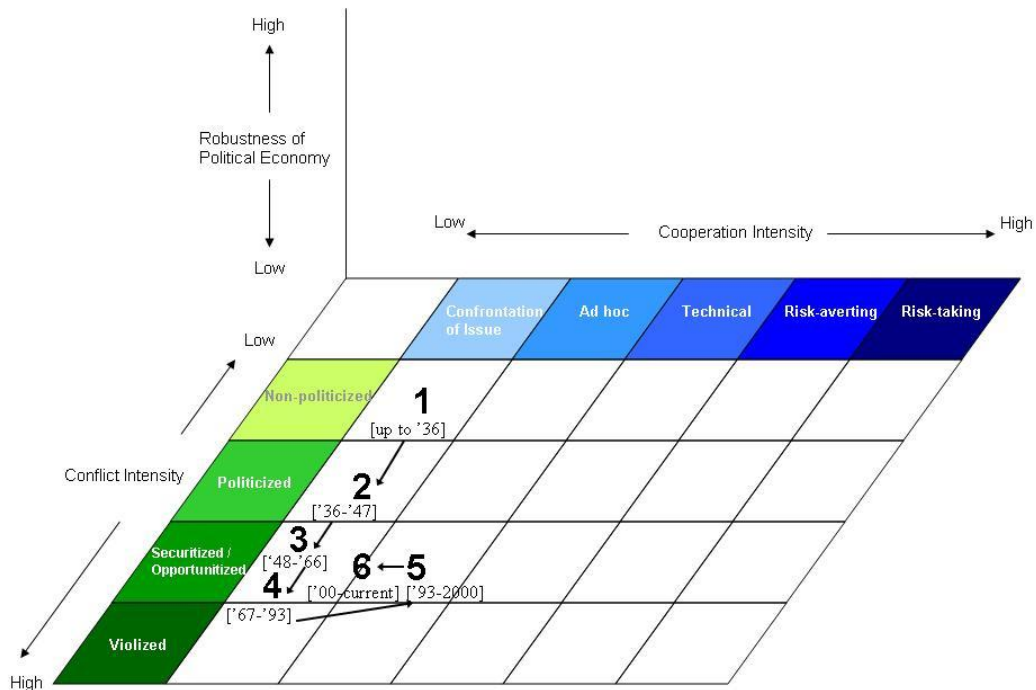
#### **4.1.1 Mapping transboundary water interaction and securitization processes**

It is useful in terms of understanding the current water conflict to put the process of securitization of water in Israel and Palestine into a wider historical context. To this end, we will apply the TWINS matrix of conflict and cooperation, which was outlined in section 2.3, to the Israeli-Palestinian context. The following figures (figures 4.1 and 4.2) are taken from Mirumachi and Allan (2007) and were designed by hydrogeologist Clemens Messerschmid. The trajectories that they present essentially coincide with the hydropolitical eras that Zeitoun (2008) identifies in the Jordan River basin in the 20<sup>th</sup> century. The history of the area is commonly divided into the time before and after the independence of the State of Israel in 1948, and most historical periodizations consequently identify a caesura in the years from 1947 through 1949. Zeitoun terms the pre-1948 period the ‘era of Zionist aspirations’. As becomes evident from the figures, water was early on politicized on both sides. While Messerschmid’s trajectorial visualization highlights the fact that Jewish immigrants and Arab locals perceived water in slightly different ways during the time of the British Mandate for Palestine (which preceded Israeli independence), the resource remained politically charged in

**Figure 4.1** Israeli perceptions of the relations with Palestine over shared aquifers



**Figure 4.2** Palestinian perceptions of the relations with Israel over shared aquifers



Adapted from Mirumachi & Allan (2007)

the period subsequent to the creation of Israel, which Zeitoun calls the ‘ideological era’ (1948-67). The next generally accepted caesura in Arab-Israeli relations was the Six-Day War in June 1967, which led to the occupation of the Gaza Strip, the Sinai Peninsula, the West Bank, East Jerusalem, and the Golan Heights by Israel and which heralded the ‘Israeli domination era’ (1967-95), which lasted until the Oslo Accords in the mid-1990s. This period of time saw a constant degradation in bilateral relations and was characterized by hostilities to the point that water resources moved beyond being ‘securitized’ to being ‘violized’.

The Oslo peace process that was initiated after the end of the Cold War led to an amelioration of the domestic political context and water was concurrently ‘de-violized’ by both parties, though more so on the Israeli side which had the upper hand in the negotiations, as Messerschmid illustrates. According to Zeitoun, the signing of the Oslo II Agreement in 1995 was the catalyst of another qualitatively new relationship between Israel and the Palestinians, which he names the ‘Israeli hegemony era’ and which has endured the breakdown of the peace talks and the outbreak of the Second Intifada in 2000, which strained yet again the perception of water in the eyes of both parties to the larger political conflict. Selby (2003a) agrees with this analysis when he writes that the Oslo Accords entailed the “dressing up of domination as ‘cooperation’”, i.e. a discursive repackaging of Israel’s occupation of the West Bank in the new vocabulary of ‘cooperation’. The evolution of control over land and water thus ranges from contestation through empire and domination to hegemony. Those different phases of the political relations between Israel and the Palestinians in the 20<sup>th</sup> century are widely accepted in the academic literature on, and discussion of, the Arab-Israeli conflict in general and water politics in the Jordan River basin in particular. At the same time, the diachronic trajectories of the bilateral relations illustrate the fact that cooperation is a circuitous rather than a progressively linear process.

For the sake of completeness, it is also worth mentioning the three phases of security politics in Israel found in Allan (2001: 247-9), which differ from the above figures and synthesis, but which may also be insightful or, at least, useful with regard to the internal Israeli discourses that Feitelson (2002) describes and that are discussed below: the first phase was based on a perceived risk of food insecurity (1947-86), the second one on environmental insecurity (1986-92), and the third one on a potential loss of control over water during the peace negotiations (1992-2000). All of them are political constructs, and while those domestic phases do not exactly coincide with the bilateral relational periods, the salience of the Oslo Peace Accords is confirmed.

#### **4.1.2 Identifying the sources and dynamics of securitization**

It is imperative to understand that international relations are decisively shaped by the internal dynamics of the parties partaking in an interaction. While securitization is by definition a referential process, internal discourses wield significant explanatory power. Hence, the ongoing internal debate about water management within Israel merits further attention. Feitelson (2002) notes that the previous unison discourse, which was largely based on the appreciation of the development of water resources as part of the nation-building process, has consistently fragmented since the early 1990s as a result of structural changes in the Israeli society and economy. This author identifies two ‘discourse coalitions’ that are currently vying for supremacy in the framing of Israeli water policies: the first corresponds to the agricultural sector and Mekorot (Israel’s national water company), which stress the scarcity both Israelis and Palestinians face and promote the tapping of additional water resources through seawater desalination, whereas the second one is primarily composed of environmentalists and professionals and focuses on the water quality aspects of the conflict, which inevitably leads

to calls for the joint management of the shared water resources (Feitelson 2002: 314). While the agricultural establishment is increasingly being challenged by issue-oriented civic organizations and the new technocratic-managerial discourse, the recent acknowledgement of agriculture's "Zionist-strategic-political value beyond its economic contribution" by an Israeli Parliamentary Committee leads Zeitoun (2008: 72-3) to the assessment that ideology continues to trump scientifically grounded and economically sound water policies at the beginning of the 21<sup>st</sup> century.

It is indeed remarkable that a sector that has long lost its primacy in both the Israeli economy and society continues to exert such a disproportionate political influence merely on the grounds of ideology, which is yet another impressive indicator of the power of ideas. A reason for this lies in the fact that shifts in discourses tend to precede shifts in policies, which hints at an imminent change in Israeli water governance. Concomitantly with agriculture, water, too, maintains a high ideological value in the official political discourse and remains a securitized resource in a complex political environment. Because of the political pressures received from agriculture (lobby groups) and ideology (Zionism), and the changing natural (climate change, environmental pollution, and resource depletion) and social environments (population growth, immigration increase, and economic development), water is now effectively a security issue in Israel. However, there are signs of a change of perception; as "[t]he view of water issues as a matter of cost, rather than national security, ties in well with the shift toward an economic discourse within Israel" (Feitelson 2002: 313), this shift could potentially lead to a desecuritization of water resources in Israel, which in the framework of Buzan, Wæver, and de Wilde (1998) is the optimal long-range option to deal with an issue and which would hence have far-reaching consequences for the Israeli-Palestinian water conflict. There is academic support for the idea that especially civil society is currently

engaged in the desecuritization of water in Israel and Palestine (e.g. Coskun 2009), as will be demonstrated below.

Of course, the issue of water is not only removed from the realm of normal and routine politics on the one side of the conflict, but on the other side as well. Both Israelis and Palestinians rely on the same shared resource and face the same effects of environmental degradation and water stress, albeit to vastly different degrees. In fact, the radically asymmetrical allocation of water between the two entities increases the normative value conferred upon it by the Palestinian side, as is illustrated in figure 4.2. What Dinar writes with respect to Israel, namely that “[t]here is a kind of psychological scarcity, a scarcity of resource in the eye of the beholder” (2003: 190), doubtlessly holds true in the Palestinian case as well. What is particular about the occupied Palestinian territories is that there is an objectively quantifiable scarcity that factually lies at or below the internationally recognized minimum water requirements, as shown in the previous section. This physical scarcity is the basis of the above-mentioned psychological scarcity that fuels the process of securitization. While internal discourses and cognitive dynamics play a pivotal role in transboundary water interaction, domestic politics in the Palestinian territories are less significant in shaping the bilateral water relations due to severe structural constraints and underdevelopment, as well as the lack of a sovereign government and administration that are worthy of these names.

Whether or not one agrees with the assessment of the importance of water in the early stages of Israel’s sovereign existence, there is no doubt that the West Bank’s groundwater resources have become a valuable element in Israel’s strategic water planning since its occupation (Rouyer 2000: 133). To conclude and connect this to the next section, it is worth stressing that the lack of trust between the two sides is a critically important determinant. The sense that the opponent cannot be trusted gives rise to a feeling of fear (of loss of benefits). This fear essentially makes the maintenance of Israeli control over Palestinian water

consumption a desired objective and perpetuates the hegemonically sustained asymmetric power relations that are characteristic of the status quo. We will now turn to this hegemonic relation.

#### **4.2 A hegemonic context concealing conflict**

In accordance with the cognitive mapping of the trajectories of bilateral Israeli-Palestinian hydro-relations and the concurrent securitization of water, this section will examine the hegemonic nature of transboundary water interaction between the two political entities. The choice to approach this interaction through the template of hydro-hegemony should have been sufficiently justified at this point, yet it is worth noting that even in the liberal analysis of the scale dynamics of water governance (in the intra-Israeli and Israeli-Arab cases), Feitelson & Fischhendler (2009) conclude that asymmetric power relations between the parties are ultimately the determinant feature of transboundary water negotiations in the Jordan River basin. The findings of this section will have immediate implications for the second hypothesis, which presumes cooperation to be the more likely mode of interaction over a scarce and finite resource. As this cooperation is superficial in nature and contains and conceals a latent water conflict, it is essential to examine the prevalence of the hegemonic arrangements and the prospects of counter-hegemonic measures taken to achieve a more equitable allocation of the shared water resources. More specifically, these two points will be illustrated with the examples of the competition of discourses around water and non-state actors' attempts to challenge the status quo, thereby responding to the overarching research question regarding the cooperation potential of water in the Israeli-Palestinian conflict.



#### **4.2.1 Competing discourses surrounding water rights and water needs**

At the outset of this section, it is worth recapitulating the various spheres of power which are constituent of hegemony, as well as the distribution of capabilities. Hard power, both in military and economic terms, is decisively in favor of Israel, which also has greater capabilities to define the mutual relation by creating facts on the ground, such as through the construction of settlements or the separation wall (cf. Trottier 2007). On the other hand, soft power (particularly bargaining or discursive power) is more evenly distributed between the two parties, as hegemony theory would suggest, and the Palestinian leadership can draw attention to some, but not all of its concerns, which is why soft power merits particular consideration.

There are competing discourses and narratives regarding the distribution, management, and governance of water resources in the occupied Palestinian territories. Discursive and ideational battles are being fought in the realm of abstraction to achieve interpretive sovereignty, yet they have very real and material consequences for all those affected by the prevailing discourse and the policies it entails. It is important to bear in mind that these discourses occur not only between, but also within the parties and between them and third actors, such as foreign governments and international donors. The ensuing discursive multiplicity and variability account for the difficulties in identifying and tracking the discourses operating in a given setting. As already outlined in the previous section, in Israel alone there are currently several discourses and storylines at work, the dominating two of which can be broadly categorized as agricultural and environmentalist, which contribute to a 'schism between ideology and practice' (Feitelson 2002: 301) in the present political economy of Israel. On the Palestinian side, too, there are multiple water discourses and counter-discourses, such as those that tend to reject any claims of Palestinian responsibility

for the dysfunctional water governance regime and blame Israel for most of the water shortages (cf. Fröhlich 2012) or, on the contrary, those that stress the necessity of cooperation with Israel at all costs, as will be elaborated in this section. Besides these internal discourses, the competition between the ‘water rights’ and ‘water needs’ discourses between Israel and Palestine, as identified by Zeitoun (2008), is a very apt example of such an interpretative battle and highlights the necessity to incorporate the concept of hegemony into the analysis of hydropolitics. Before we turn to the scope and implications of the sanctioned (‘water needs’) discourse, it is necessary to examine the opposing concept of water rights in a first step.

Water as a human right is a relatively recent idea that has gained considerable popularity over the past two decades and has been explicitly recognized by the United Nations in 2002 and 2010, respectively<sup>9</sup>. The rights-based approach to water puts the needs of people first and “promotes human-centered water resource development based on a coherent framework of binding legal norms and government accountability” (Klawitter 2007: 303). Moreover, due to the centrality of water for human life and prosperity, the right to water and sanitation has a direct impact on other human and fundamental rights (ibid.: 326). To be sure, Palestinian water rights were first recognized by Israel in the Oslo II Agreement in 1995, yet they have thus far been neither quantified nor implemented. As Selby points out, the central problem in the debate is the host of conflicting ideas as to what constitute ‘Palestinian water rights’ and as to how to realize them, which he argues “also arises from the fact that the central principles of international water law often conflict with one another, thus rendering it impossible to determine absolutely rightful water allocations” (2003b: 30). Indeed, due to the intrinsically non-enforceable character of international water law and its susceptibility to competing interpretations, Allan (2001: 215) is tempted to comment on water rights that their assertion is

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<sup>9</sup> Those recognitions are the General Comment No. 15 by the Committee on Economic, Social and Cultural Rights in November 2002 and Resolution 64/292 by the United Nations General Assembly on 28 July 2010.

easy, their recognition difficult, and their attainment impossible, which is why he considers them to be not very digestible politics.

It would seem that 'water rights' and 'water needs' are interchangeable and synonymous concepts (in this respect paralleling the wider 'human rights' and 'human needs' discourses, of which they are more focused and concrete crystallizations). Yet these purportedly semantic differences between the two terms actually entail a much more profound conceptual discrepancy. Water needs refer to the minimal water requirements that a human being must have met in order to be able to lead a decent life. Consequently, one could infer from this idea a rather narrow understanding according to which, say, a government or administration is only obliged to guarantee these very basic and fundamental needs; it does not necessarily have implications for existing asymmetries in the abstraction and allocation of water, at least not as long as the basic needs of a marginalized group are met. On the other hand, a water rights perspective might corroborate demands for an equal and equitable share of commonly held water resources, such as the transboundary waters in the West Bank and Israel. It may be for this reason, among others, that the Israeli government considers the issue of water rights as secondary and avoids discussing it. It has been shown elsewhere that Israel has actively sought to marginalize water rights in bilateral negotiations with the Palestinians and defer discussions of ownership to final status talks (Selby 2003b: 142). Indeed, during the Oslo peace talks the Israeli focus was reportedly on Palestinian 'needs' rather than 'rights' and consequently not on the transfer or reallocation of resources (which would have invariably entailed a decrease in Israeli water quantities), but on the increase of water supplies available to the Palestinians (ibid.). Certainly, water needs could be conceptually linked to human needs theory and thus serve as a basis of conflict resolution (cf. Burton 1990), yet with the basic needs of Palestinians met, Israel has little incentive to consent to domestically controversial

and contentious redistributions of water, and the conflict resolution potential of this approach is thus low.

Despite the dominance of the sanctioned discourse, there are civil society organizations and grassroots movements in Israel and the Palestinian territories that beg to question and even challenge the status quo and, in extension, the hegemonic arrangements in place in the lower Jordan Valley. Remember that the discourses are neither unitary nor static, but fragmented and in constant flux. Rouyer mentions the notable example of the joint Israel Palestine Center for Research and Information (IPCRI) that advocates the adoption of a water-allocation mechanism in the region that does not discriminate on the grounds of national or religious identity, thus effectively moving “away from *national water rights* based on history or geography. It transforms the water issue from one of group rights to one of *individual rights*” (2000: 279; original emphases). Feitelson shares this optimism when he argues that “the story line that seems to be the most widely accepted within Israel is that which frames water allocations as a human rights issue” (2002: 314-15). However, despite some progress being made, it is worth considering the possibility that the rhetoric used by politicians or academics conceals the realities on the ground, which is indeed a common yet apt example of the workings of hegemonic power.

In view of these findings, the question arises as to how these facts contribute to, and indeed consolidate, the hegemonic quality of Israeli-Palestinian hydro-relations and induce compliance on the part of the weaker side. Let us recall here that the decisive compliance-producing mechanisms of a hegemonic apparatus are not coercion or the threat thereof (which are projections of hard power), but the infinitely more subtle devices related to soft power. To put this presumption in concrete terms, it is clear that the Israeli positions and interests in a given setting are more easily and cost-efficiently met if the Palestinian leadership subscribes to those positions through the endorsement of utilitarian considerations, normative

agreements, or, ideally, ideologically hegemonic beliefs. While it is hard to establish the exact degree of compliance of a political class and the extent to which it is enacted consciously or unconsciously beyond doubt, it appears clear that, as Zeitoun (2008: 148) notes, the ‘water needs’ discourse propagated by the Israeli government prevails today essentially unchallenged in both the bilateral and international relations of Israel. More importantly, Zeitoun finds that the Palestinian political elites – unlike representatives of Palestinian civil society – have effectively internalized the sanctioned discourse and now naturally use it in accordance with the arguments advanced by Israeli politicians and international donors. Accord and cooperation reign on the surface, but grievances and conflict persist beneath.

The risk that emanates from the political elites choosing a pragmatic approach to an important policy issue, which can be argued to result from both the distributive and integrative exertion of power on the part of the hegemon, is that this ultimately legitimizes and perpetuates an (inequitable) arrangement. Moreover, this process has inevitable international implications, as such inequitable legal and institutional arrangements made in a hegemonic context “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” (Zeitoun et al. 2011: 172; emphasis added). As a consequence, the indiscriminate “promotion of cooperation ‘of any sort’ can reinforce distributive and destructive power asymmetries, and thereby perpetuate conflict” (ibid.: 173). This is a very good illustration of the influence of ideational power and of how compliance can be secured through consent rather than resignation, or through the use of distributive means towards an integrative end. At the same time, these findings hint at the potential usefulness of taking a closer look at civil society actors involved in water affairs, to which we will now turn.

#### **4.2.2 Civil society actors promoting the use of water for peace and reconciliation**

Non-state actors have become increasingly important in shaping national and international politics in the two decades following the end of the Cold War. Civil society is now a widely recognized actor in the political arena that has received recent media coverage (e.g. Aburawa 2011) and, given its potential to act as a securitizing actor and/or as a supporter or contender of a hegemonic context, it is worth examining its role in the Israeli-Palestinian water interaction. Notable civil society organizations with a focus on water include B'Tselem, Bustan Qaraaqa, Emergency Water Sanitation and Hygiene in the occupied Palestinian territory, House of Water and Environment, the Palestinian Hydrology Group, and the aforementioned Israel Palestine Center for Research and Information, as well as the prominent and internationally much acclaimed transboundary non-governmental organization Friends of the Earth Middle East (FoEME), that brings together Israeli, Palestinian, and Jordanian environmentalists and peace activists<sup>10</sup>.

The latter NGO raised particular journalistic and academic interest for its grassroots initiative 'Good Water Neighbors' (GWN), which constitutes an attempt at environmental peacebuilding. The project is based on the idea of partnering a community in one of the three participating political entities with a neighboring community on the other side of the border or political divide to work together on water issues of mutual concern, thus creating awareness for common water problems in the process of improving them on the local level. The NGO is also active on the regional level, lobbying national decision-makers, promoting sustainable development, and implementing strategies furthering cross-border cooperation and peaceful coexistence. The GWN project had verifiable positive effects on the participants' perceptions of environmental and political issues, particularly among the youth, and managed to make

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<sup>10</sup> For an overview and evaluation of environmental peacebuilding initiatives in the Jordan River valley, see Kramer (2008).

itself heard on water issues by the Joint Water Committee (FoEME 2012). Moreover, the GWN model has already been adopted by other organizations in the region and other countries in conflict (notably India and Pakistan). While it is not always made explicit, a central tenet in the mission of the Friends of the Earth Middle East is water rights and their universal realization in the region. In light of this, it can be said that the Israeli and Palestinian civil societies initiated a desecuritizing move by re-evaluating and re-defining their mutual relations and are now actively engaged in structural peacebuilding efforts, as Coskun (2009: 112) affirms.

In addition to non-governmental organizations, academic institutions such as universities, research centers, and think tanks may also act as representatives of a national or even global civil society and influence (or attempt to influence) public policy and opinion. Another noteworthy, yet foreign-funded expression of the idea to use water as a means to peace in Israel-Palestine is the report 'The Blue Peace: Rethinking Middle East Water' by the Indian-based Strategic Foresight Group (SFG 2011). The principal researcher of the report argues that the failure of negotiations over land highlights the need to explore new paths to achieve cooperation and peace (Aburawa 2011). This initiative has a wider regional focus and makes several short-, medium-, and long-term proposals for the constructive and cooperative use of water resources in the Middle East. Some of the technological and economic recommendations by the SFG, such as the construction of a 'Red-Sea-Dead-Sea' canal or the expansion of seawater desalination, are commonly proposed in the relevant literature, while the overarching concept of a 'blue peace', premised on the interdependence of water and politics as well as water security and human security, is rather innovative in its full metaphysical width. It corresponds to what Gerlak and colleagues (2009) refer to as 'hydro-solidarity' and is presumed to transcend resource competition and conflict.

Clearly, this approach is quite distinct from the one taken by the above-mentioned GWN project, which attempts primarily to increase the willingness to cooperate on the level of local communities, rather than national governments. The two initiatives can thus be contrasted with each other as follows: while the Friends of the Earth Middle East is a genuine local grassroots movement that may create miniscule, yet nonetheless significant, new facts on the ground, the Strategic Foresight Group is an example of an external non-governmental actor that attempts to induce change on the level of high politics by bringing leverage to bear on stakeholders and decision-makers. Together, they can be considered to constitute expressions of second-track diplomacy, which by definition can only supplement, but not substitute first-track diplomacy between the political representatives of Israel and Palestine.

According to hegemony theory, bargaining and discursive power may be (successfully) wielded by non-hegemonic actors. The potential of environmental peacebuilding efforts lies in the fact that if these new discourses and ideas gain ground in the Israeli and Palestinian public arenas, they could eventually impact on politics and alter the preferences and interests of those decision-makers that continue to cling to old and outdated storylines perpetuating the status quo. This is especially important in a context where official channels of communication tend to be restricted and confrontational. There is reason to share Feitelson's optimism concerning the discursive shift that has taken place within Israel and that will inevitably result in a shift in politics. Yet it is also important to remember that these grassroots initiatives continue to face structural constraints: asymmetries in power and resources, weak ownership of the processes, limited vertical and horizontal spillovers, and different expectations currently confine the possibilities of a 'blue peace' (Kramer 2008: 29). One must bear in mind that cooperation in water affairs between Israelis and Palestinians has never moved beyond the confrontation of the issues and working together on an ad hoc basis, as figures 4.1 and 4.2 in the previous section illustrate. The interaction has thus far never even reached a technical



level, let alone risk-averting or risk-taking forms of cooperation. At the same time, water resources remain securitized and it may be a long way to depoliticize and consequently normalize the transboundary water interaction. As has been found to be the case for first-track diplomacy, civil society organizations could advance their objectives (and consequently Israeli-Palestinian water cooperation) by focusing their energies on less contentious areas, such as wastewater rather than freshwater management, and by linking water with other issues that promise mutual benefits and induce cooperation (ibid.: 30). In doing so, it is important that they do not lose sight of the bigger picture and actively engage in the wider political process.

### **4.3 Policy implications**

There is no dearth of policy recommendations regarding Israeli-Palestinian hydro-relations. On the contrary, there is a plethora of papers, presentations, and reports that make moderate to radical proposals for how the institutional, legal, and political frameworks that sustain the extremely asymmetrical and inequitable allocation of water resources in the occupied Palestinian territories may be reformed. However, as many authors dealing with the issues at hand stress in their evaluations, the role of science in changing the status quo by formulating purportedly objective and value-neutral assessments is more limited than most of its proponents would like to admit. One does not have to be a devout adherent of constructivism to appreciate the social construction of nature and ensuing perceptions of scarcity and wealth that Fröhlich (2012) discusses. While the existence of such epistemic restrictions holds true for science in general, it is particularly relevant with regard to fields that are fundamentally characterized by risks and uncertainties, such as environmental and, importantly, water management. The recognition of this confinement necessarily entails the acknowledgement of

the fact that there is not the one true or right solution to distributive problems, but that any one alternative to current managerial or operational patterns must be seen in the specific socio-political context in which it is to be applied. Science is, as much as this may infringe upon our self-understanding as objective analysts, not above politics. This has immediate implications for conflict resolution. As Brooks and Trottier point out, “[p]olitical, social, economic and environmental values differ between and within societies, and those differences will lead to different preferences for water management” (2009: 113). This assessment is in line with the cultural specificity of water demand management policies that Allan (2001) notes and which mirrors the cultural specificity of conflict resolution more generally.

Moreover, the limitations on what physical and social scientists can contribute to attenuating the Israeli-Palestinian (political and water) conflict are deeply embedded in the prevailing power structures. It is not enough to identify the injustice of the current water allocation and distribution systems in place in the occupied Palestinian territories and to conceptually draft more equitable and sustainable institutional frameworks. After all, in specific situations it may be very rational for state actors to not cooperate over shared waters (Sadoff & Grey 2005), and appeals to reason and efficiency may go unheard. Therefore, it would rather be necessary to effectively alter the (hydro-) hegemon’s preferences and interests, which might be achieved through strategic issue-linkage and awareness-raising for the potential gains to be reaped from a peace agreement. As a consequence of this realization, the present paper does not attempt to formulate a policy recommendation or solution to the problem on its own, as this would be beyond its epistemological scope, but contents itself with referring to the host of recommendations available in the academic sphere and highlighting the inherent limitations of such reform proposals.

#### **4.4 Chapter conclusion**

The analysis of the securitization of water resources revealed the various dynamics and intentions underlying securitizing moves and shed light on the role of people and institutions in this process. At the same time, the recognition of this human factor indicated the possibility of reversing the process, that is, to desecuritize water. The examination of the hegemonic power relations affirmed the assumption of the second hypothesis, according to which a 'however tenuous cooperation' may be the likely result of the interaction over water. Overt conflict is not a necessity if the more powerful party's interests can be met through a dictated form of cooperation. Moreover, it could be shown that civil society organizations can effectively challenge the hegemonic arrangements and the 'chimera of cooperation' by emphasizing the cooperative over the conflictual dimensions of water. The following concluding chapter will deal with the implications of the analytical part in greater detail.

## 5. Conclusion

In this final chapter, the implications of the preceding analysis for the central hypotheses that guided the research and argumentation of this thesis will be discussed. The first hypothesis designated water as a determinant factor in Israel's ongoing occupation of the West Bank. The validity of this first assumption can be enunciated by way of answering the following question: can it be reasonably argued, in view of the above description and analysis, that Israel holds on to control over the West Bank because of its abundant water resources? The answer is that while there is scant evidence pointing to this being the case, overall water can only be ascertained to be one among various causal factors for the sustained military occupation and continuing expansion of settlements, and is probably not the most salient one. In fact, with increasing capabilities to 'manufacture water' and the continued capability to 'manufacture compliance', to paraphrase Chomsky and Herman (1988), Israel does not have to maintain a financially costly and reputationally damaging occupation of the West Bank for the sake of securing its water supplies. It does so for a variety of other reasons, which, however, are not only beyond the scope of this paper, but are generally very difficult to discern as certain cognitive dynamics in protracted political processes may take on a life of their own, and hence merit their own comprehensive analysis. The first hypothesis can thus be said to have been falsified in the course of this argumentation.

The second hypothesis presumed that there will be no armed conflict or escalation of violence over the transboundary water resources between Palestine and Israel, but that cooperation of some sort will prevail between the two parties. This assumption could be verified in view of the presented evidence, as there are no indications at all of an imminent violent confrontation over water supplies in the region; yet it is important to note that this cooperation "is above all an internationally pleasing and acceptable signifier which obscures

rather than elucidates the nature of Israeli-Palestinian relations” (Selby 2003a: 138). In light of the current shifts in water governance discourses away from preoccupations with water quantity towards considerations of water quality, political and conflict analyses, too, must adjust accordingly and shift their focus from the quantity of treaties and river-basin organizations towards the quality of the ensuing interactions, which can be both conflictual and cooperative, both at the same time.

These two hypotheses were to be synthesized to explore the larger research question as to the conflict and cooperation potential of water in the Israeli-Palestinian conflict. Though functionalist approaches have failed to account for the conflictual dynamics of multilateral riparian relations in the Jordan River basin in the past, and though there is now a consensus in academia on the contingency of water conflicts on the wider political contexts in which they occur, the raising of awareness and fostering of understanding in the very communities that share transboundary water flows can make an actual difference in the lives of ordinary people and is thus a practice worth continuing and extending. While this thesis used a very specific case study to explore the role of water in conflict, its findings must be assumed to be applicable to other contexts around the world as well, though perhaps in a toned down form, given the uniquely complicated political situation that prevails in Israel-Palestine. In conclusion, it can be said that water has both the presumed cooperation and conflict potential that stood at the beginning of this thesis. Neither potential, however, is self-fulfilling, but the interaction over and use of water to any specific end are negotiated and determined in essentially political processes. Water can be used to advance conflict resolution and cooperation between otherwise hostile riparians, yet it also holds the seeds of discord. One must not turn a blind eye on potentially latent conflicts and the possibility of their sudden eruption. As Feitelson (2000) reminds us, the fact that there have been scarcely any ‘water wars’ in the past must not be taken as a guarantee that there will be no such conflicts in the

future, when many of the previously valid criteria and conditions that may have hitherto prevented their occurrence will have radically changed.

Political research should always be conducted with an eye towards the future, and the findings of this thesis indicate several fields for future theoretical and empirical research. First, let us consider its theoretical implications. This paper used two separate theoretical approaches to examine different aspects of transboundary water interaction between Israel and Palestine, yet due to limitations in scope and focus did not attempt to integrate securitization theory and hegemony theory into a general hydropolitical meta-theory. While such a synthesis may be difficult and perhaps even impossible to attain, it may also yield significant epistemological benefits if conducted properly and successfully. The recent surge in the recourse to securitization theory in explaining water conflicts and water politics underlines the fruitfulness of future research in this direction.

The second point is more practical. In light of the transboundary nature of much of the water in our study area and the mutual reliance on it by Israelis and Palestinians alike, calls for the joint management of the scarce resource are already enjoying wide support in academia and politics today. However, the physical realities – including those that are consciously being created (such as settlements and infrastructure) –, may bring about highly political consequences for the feasibility of a two-state solution. Given the impasse of the peace process and Israel's continuing expansion in the occupied Palestinian territories, more and more voices openly doubt that an independent Palestinian state is achievable at all. Water is only one of several factors that contribute to this new situation and make the establishment of a bi-national Israeli-Palestinian polity seem more desirable, if not more likely, yet it may prove to be one of the most determining and compelling ones. This paper thus also points to a very promising area for further empirical research.

The penumbra of politics is omnipresent and inescapable in conflict resolution. The epigram to this thesis, a quote by former Israeli prime minister and current president Shimon Peres, expresses the nexus between water and politics and implies its potential usefulness as a means to peace. Water and peace can be very intimately linked in philosophical reasoning, and there are no grounds for rejecting the possibility to constructively combine them in the real world as well, as human well-being depends on the existence and availability of both peace and water. This dialectic of water, peace, and politics finds expression in the words of Alwyn Rouyer, who concludes that “if peace equals water, then politics equals peace” (2000: 280), an assessment that is hereby endorsed and deemed fit to conclude our own analysis of the matter.

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