WATER WARS: THE RISE OF A HEGEMONIC CONCEPT

Exploring the making of the water war and water peace belief within the Israeli–Palestinian Conflict

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Hegemonic concepts exist within every society. They structure our cognitive maps and therefore contribute to shape our perception of the world, our definition of the issues we face and the analyses we can achieve. The idea of wars being waged for water has grown over the last twenty years to the point that it could become a new hegemonic concept. This idea is now widely contributing to shaping the perceptions of many present international situations. This article will investigate the issue of water wars as a hegemonic concept. It will first detail what a hegemonic concept is, how it is constructed and propagated. It will then turn to the issue of water wars and examine the pre-existing hegemonic concepts that provided the background enabling the emergence of this new hegemonic belief. It will then examine the manner in which the water war concept has been challenged over the last decade and how this matches a war of position as Gramsci defined it. It will tentatively identify the categories of social actors who benefit from either the water war or the water peace discourse and the categories of social actors who propagate these concepts.

Most of the water war literature has focused on the Middle East. This article will therefore explore the mechanisms whereby the water war has been constructed and propagated in Israel and in the Palestinian Territories as a case study.

1. WHAT IS A HEGEMONIC CONCEPT?

The concept of hegemony was developed by Gramsci in order to explain how a state managed to assert its power over a population living in a given territory. State power, said Gramsci, does not consist only of coercion. The means of repression at the disposal of a state are only the most visible element of its power. The other fundamental element of state power, and probably the most important one, is persuasion. A social group can become dominant and gather state power in its hands only if it succeeds in developing its hegemony within the civil society by persuading the subordinate groups to accept the values and ideas that it has adopted and by building a network of alliances based on these values (Simon, 1991, p. 18).

The hegemony of the dominant group is therefore very much ideological in nature. The dominant group generates "common sense," the uncritical and partly unconscious way in which people perceive the world. This common sense is maintained by the relations existing within the civil society, as churches, political parties, trade unions, mass media, and other institutions propagate it. Gramsci therefore distinguishes the state apparatuses, which have a monopoly over the legitimate use of violence and coercion, from the civil society institutions, which build and maintain the hegemonic common sense that allows the population to accept the state's power as legitimate.

Gramsci defined civil society as the set of all institutions that do not belong either to the state or to the realm of economic production. The media, churches, and trade unions all belonged to this civil society within which hegemonic concepts took root and flourished. He included schools within civil society, on the basis that the educative relation is essentially a voluntary one even though the state usually subsidizes schools and sets the curriculum (Gramsci, 1957).

Other authors have defined civil society differently, and bodies such as the EU commonly consider private companies to be part of civil society. Private enterprises clearly play an important role in propagating hegemonic concepts that structure the modern common sense concerning water and water wars, and institutions such as the media are often private enterprises. Their role will therefore be included in this article along with that of the other members of civil society.

> Ideologically hegemonic conceptions provide stabilizing distortions and rationalizations of complex realities, inconsistent desires, and arbitrary distributions of valued resources. They are presumptions that exclude outcomes, options, or questions from public consideration; thus they advantage those elites well positioned to profit from prevailing cleavage patterns and issue definitions. That hegemonic beliefs do not shift fluidly with changing realities and marginal interest is what makes them important. That they require some correspondence to "objective" realities and interests is what limits their life and the conditions under which they can be established and maintained.
>
> (Lustick, 1993, p. 121)

Gramsci paid much attention to what he termed a "war of position." Such a struggle is subtle and nonviolent. It is conducted in the press, in educational and religious institutions, and in the political arena (Gramsci, 1957). The outcome of a war of position is either the persistence of ideologically hegemonic concepts, the destruction of formerly ideologically hegemonic concepts, or the emergence of new ones. Such wars of position certainly do not imply any kind of conspiracy. Various social groups promote certain values and certain definitions they wish to become hegemonic. This

will in turn affect the resilience of other hegemonic concepts in an unpredictable manner. Many social groups and many institutions act as vehicles for the propagation of hegemonic concepts without benefiting from them at all. The example of the female vote in Europe illustrates this very well. The idea of females voting seemed, at best, preposterous a hundred years ago. In England, a number of suffragettes were sent to Holloway Prison because of their activism. Their war of position proved successful and no one in the European political landscape now challenges the legitimacy of the right to vote for women. This successful war of position later affected many other hegemonic concepts concerning gender, such as the legitimacy of women's presence in the work force. Whether or not a social group is successful at imposing or toppling a hegemonic concept largely hinges on the echo it will find for this idea among other institutions and social groups.

This article will examine the rise of the hegemonic concept concerning water wars. It will investigate the mechanisms whereby such an idea emerged and was propagated. It will also briefly examine the war of position that is now being waged against the concept of water wars.

2. THE EMERGENCE OF THE CONCEPT OF WATER WARS

Hegemonic concepts are not created in a vacuum. They emerge within a context where other hegemonic concepts have already taken hold and where other wars of position are being waged. Before examining empirically the emergence of the concept of water wars, other hegemonic concepts concerning water and concerning war will need to be reviewed. These, and the accompanying wars of position, are the soil in which the concept of water wars is taking root and is growing.

2.1. Water Development

The idea according to which "water should be brought where it is needed" has a long history in western society and has led to the emergence of a hegemonic concept of "water development." The water literature is rife with introductory declarations concerning the great quantity of freshwater available on the planet and the crucial necessity of redistributing this wealth more adequately. "Globally, freshwater is abundant. Each year an average of more than 7,000 cubic meters per capita enters rivers and aquifers. Unfortunately it does not all arrive in the right place at the right time" write Turner and Durbourg (1999) in a vein that is very representative of a dominant assumption.

Such a statement implies that there *is* a right place and a right time for water. It implies a clear hierarchy of values concerning water users. Some are deemed to be more deserving than others. Indeed, water will be used wherever it flows, but fish and algae living in northern Canada rate as less important than human beings in need of drinking water, food, and sanitation. Such an anthropocentric vision of water is widely shared by most social actors. It is also coherent with the conservationist trend in environmentalism. Two types of environmentalism can be distinguished: that of conservationists and that of preservationists. Conservationists want to protect nature as a resource for human use whereas preservationists seek to protect nature itself from human use (Milton, 1996).

It is fair to say that the idea of water as a basic human right is well entrenched as a hegemonic concept around the planet. The right of thirst has long been enshrined in Muslim law and is not questioned in any international forum (Faruqui et al., 2001). It satisfies the essential criteria to qualify as a hegemonic concept: anyone evoking the possibility of a distribution system that would not ensure a minimum supply of freshwater and food to every human being would apologize for mentioning such a

thought. Were that person to advocate such an idea, they would be regarded as monstrous. At best, the person would be laughed at. The organizations that struggle against the construction of big dams always put forward their adherence to the principle of water as a human right. They demonstrate how such projects, while claiming to bring water where it is needed, would actually compromise this right for the social group they defend (see for example: Roy, 1999).

This first ideologically hegemonic concept of water and food as basic human rights has provided the rationalization for what has become another hegemonic concept: "water development." As humans have a basic right to food and water, water development would bring clean water to them for their domestic needs, provide sanitation, and allow the development of irrigation to provide food. Lustick's reference to hegemonic concepts rationalizing complex realities and excluding options or questions from public consideration is very relevant here. Transferring populations from water-scarce areas to water-rich areas could have satisfied the human right to water and food. It could have been satisfied by populations deciding to prioritize their use of water and resorting to virtual water.[1] But water development came to signify exactly the opposite: water would be brought to the people for domestic consumption and for irrigation even if these people elected to settle in the middle of the desert.

Which groups, which "elites" in Lustick's terms, benefited from such an issue definition? Construction companies appear as obvious candidates, as they grew out of this version of water development. They clearly participated in maintaining this belief and in propagating it. But many other groups participated in the making of water development, as it is understood today.

Marc Reisner detailed the manner in which the New Deal came just at the right time in the 1930s to rescue big agrobusinesses in the San Joachim Valley. Extensive irrigation of this Californian desert had started after the First World War when diesel pumps became widely available. By the 1930s, the water table had been severely depleted while thousands of economic refugees had fled to California from the Dust Bowl. The construction of the Hoover Dam provided water to keep irrigating the San Joachim Valley. It provided jobs to workers who would otherwise have starved. The human right to water and food was therefore ensured by a specific form of water development that allowed agrobusinesses to become giants while externalizing most of their water costs on the taxpayers. It allowed politicians to gain support from the economic refugees who secured a livelihood as farm laborers as well as from the agrobusinesses (Reisner, 1993). All of these groups benefited from maintaining the hegemony of a very specific definition of water development. Reisner demonstrates how water development came to mean the irrigation of the Californian desert while American farmers in the east of the country, where rain-fed agriculture can be carried out, were receiving grants to leave their land fallow. Such a concept of water development provided "stabilizing distortions and rationalizations of complex realities, inconsistent desires, and arbitrary distributions of valued resources" (Lustick, 1993). This very specific definition of the term will now be referred to whenever the words appear in italic in this text.

The economic benefits derived by some social groups from such a *water development* are not the only driving force supporting its propagation. In 1958, Jordan undertook the construction of the East Ghor Canal (now called King Abdullah Canal) to bring water from the Yarmuk River 69 km along the Jordan Valley, east of the Jordan River. This canal was meant to be the first phase of a greater irrigation system that was to provide water on both sides of the Jordan River. The 1967 war and the consequent occupation of the West Bank cut this project short.

The East Ghor rural development project was funded by USAID and constituted, at the time, the largest development project ever undertaken by Jordan as well as the largest American investment in the field of development in the Arab Middle East. The project goals were spelled out explicitly in the project document. It aimed at

completing the population displacement that had occurred during the war of 1948 by making it permanent. It aimed to settle the Palestinian refugee population from what is now Israel onto Jordanian land. The United States had identified the issue of the refugees as early as 1949 as a major obstacle to the settlement of the Arab–Israeli conflict. Naively enough, it believed that bringing water to a previously arid land would allow the permanent settlement of the Palestinian refugees via a land tenure reform. These refugees would become small farmers, it was hoped, who would change their perception of their identity and would give up their claim to return to their native land (Trottier, 2000).

Unsurprisingly, the project failed to accomplish such a goal. Sutcliffe's investigation among the farmers of the Ghor canal, in the 1960s showed that the Palestinian refugees still regarded themselves as Palestinians (Sutcliffe, 1969, 1973). Nowadays, they have mostly moved out of the Jordan Valley, where Asian workers are employed as laborers on land that was put under irrigation with the explicit purpose of rooting Palestinians into Jordanian land.

In this case, *water development* certainly provided "stabilizing distortions and rationalizations of complex realities." It was harnessed within a vain effort to achieve a permanent population displacement that would be accepted as legitimate by the refugees. The idea of *water development* has played an important role within Zionist ideology, as Clive Lipchin has demonstrated (2003). It has played a crucial role as well within Palestinian institution building since 1993. Here, the focus on the development of infrastructure to bring more water to the users distracted donors' attention from the construction of democratic institutions to manage them. If *water development* only meant increasing the water supply, it did not imply building sustainable democratic and widely accepted means of allocating, using, and accessing the resource.

2.2. Violent Conflict

A main achievement of state power in modern times has been the persuasion of the population concerning the legitimacy of the use of violence. In the western world, the idea according to which the state has a monopoly over the legitimate use of violence has become hegemonic. This legitimacy or lack of it confers the status of either murder or execution to what would otherwise be, technically, the same act. State violence is referred to as "war" or "police operation" whereas violence from another source is referred to as "terrorism" or "banditism." The labeling of identical acts as war acts or terrorist acts is often enough to categorize them as legitimate or not, since the cognitive map of each citizen has been structured according to this hegemonic concept.

Any group carrying out violent acts strives to label them as acts of war in order to secure that legitimacy. In the case of a body that is not a state, this has generally implied, over the last century, claiming to be a liberation movement that will eventually create a state. The objective of creating a state became necessary to acquire this legitimacy, even for groups such as the Kurds, whose form of political organization was not the territorial state (Badie, 1992).

The water war discourse started growing in a fertile soil where a very specific definition of water development had become hegemonic and where the only legitimate violent conflicts were believed to be wars between opposing states. Of course other hegemonic concepts contributed to this fertile ground: the idea according to which the state is the only institution spelling out the rules of social control and determining who will exercise this social control, for example. Investigating this assumption, Joel Migdal demonstrated how it rarely reflects reality, especially in the developing world. He developed his state-in-society model in order to account for the interaction between the state and the multiple other institutions that spell out the rules and exercise social

control (Migdal, 1988, 2001). How western hegemonic concepts concerning the state's role in society have obscured the understanding of water conflicts in the non-western world has been explored elsewhere (Trottier, 2003).

The eventual growth of the idea of water wars as a hegemonic concept must be analyzed within the context of other pre-existing and well-entrenched hegemonic concepts that distorted and rationalized unequal distributions of resources and specific distributions of power in various societies. These acted as building blocks supporting the growth of new concepts, they limited the range of options that appeared possible and they provided fences limiting the issue definitions: states wanted *water development* at all cost, therefore states might wage war in order to secure it. Such an issue definition precluded any consideration of the fact that water development could have a different meaning for various social groups, that states may not be the only social actors that benefit from *water development*, that other social groups may actually benefit from it more than the state itself while the state may loose from it, or that states rarely choose to go to war over one issue alone.

2.3. Water Wars

"Water conflicts will cause the wars of the twenty-first century." This is more than a catchy statement. It is the object of numerous arguments and counter-arguments in the scientific community, and much effort has been devoted either to proving or disproving the causality between water scarcity and water wars.

Thomas Naff and Ruth Matson seem to have launched the debate by arguing, "water runs both on and under the surface of politics in the Middle East" (Naff and Matson, 1984, p. 181) and analyzing the role played by water in riparian state relations. A series of publications followed, which supported the concept of the causal link between water and war (Starr; Starr and Stoll, 1988; Bulloch and Darwish, 1993; Biswas, 1994; Soffer, 1994, 1999). The development of this literature led Hussein Amery to refer to "the well-established and thoroughly documented positive link between resource scarcity and violent conflict" (Amery, 2001). Clearly the idea of a causal link between water scarcity and war has grown over the past twenty years to the point that it could become ideologically hegemonic. In March 2001, even Kofi Annan was declaring "and if we are not careful, future wars are going to be about water and not about oil" (Annan, 2001). This illustrates that the concept was not confined to academic circles and was structuring the thoughts of high-level political officers. The idea that competition for water in water-scarce areas constitutes the greatest danger of war was growing to be taken as a given, an unquestionable fact of life.

This school of thought led to what Ohlsson (1999) has called "the numbers game." As the causal link between water scarcity and war remained unchallenged, the relevant question appeared to be quantitative: how much renewable water existed within the boundaries of every state? How much constituted scarcity? Engineers and hydrogeologists produced numerous studies detailing the various quantities of water available to every state in arid zones, especially in the Middle East (Elmusa, 1996).

M. Falkenmark pioneered the idea of a water stress threshold. The ratio of the quantity of renewable water within a state's territory to that state's population was held as an indicator of water scarcity. Water security was achieved if the state contained more than 10,000 cubic meters per capita. Water availability was deemed adequate if the state contained from 10,000 to 1,666 cubic meters per capita. States endowed with 1,000 to 1,666 cubic meters per capita were deemed to be water stressed. They were said to be chronically water stressed if they contained between 500 and 1,000 cubic meters per capita and to lie beyond the water barrier if they contained less than 500. This indicator of water stress was essentially based on an estimate of the quantity needed in agricultural production using irrigation. A state that

could not be self-sufficient in food production was deemed to be water stressed although these per capita water quantities were sufficient to cover domestic needs.

Disturbing charts were drawn up, showing the various renewable water endowments of Middle East states (Beshorner, 1992). According to such an indicator, Turkey, Lebanon, and Iraq were deemed to have adequate water supplies while Israel, Jordan, the West Bank, and the Gaza Strip lay beyond the water barrier. Such inequality was deemed highly dangerous as it was thought it could propel the water-poor states to wage war on the water-rich states. This became the topic of detailed international relations study and social scientists followed suit by focusing on how international law could contribute to ”just” and sustainable water sharing among states, suggesting various allocations among riparian states (Lowi 1993a, 1993b; Benvenisti and Gvirtzman, 1993). It is worth noting that the majority of the water war literature focused on the Middle East.

2.4. Water Peace

A second school of thought emerged throughout the 1990s, denying the causality between water scarcity and international war. J. A. Allan developed the concept of ”virtual water” to describe the water necessary to produce imported food. Importing a ton of cereal was virtually equivalent to importing the corresponding quantity of water necessary to produce it. Allan demonstrated that more ”virtual water” already flowed in the Middle East than real water flowed in the Nile (Allan, 1998). Indeed, by 1999 Jordan was already importing 91 percent, and Israel 87 percent, of their cereals (Postel, 1999). Food security does not necessarily entail food self-sufficiency, he argued. Calculating water stress indicators on the basis of the agricultural production capacity does not make it possible to predict the likelihood of war among states. Arid states have far more to gain from cooperation in keeping the price of cereals low in the international market than in wars against each other to appropriate the other’s water (Allan, 1992).

In what is probably the most ambitious survey of water crises and treaties around the world carried out so far, Aaron Wolf (1998) argued that water has brought about much more interstate cooperation than conflict. He analyzed 412 crises among riparian states between 1918 and 1994 and identified only seven cases where water issues contributed to the dispute (Wolf, 1999). Empirical evidence thus seems to corroborate Allan’s proposition.

Much of the water war literature had concentrated on the Middle East, especially on the Arab–Israeli conflict, and so did much of the water peace literature. Arnon Medzini focused on the link between water resources and the determination of the limits of the state of Israel. He argued that water did not play a role either in demarcating the mandate’s border in 1923 or in determining the 1948 armistice line (Medzini, 1997). Gershon Baskin calculated that were Israel to buy in 1993 a quantity of water equivalent to that lying in the West Bank’s aquifers, it would spend 0.67 percent of its GDP. No state in its right mind would ever go to war for a stake that was worth so little, said Baskin (1994). The authors promoting this second school of thought argued that states face water scarcity rationally and cooperate in order to solve these problems, simply because that is the most rational thing to do. The UNESCO launched a PCCP program in 2000, ”From Potential Conflict to Cooperation Potential,” in the hope of reversing the growth of the first school of thought and of persuading educators, decision makers, politicians, and diplomats that water generated cooperation much more frequently than war.

3. THE ANTHROPOMORPHIC STATE

The water war literature tends to perceive a rather anthropomorphic state, one that deals in a unified, coherent, and rational manner with its water needs. It assumes the need for *water development* and the response to this need within the state's foreign policy. This trend is much less dominant in the water peace literature. Tony Allan, for example, shows that states have spontaneously adjusted to importing their cereals without formulating a specific policy in this respect. Yet, many proponents of the water peace concept show a firm belief in the anthropomorphic state (for example: Ayeb, 1998).

The anthropomorphic state hardly resists scrutiny, however. In a careful study of Zionist attitudes towards water, Aaron Wolf showed how Aaron Aaronsohn stressed the need to secure all water resources feeding the country within the boundaries of the mandate over Palestine. His document, dated January 27 1919, explicitly calls for the boundary of Palestine to be that of its watersheds (Wolf, 1995). The official Zionist delegation to the peace conference adopted his arguments and boundary propositions, yet the final official propositions displeased him greatly. Indeed, once at the negotiating table, the boundaries had been redrawn according to other priorities. This version of events is also corroborated by Medzini's work: the French and English preoccupations with railway routes had gotten the better of Zionist aspirations to water (Medzini, 1997). An individual cannot afford to compromise his basic need to water, but statesmen undertaking international negotiations have a different prioritization of their needs. There is a limit to the anthropomorphic vision of the state. This is a distortion that rationalizes a more complex reality. It is a hegemonic concept that underlies the discourse on water war.

4. EXPLORING THE RISE AND FALL OF WATER WAR AND WATER PEACE AS HEGEMONIC CONCEPTS

4.1. Benefiting From the Water War Concept

The social groups that benefit from hegemonic concepts are not necessarily the ones that propagate and maintain the hegemony of these concepts. Identifying who benefits from the water war concept and who propagates it is worthwhile. The same exercise needs to be carried out in the case of the water peace discourse. The water war concept has been essentially developed using Middle East examples, which prompts us to identify first such social actors within the Israeli–Palestinian situation.

Perhaps few politicians have propagated the water war concept as bluntly as Raphael Eitan when he was minister of agriculture. He ran a full-page advertisement in the *Jerusalem Post* in the late 1980s arguing that Israel had no choice but to maintain the occupation of the West Bank in order to secure its access to water. The advertisement noted the interdependence of the aquifers in the West Bank and in Israel and went on:

> This intense interdependence and the scarcity of water supplies accentuate even more the severity of the problem of authority. For under such conditions, even if some sincere and trustworthy Palestinian party could be found with whom an agreement could be made, the problem of allocating such a vital and scarce shared resource would make disputes almost inevitable. . . . It is difficult to conceive of any political solution consistent with Israel's survival that does not involve complete, continued Israeli control of the water and sewerage systems, and of the associated infrastructure, including the power supply and road network, essential to

> their operation, maintenance, and accessibility. . . . This is an important point to ponder for those advocates of Israeli concessions who believe the Jews should have a viable independent state in their ancient homeland. It is important to realize that the claim to continued Israeli control over Judea and Samaria is not based on extremist fanaticism or religious mysticism but on a rational, healthy, and reasonable survival instinct.
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> (Reproduced in Wolf, 1995, pp. 233–4)

Although Eitan did not use the words "water war" in this advert, he was advocating the continued military occupation of the West Bank for the sake of water. In 1994, Israel signed a peace treaty with Jordan whereby it agreed to give back land while it retained the right of access and use of its water. Indeed, article IV annex II of the 26 October 26 1994 peace treaty between Jordan and Israel deals with the area of Wadi Arava that was occupied by Israel in 1967. Article IV paragraph 1 declares that Jordan has sovereignty over the wells and the hydraulic systems that were built by Israel. However, Israel will maintain their sole use and can increase its withdrawal by 10 cubic hm a year according to article IV paragraph 3. The Israeli–Jordanian peace treaty weakens Eitan's argument. It shows that Israel can give back land to an Arab regime without endangering the security of its water supply from that land. Brandishing the water war argument was useful for Eitan because it allowed him to associate water access and water use to the survival of the Zionist goal: a Jewish state. It helped obscure the fact that farmers were using most of the water at a subsidized cost. Another politician could have chosen to emphasize that switching to virtual water would decrease the dependency on West Bank water and might have made a compromise on land acceptable. Such an option would have angered Eitan's constituency, as farming was deeply linked with Zionist ideology. Eitan preferred to promote the concept of water wars, regarding anyone who suggested Israel could evacuate the West Bank as an enemy supporter aiming to endanger Israel's water security and very survival.

Another set of social actors in Israel has benefited from the propagation of the belief in water wars: the companies that would benefit from building desalination plants. In early 2001, the Israeli newspapers were forecasting an impending water crisis and were multiplying interviews with Mekorot (state water utility) officials.[2] Curiously enough, much attention was paid to the unacceptability of the idea of forbidding people to water lawns and wash cars. Such measures are common in water rich countries in cases of drought, so their portrayal as unacceptable in an arid area was surprising. This "crisis" led the Israeli government to undertake the construction of desalination plants. Whether or not such desalination plants are affordable for the Israeli taxpayer is quite debatable. In 2002, the Israeli government expected the price of a cubic meter of desalinated water to amount to less than $0.50 a cubic meter.[3] Such a cost may very well prove to be unrealistic in the future and the real costs may very well rise far above this figure.[4] Facing such potential costs, taxpayers may recoil and may prefer to stop watering lawns. Averting a water war would provide a much better motivation to accept the burden of desalination.

In March 2002, two senior figures in Israel, the National Infrastructure Minister, Avigdor Lieberman, and the chairman of Mekorot, Urie Sagie, declared that Israel would have to reduce the quantity of water it transfers to Jordan and to the Palestinians (Rinat, 2002). The 1994 Israeli–Jordanian peace treaty specifies in its annex II a yearly water exchange between Israel and Jordan. A canal was built linking the Yarmuk to Tiberias Lake and allowing winter floodwaters from the Yarmuk to be used by Israel. In exchange, Israel provides some 55 million cubic meters of water to Jordan in summer. Ever since the conclusion of the peace treaty, Israeli politicians have repeatedly threatened not to honor their water commitment to Jordan. Such

aggressive rhetoric was generally aimed at the Israeli public and may have appeased those social groups who claimed greater water quotas.

Threatening to reduce the water transfers to the Jordanians and Palestinians just as the second Intifada was worsening in intensity certainly brought out the specter of water wars. "The officials responsible for the national water economy are anxiously awaiting the operation of several large water desalination plants scheduled to begin operating within two or three years," reported the press (Rinat, 2002). Certainly the specter of water wars should entice taxpayers to foot the very heavy bill for desalination better than the perspective of dried up lawns.

In Israel, the belief in water wars is now playing a role very similar to that played by *water development* in the United States in the 1930s. Some companies are reaping great benefits from the new desalination policy. Politicians are benefiting as well and taxpayers will foot the bill because the hegemonic concepts of *water development* and water wars lead them to accept this expensive undertaking as legitimate. In 2001, Mekorot, the Israeli national water company, was hoping to secure the contract for the construction of desalination plants. It therefore emphasized the crisis situation instead of promoting cuts on lawn watering and car washing (*Jerusalem Post*, January 23 2001).

Several Palestinian social actors have also benefited from the propagation of the water war concept. In a careful analysis of the evolution of Palestinian social structure, Glenn Robinson showed how three fundamental drives weakened the power of old Palestinian notable families after 1967. First, wage labor in Israel attracted the poorest and led to the virtual elimination of the Palestinian peasantry, which decreased the rural reliance on notable patronage. Second, land confiscations carried out by the Israelis undermined the very basis of the notables' power. Third, Palestinian universities were set up after 1972 and started producing a new elite that began a process of political mobilization in the 1980s. This new elite was the first generation of West Bankers and Gaza Strip Palestinians to be educated in Palestinian universities. It originated from social classes that had not had access to higher education previously, as two-thirds to three-quarters of students in Palestinian universities in the mid-1980s came from villages of refugee camps (Robinson, 1997, p. 35).

This new elite undermined both Israel's social control in the West Bank and the power of the Palestinian notable social class. Deprived of state institutions to integrate, it organized via numerous non-governmental organizations (NGOs). These targeted areas such as health, agriculture, or water because they could not officially appear as state building bodies. The first Intifada led to a decrease in the number of Palestinians employed as wage laborers in Israel and a concomitant rise in the agricultural work force in the West Bank. Estimated at 38,400 in 1987, the number of agricultural workers in the West Bank had risen to 50,200 in 1990 (Robinson, 1997, p. 63). The leadership provided to these "new peasants" now came from the NGOs set up by the new elite educated and mobilized in Palestinian universities. The development of agriculture here is limited by the development of irrigation. The Palestinian Hydrology Group (PHG), an NGO typical of this new leadership, started an extensive program of rainwater-harvesting cistern construction and well rehabilitation. It encouraged Palestinian farmers to pump their full quota of water. Indeed, by 1990, 38 percent of Palestinian-used West Bank wells (sampled by H. Awartani) were pumping 90 percent or less of the quota attributed to them by the Israelis (Awartani, 1992, p. v). PHG encouraged farmers to pump their full quota or more, portraying it as a nationalist act: whatever water was not pumped was given away to the Israelis.[5]

Whereas the old notable families had drawn their power from the client relations they established and the redistribution of resources they were able to operate, the new elite drew its power from its nationalist credentials. The idea that the Israelis had occupied the West Bank to steal the Palestinian water could only support the

legitimacy of this new elite as it was undertaking *water development* programs. This new elite probably never manipulated such a concept cynically and seems to believe it sincerely. Harnessing the water wars concept was useful whereas questioning it was destabilizing, so the new elite had no interest in doing so.

Once the Palestinian Authority was set up, it found itself competing with the elite that emerged during the Intifada in the exercise of leadership and social control. The Palestinian Authority was therefore pulled into the propagation of the water war concept as it strove to acquire as much legitimacy as possible with the Palestinian population. In fact, the concept of water wars proves to be useful to both Israeli and Palestinian politicians who may find it more useful in the short term to focus their constituency's attention on the "other," on the enemy that appropriates its neighbor's resource unlawfully, rather than on the thorny issues of conservation and management. The latter imply cutbacks for some users and prioritization of the uses. Such topics are bound to anger certain social groups. In the Palestinian case, it raises the very thorny issue of property regimes concerning water. Most of the Palestinian-used water is presently governed by local oral customary institutions according to communitarian property regimes. Such a set up prevents any sectoral reallocation or geographical reallocation from being decided by the Palestinian Authority. Any attempt by the latter to modify these existing property regimes is bound to be extremely contentious.

4.2. Propagating the Water War Concept

As for all hegemonic concepts, many members of civil society who do not benefit at all from the propagation of the water war idea have nevertheless contributed to its growth and maintenance. University researchers and graduate students have clearly played an important role here. Fieldwork tends to be short and precious for many graduate students and researchers. Any student wishing to tackle the issue of water in the Arab–Israeli conflict will encounter an imposing literature based on the anthropomorphic state assumption that does not question the concept of water wars. The temptation is great, then, to join in the numbers game and merely attempt to quantify the water available and argue in favor of this or that water sharing which would satisfy international law best. This temptation is made all the greater by the fact that the student carrying out fieldwork will initially visit NGOs interested in the water issue, the libraries of which will be stocked with such literature. The student will rarely benefit from a long enough fieldwork to be able to invalidate the anthropomorphic state assumptions and to understand the complex interactions among the numerous social groups that compete for the control and the use of water.[6]

The press also plays a crucial role in the propagation of the water war concept. References to water wars systematically provide a catchy title, of course, while a quarter-page article rarely allows a journalist to dwell in depth on the complexity of water competitions. Curiously, the *Jerusalem Post* participated in propagating the idea of water wars when it showed a map of South Lebanon, then occupied by Israel, including a point where Israelis were supposed to extract water from the Litani River. No evidence existed concerning this water withdrawal, but the idea had become widespread enough for the newspaper to use such a map without discussing it. The Israeli press regularly raises the specter of water wars as well, when it reports Israeli announcements concerning its not "giving" water to Jordan this year. The press generally fails to point to the fact this is part of a water exchange with Jordan and generally pays little attention to the fact that such threats were not implemented in the past years.

Lustick emphasized the fact that hegemonic concepts "require some correspondence to 'objective' realities and interests" (Lustick, 1993, p. 121). The

water war concept certainly does have some correspondence to reality in the West Bank. The agreement signed by Israel and the Palestinians on September 28 1995 became famous for the annex 10, paragraph 20, article 40 of the Protocol concerning Civil Affairs, which lists the quantities of water from each of the three West Bank aquifers that will be used by Israelis and Palestinians during the interim period. In total, 82 percent of the water is supposed to be used by Israelis and 18 percent by the Palestinians. Such figures have been contested lately by the Palestinians, as part of their water share was yet to be *developed* at the time of signing the agreement, and it appears that the water of the eastern aquifer is too saline for domestic use. This could in effect mean that the real proportions of water use might amount to 85 percent and 15 percent. Such a leonine sharing provides supporters of the water war concept with their best argument as it grants Israelis a far higher per capita supply of water than it does the Palestinians. The flaw of the water war theory lies in the fact that it postulates that such an unequal distribution of resources would provide a motivation for a military occupation and for its maintenance. It lies in the fact that it does not deconstruct the "competition for water" into the numerous conflicts and competitions opposing a great variety of local, national, and international social actors. Such a deconstruction shows that many social actors of both nationalities are advantaged or disadvantaged by the present water sharing and water discourse.

4.3. Benefiting from the Water Peace Concept

Identifying which social actors benefit from the Water Peace concept is important in order to understand the impact of its propagation and of its eventual success as a hegemonic concept structuring our perception and interpretation of reality. Clearly, anyone with an interest in stability in the Middle East benefits from the propagation of the water peace concept. Citizens might be less receptive to military solutions if they strongly believe that cooperation alone will solve their crucial water problems. Whereas national politicians may derive a certain benefit from the water war concept, UN diplomats or EU envoys attempting to broker a sustainable peace deal may find it quite harmful for their purposes. Construction companies may derive as much benefit from the water peace concept as from the water war concept so long as it remains associated with *water development* in its narrow sense.

Many of the social actors benefiting from the water war concept seem to deploy their strategies on a local or a national scale. Conversely, many of the social actors benefiting from the water peace concept seem to deploy their strategies on a global scale.

4.4. Propagating the Water Peace Concept

Clearly, academics have been playing a key role in propagating the water peace concept. Whereas much popular literature has been devoted to the topic of water wars, the water peace literature has always targeted an academic readership.[7] Media such as the press could eventually be harnessed in the propagation of the water peace concept, just as they have been in that of the water war concept, but do not appear to have been so far. Several hypotheses can explain this phenomenon. Conflict resolution studies have often emphasized the greater popular appeal of a call to war over a call to cooperation. This does not necessarily mean that the water peace concept is doomed never to replace the water war concept in its hegemony. For example, the population of the western world now generally subscribes to the belief that "democracies do not wage war against each other," a hegemonic concept that feeds on the other present hegemonic belief in the higher value of democracy over other forms of governments.[8] Similarly, the belief that "the need to cooperate in facing water scarcity leads governments not to wage war against each other" could

eventually rise to hegemonic status. The main difficulty such a concept would have on its way to hegemony should be the clear benefit many politicians can have from advocating the water war concept in order to mobilize their constituencies. This benefit can take the shape of preventing challenging issues from emerging within the political arena, such as a critical investigation of the present water management or justifying a war or an occupation to the population, as was illustrated earlier.

The joint Israel–Palestinian call to protect water supplies on February 1 2001 provided the water peace camp with a precious argument. This document, concluded in an Israeli, Palestinian, and American meeting of the Joint Water Committee at Erez Crossing, aimed at keeping the water infrastructure out of the cycle of violence. The document declared that

> The two sides wish to bring to public attention that the Palestinian and Israeli water and wastewater infrastructure is mostly intertwined and serves both populations. . . . We call on the general public not to damage in any way the water infrastructure, including pipelines, pumping stations, drilling equipment, electricity systems, and any other related infrastructure.[9]

Ironically enough, the same political actors putting out such a water peace statement (the Israeli and Palestinian governments) contradicted this statement both in their actions and within other declarations. Damage to water infrastructure serving Palestinian towns was carried out by the Israeli military in Salfeet in the fall of 2000 and in Nablus and Ramallah in 2002, to name but a few examples. But the fact that both governments agreed to issue this joint statement shows that they are bowing to another pre-existing hegemonic concept: that of water as a basic human right. A fertile soil thus exists for the concept of water peace to take root. The possibility therefore exists for the water peace concept to eventually replace the water war concept in its hegemony.

5. WATER WAR VERSUS WATER PEACE: A WAR OF POSITION

The international water community is now engaged in a war of position according to Gramsci's definition. It aims to reverse the emergence of a hegemonic concept – "the competition for water will lead states to wage war to each other" – and to replace it with another: "the competition for water will lead states to cooperate with each other." Whether such a war of position succeeds or not is independent of the truthfulness of the statement. Investing in slogans, posters, and various other tools of propaganda may be very successful in the short term at least.

The research community can also choose the more arduous task of facing the history of the construction of the water wars concept. Analyzing the other existing hegemonic concepts that provided the soil in which it sprouted and grew, and deconstructing many ideas that are readily held as self-evident at the moment by most professionals involved in water development would be much more useful. Such a process may prove painful at times and may not lead to the uncritical adoption of the water peace theory as a new hegemonic concept. It will have a much more lasting impact though. It will broaden issue definitions and allow the consideration of many options that seem irrelevant to many at the moment. Several case studies should address these issues:

- How did the concept of water war originate?
- What underlying beliefs made its emergence possible?
- Who propagated it?

- By which means?
- Who is benefiting from it?

Similarly, it should address the same questions concerning the competing water peace concept. This will allow researchers to identify the mechanisms whereby such ideas are used. It will allow them to understand how they have narrowed the perceptions of the problems and of the possible solutions. Finally, it will allow a more holistic understanding of the water competitions and conflicts as well as of the potentially useful solutions.

The fields of political science and history can contribute to this effort because they provide the tools to investigate such questions. They offer the resources to challenge the hegemonic concepts that limit the vision of the water development professionals. They question the political and conceptual paradigms in which engineers, hydro geologists, and politicians have evolved. They allow the identification of many conflicts and competitions that were not previously taken into consideration simply because their existence and relevance were not even perceived. They therefore empower any social actor who strives to achieve water peace.

NOTES

1. The concept of virtual water has been developed by Tony Alan to describe the water necessary to produce a given quantity of food. Importing this food is the virtual equivalent of importing that water to grow the food locally. Tony Alan has thus advocated the use of water in sectors other than agriculture in order to generate added value that can be used to import much greater quantities of virtual water.
2. See the special Water Crisis series in the *Haaretz* throughout February–April 2001.
3. Interview with the Israeli Water Commissioner, Tel Aviv, March 4 2002.
4. Interview with Jeni Colbourne, Thames Water Company, 2002.
5. Interview carried out by the author, Falamiah, West Bank, 1998.
6. A good illustration of this phenomenon appears in Annette van Edig (May 1999), *Aspects of Palestinian Water Rights*, Ramallah Center for Human Rights Studies, Ramallah. Although the study is very rigorous as a legal analysis, some of the factual information is invalidated by field observations. (See pp. 46–9).
7. Examples of popular water war literature include M. de Villiers, *Water Wars: Is the World's Water Running Out?* (London, Weidenfeld and Nicolson, 1999), and John Bulloch and Adel Darwish, *Water Wars* (London, Victor Gollancz, 1993).
8. As all hegemonic concepts, this is another distortion of the reality which most citizens accommodate by automatically downgrading one of two states involved in a conflict to the status of dictatorship, no matter whether its leader was elected or not.
9. Joint Israel–Palestinian Call to Protect Water Supply, Jerusalem, February 1 2001, website of the Israeli Ministry of Foreign Affairs, http://www.mfa.gov.il

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