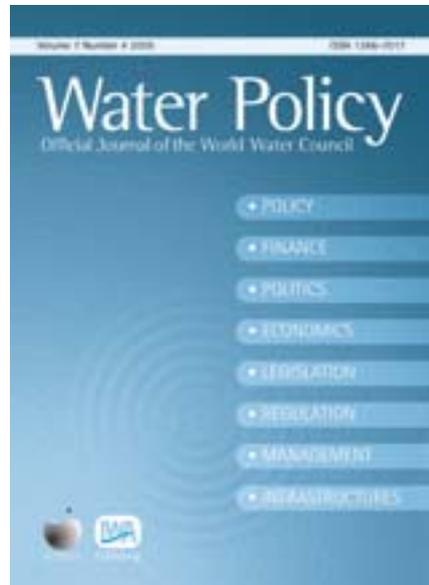


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Spiritual understandings of conflict and transformation and their contribution to water dialogue

Aaron T. Wolf

*College of Earth, Ocean, and Atmospheric Sciences, 104 CEOAS Administration Building, Oregon State University, Corvallis,
OR 97331–5506, USA. E-mail: wolfa@geo.oregonstate.edu*

Abstract

Water management is conflict management, and has been since time immemorial. And yet models of conflict management of recent times regularly ignore the balance between rationality and spirituality that has prevailed in our thinking for millennia, relying almost entirely on the measurable. While this focus has been helpful, perhaps some part of the answer lies not in the world of rationality at all, but rather in the spiritual, ethical and moral dimensions of water conflict resolution, and that re-acknowledging the balance between the rational and the transcendent offers constructs for understanding and working with process. Acknowledging the balance between the quantifiable and the transcendent allows both for more coherent models of conflict transformation and for direct applications to water negotiations.

This paper begins by setting the context of current understanding of water conflict and cooperation, then by documenting the geography of the ‘Enlightenment Rift’ – the process by which the global West/North has separated the worlds of rationality and spirituality – and the impact of this rift on ideas related to natural resources management. We continue with a discussion of the current clash of world views, and conclude with a section describing how the two world views might gently be interwoven, for example within a fairly universal construct of four worlds of perception, and how this construct might be employed within the framework of more effective water conflict management and transformation.

Keywords: Conflict management and transformation; Enlightenment rift; Rationality and spirituality; Shared waters; Transboundary water

Introduction

According to tradition, Moses experienced four levels of holiness on his path to receive the Law on Mount Sinai¹. After 3 days of intense spiritual preparation, all the Children of Israel were brought

¹ Described by R. Bachya Ben Asher, a Spanish commentator (1263–1340), who first applied the Four Worlds into a Torah commentary, based on four simultaneous yet sequential levels of meaning of text: plain, *midrashic* (*aggadic* or homiletic), philosophical and kabbalistic exegesis (Ben Asher, 1998).

together to the foot of the mountain, atop of which thunder, lightning and blasts from the ram's horn signaled God's presence (Exodus, 19:16–25). There, Moses had an altar built and sacrifices made amongst the nation as a whole. This experience of physical construction and sacrifice with the entire nation represents the first level – that of physical holiness.

At God's command, Moses then ascended higher, with only Aaron, his sons, and seventy elders, all of whom, 'beheld God, and they ate and drank' (Exodus, 24:11). Commentators² suggest that their joy was as great as the utmost pleasure, and that they ate and drank in grateful celebration of this divine privilege. This level of the mountain itself, then, represents the second level – emotional holiness.

God then told Moses to go on alone to the cloud-covered mountain where, in a moment of pure consciousness, Moses received the Law in its entirety: 'Ascend to Me to the mountain and remain there, and I shall give you the stone Tablets and the teaching and the commandment that I have written, to teach them' (Exodus, 24:12). The focus on the Law being transmitted to Moses to 'teach them' brings him to the third level – intellectual, or intuitive, holiness.

Finally, the thickness of the cloud itself (*'av ha'anan*), the Divine presence at the summit of Mount Sinai, represents the fourth level – spiritual holiness.

Once the Children of Israel settled in the Land of Israel, this path through the four levels of holiness was recreated in the physical structure of the holy Temple in Jerusalem, corresponding to the gate of the Temple Courtyard, the interior of the Courtyard, the inner chamber of the Temple and, finally, the Holy of Holies, the seat of the Divine presence³.

Thus, the Temple was, in effect, a permanent re-creation of the Sinai experience, which was intended to remain with the Jewish people throughout their history (Scherman, 1993: 405).

With the destruction of the Temple in 586 BCE, and with prophecies of destruction of its successor and four lengthy exiles, it became clear that Jewish history would outlast this physical recreation of the path to revelation. In what would become one of the most inspired and democratizing acts in theologic history, the Sages of the Great Assembly inscribed this path to spiritual fulfillment within the structure of the Jewish prayer service, essentially crafting the service as a guided meditation through the Four Worlds – an inner journey through the courtyards of the Temple and ascension of the face of Sinai.

The universality of the four worlds

This section describes in more detail the path that Moses traveled – the apparently universal idea that we might at any time experience the world around us through any of four distinct lenses, or perceptual states: a physical state, that we might just as well refer to through its Meso-American icon (a serpent); an emotional state (or jaguar); an intuitive, or knowing state (whose icon is a hummingbird); and a spiritual or connected level (an eagle).

Classic Western processes of Alternative Dispute Resolution (ADR) tend to focus on interests, generally thought of in terms of quantifiable parameters. By focusing on the benefits of cooperation, a claim

² Notably Onkelos (c. 90 CE) and the Ramban (R. Moshe ben Nachman, 1194–1270). See Scherman (1993, revised 2001), p. 443.

³ Interestingly, Angkor Wat temple in Cambodia has a similar structure, moving inward and upward through three worlds, with the empty space at the top representing the fourth.

often made by practitioners is that ADR works because the mediator can help parties construct agreements that meet the needs of the parties: ‘people agree when it is in their interest to agree’. But how does one know it was in the parties’ interests to agree? The only proof is tautological: they agreed.

By focusing rather on process, tapping into the four perceptual states and, more importantly, the transformation that takes place when moving through and between them, we feel we can more readily engage the healthy energy of conflict and work towards transformation of individuals, groups and complex systems.

Why four states? In many faith traditions, as well as in secular fields as varied as psychology and systems theory, our relationship to the world around us is described as being experienced through these four types of perception, very generally described as physical, emotional, knowing and spiritual. This construct seems particularly useful for our purposes, where engaging conflict regularly crosses cultural as well as political boundaries. One notes the near-universality of the construct, what [Smith \(1976\)](#), in summarizing religions’ common vision, calls the ‘levels of reality’ (see [Figure 1](#), which shows Smith’s levels: body, heart, mind and spirit).

Psychologists will recognize [Maslow’s \(1990\)](#) hierarchy of needs in the Four Worlds (physiological, safety/love/belonging, esteem and self-actualization), but those familiar with the mystical traditions of the globe will find much more ancient roots. In Judaism they are seen in Kabbalah in the worlds of *Atzilut* (emanation), *Beriyah* (creation), *Yetzirah* (formation) and *Assiyah* (actualization), and applied through the structure of the daily prayer service – a guided meditation based, as we’ve seen, on the construct of the Temple in Jerusalem, which itself was built to emulate Moses’ experience of the levels of holiness during his ascent of Mount Sinai. They are described in the Buddha’s teachings on the Four Establishments of Mindfulness, characterized as ‘tools for transformation and healing’ ([Nhat Hanh, 1990](#)), and in the Four *Jhannas* – levels achieved in Buddhist meditation that correspond to ‘the four great levels of the heavenly realm’ ([Mills, 1999: 103](#)); in Sufi mystical experience ([al Jerrahi, 1999](#)); in the Shamanic Four Levels of Perception ([Villoldo, 2006](#)); in the Toltec Four Agreements ([Ruiz, 1997](#)); and in the Native American



Fig. 1. Smith’s Universal Construct. (Source: [Smith 1976](#)).

Sacred Tree (Bopp *et al.*, 1984). In fact, the construct is so widespread, that both Shachter-Shlomi (2005) and Villoldo (2006) suggest that our biology is actually hard-wired to experience the world through these four lenses, through the reptilian, limbic, cortex and unused portions of our brain, respectively.

In more recent constructs, we also find echoes of these states in scales well beyond that of the individual, for example Rothman's (1989) ARIA model for conflict resolution (adversarial, reflexive, integrative, action), which describes the potential for transformation in a negotiation or small group setting, or Scharmer's (2007) Theory U, a double four-fold matrix, to help understand the evolution and projection of institutions towards a future that we can learn to co-create.

Understanding these constructs and their universality leads to tremendous possibilities in the design and implementation of processes, training, collaborative learning and intentional management. It allows for a structure that moves through different lenses and perceptions, while tapping into what seems to be a fairly universal set of needs. Finally, it allows a focus on transformative processes, to bolster the only partially successful historical emphasis on quantifiable benefits⁴.

Understanding the Four Worlds

The most effective path to understanding the Four Worlds depends on how one learns best. If visual models help, take a look at Figure 2.

If one looked down on the figure in a map view, each state would be within the other: each expands out from, and incorporates, the previous state. Yet from the side, they also rise, not because higher is better but because higher is higher. (In some traditions, each state is associated with different chakras, each ascending from the one before. In a Buddhist construct, each can be 'felt' in a different part of the body in ascension.)

A key point to understand about the worlds is that they all exist at the time, simultaneously. One intuitive example might be seen through a piece of bread, which exists most recognizably on a physical plane or, if one is hungry or the bread is particularly good, one perceives the bread emotionally. One can also intellectualize the bread and consider its components and interaction with our body to provide sustenance.

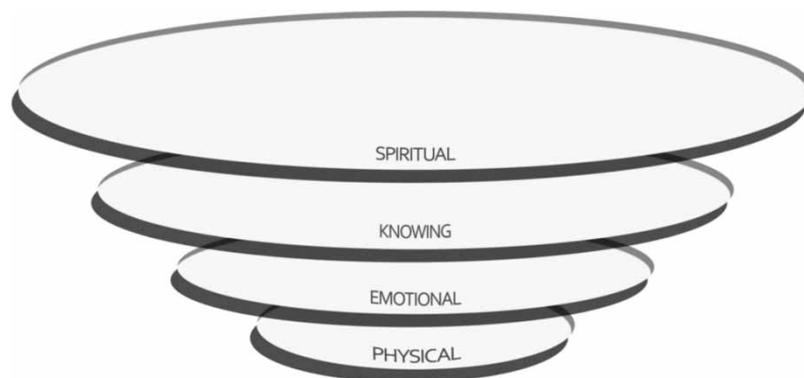


Fig. 2. The worlds in ascension.

⁴ Manfred Halpern (1924–2001) developed his theory of transformation as the root of both personal and political change, based largely on Sufi understandings, as applied to international relations. He left an unfinished manuscript on the topic as his Princeton class notes for Politics 325, posthumously published as Halpern (2009).

Finally, one might say a blessing over the bread, removing its ‘profane’ covering, so that it now becomes a source of spiritual nourishment. While these four levels of perception can be thought of separately, and might occasionally be achieved in sequence, they should not be considered as distinct or linear. The bread, for example, exists simultaneously in all four states; it is up to us to determine through which lenses it will be perceived. Nonetheless, understanding the Four Worlds in sequence is often useful, if not critical. Someone desperately hungry, for example, may have difficulty taking the time and effort to intellectualize anything when offered a piece of bread.

Another point is that one state is not ‘better’ than any other; the object is not to get to the ‘higher’ states; each state has its place and vital role. Even the most focused meditator, prayer, rock-climber or fly-fisher, experiencing near-transcendent clarity, needs to make sure the physical body is nourished.

Four states, four scales

In Ken Wilbur’s (2000) ‘Theory of everything’, the core of his construct is built around Huston Smith’s (1976, revised 1992) summary of four ‘levels of reality’, in what he refers to as body, heart, mind and spirit (see Figure 3). Wilbur superimposes a quadrant, where each quartile represents a

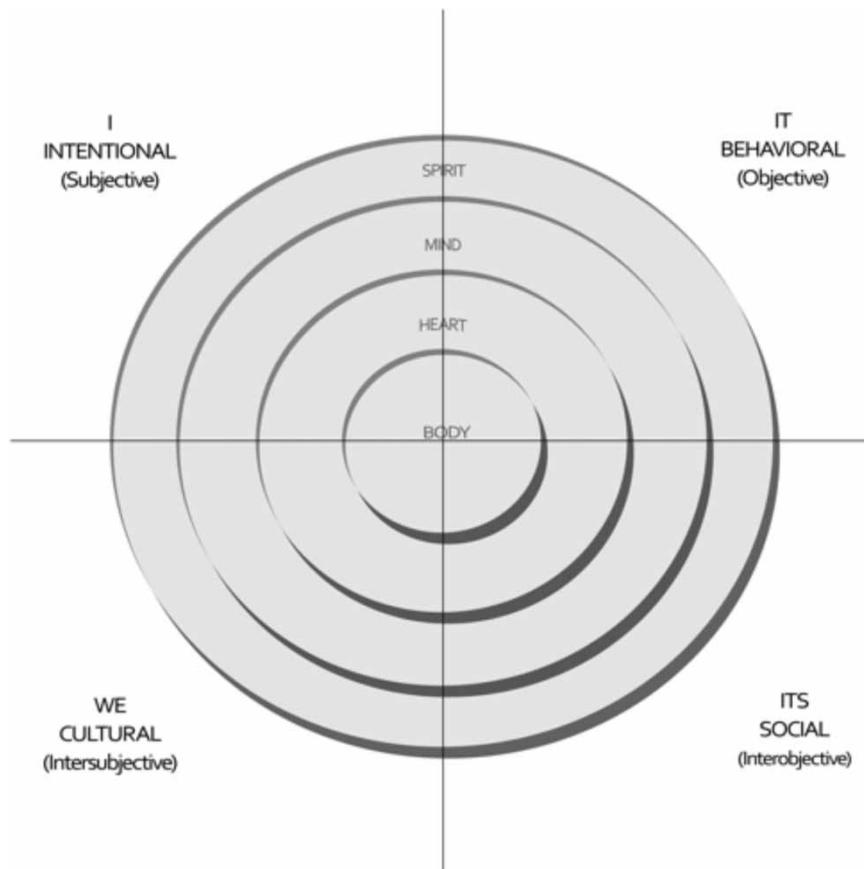


Fig. 3. The theory of everything. (Source: Wilbur, 2000).

different scale of humanity and worldview. The top half represents the individual, while the bottom half represents the collective; the left half is interpretive or unbounded, while the right half is empirical and positivistic (see [Figure 3](#)), what we might think of as the right- and left-brain, respectively.

The top left (individual-interpretive) quadrant, Wilbur calls ‘I’, representing internal consciousness, and he identifies philosophers who work at this scale, ranging from Freud to Buddha. In the top right quadrant (individual-empirical), which he calls ‘it’, philosophers including B. F. Skinner and John Locke work. The bottom right (collective-empirical), which he calls, ‘its’, includes Karl Marx and systems theorists. In the bottom left (collective-interpretive), called ‘we’, Wilbur includes Thomas Kuhn and Max Weber.

Similarly, in the following text, we describe how a four-fold path might apply to each of four scales to help inform transformative processes at each. Our scales include (see [Figure 4](#)):

- intrapersonal – what happens within each of us as we are engaged in processes of conflict and how we can better guide our intentions;
- intrapersonal – pairs and informal small groups, and how to use the states to engage more effectively;
- group settings – generally the traditional realm of classic ADR, the negotiation or discussion process; what happens ‘in the room’;
- complex systems – the ‘fuzzy’ processes with huge uncertainties, where institutions evolve ponderously and transformative strategies include such imprecise tactics as ‘managing by intention’ and being guided by the ‘precautionary principle’.

Just as the perceptual states grow out and incorporate those before them, so too do the scales at which we work. Individuals make up groups who contribute to complex systems and, just as with the states, things get vaguer and ‘fuzzier’ as we move outward ([Figure 5](#)). When we’re at the scale of regional ecosystem recovery or global climate change, neither the problems nor the solutions can be measured precisely, yet processes with echoes of the perceptual states can be tapped into to help with our understanding and approaches.

Reconnecting process with spirit⁵

So how can the process from conflict to cooperation be enhanced? To begin our understanding, we might drop our scale of analysis from the macro to the micro. Along with describing global and regional trends from an abstract geopolitical perspective, there is also the process that occurs ‘in the room’. At the end of the day, negotiations are about people and relationships, not solely about geopolitics and economic interests. Which begs the question: are negotiations rational? Or is something more going on in the room, something connected more to energy and transformation?

To gain insight into these questions, it is worth looking at the values and philosophies inherent within the negotiating context.

⁵ This section draws from [Wolf \(2008\)](#).

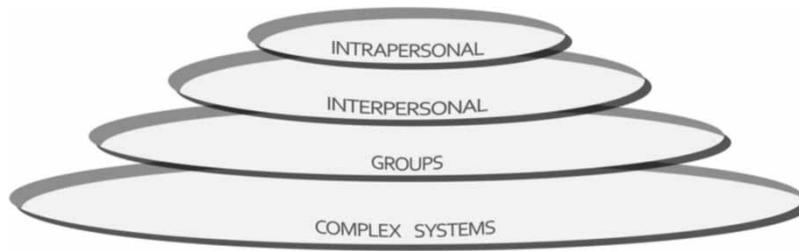


Fig. 4. Scales of governance.

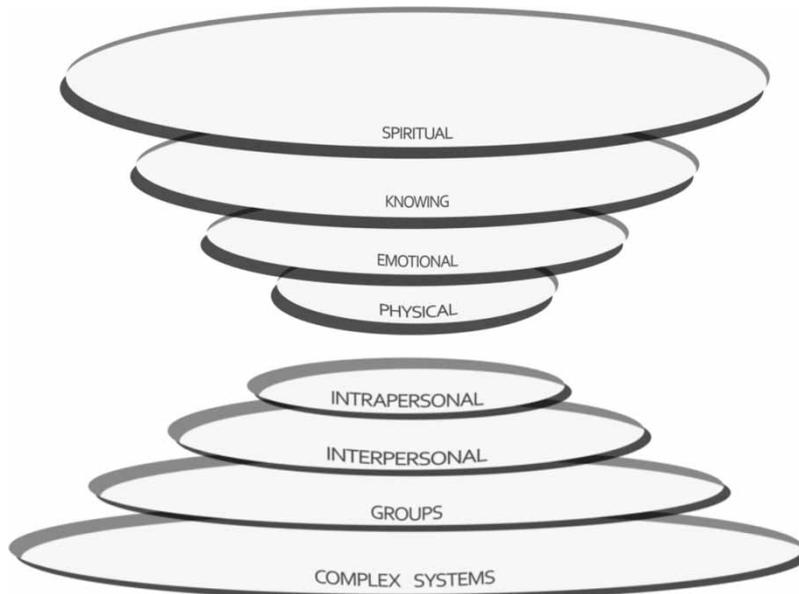


Fig. 5. Four worlds, four scales.

The enlightenment rift: when north/west meets south/east⁶

The Enlightenment of the 18th century left a profound rift between the worlds of spirit and of reason, one with intense implications for today's clash of ideas. In temporal terms, it suggested that day-to-day considerations should be gauged in rational, 'objective' concepts, while the world's spiritual dimension should be considered separately, in the evening at home or within one's Friday, Saturday, or Sunday community (Martin, 2007). Over time, 'rationality' dictated the structure of subsequent paradigms,

⁶ I acknowledge the wild over-generalization involved in dividing up the world between the global North/West and the South/East. This construct should be understood as infinitely more porous and ephemeral than dichotomous, but roughly follows the geography of Hall's (1976) 'high context' and 'low context' cultures (critiqued though the model has been). In very general terms, the former includes Europe and much of the non-indigenous Americas, while the latter includes most of Asia, Africa and the Middle East.

from economics to science to modernity, to where today we in the North/West are consistently satisfied to ask the ‘what’ without the ‘why’, at least in public discourse. We talk comfortably of economic growth rates, for example, without an accompanying discussion of what simply creating and owning more stuff does to our soul. We are able to put the emphasis in debates over crime disproportionately on the value of punishment and retribution, and regularly less on the potential for the individual and his or her community for rehabilitation (see, for example, O’Connor *et al.*, 2006). We regularly turn to benefit–cost analyses as decision-making tools, where all factors must be reduced to economic value, explicitly excluding often profound, but intangible, considerations.

But the idea of separating out rationality from spirituality is a fundamentally North/West construct. As Smith (1992) eloquently puts it, ‘The modern West is the first society to view the physical world as a closed system’ (p. 96), whereas much of the thinking in the global South and East often retains its integration of rationality and spirituality. As models, consider Figure 6 for example, which shows frameworks from two different spiritual traditions that illustrate the idealized relationship between self and community, between justice and mercy, and between boundaries and expanse.

Figure 6 models three of the ten Kabbalistic ‘*sefirot*’, or spheres of Divine attributes (see Scholem (1965), Matt (1997) and Green (2004) for accessible introductions to Kabbalah). These three show a balance between *din* (the attribute of justice⁷, boundaries, self) with the *sefirah* of *chesed* (the attribute of ‘lovingkindness’, concern for the other, mercy). Within this tradition, these two attributes remain in balance: one cannot exist without the other ... but not quite. In this balance of Divine attributes, the *sefirah* of *chesed*, lovingkindness, is always modeled just a touch higher, connoting that that attribute takes precedence in any conflict between the two. (Any parent understands this construct intuitively. Raise a child with justice alone and the result will be an unfeeling bully. Raise him or her with only lovingkindness, and the child will become unbearably spoiled and self-centered. And, truth be told,

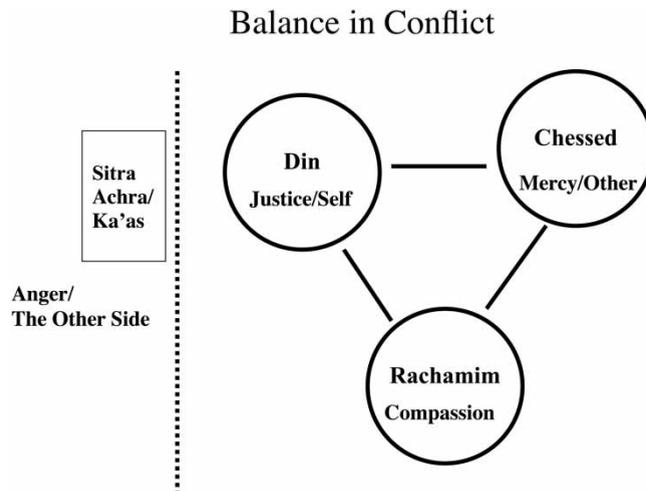


Fig. 6. The Kabbalah of conflict.

⁷ ‘Justice’ is meant here in the strict, bounded sense, and is not meant in the same vein as what one might refer to as being a more holistic ‘restorative justice’.

when we're ever conflicted between which of the two approaches to take with our loved ones, we generally can't help but show some favor to mercy.)

As the map of the *sefirot* shows, the balance of *din* (justice) with *chesed* (mercy) is manifested in the *sefirah* of *rahamim* (compassion). The attribute of *rahamim* is very explicit in what is meant by 'compassion', suggesting a precise integration of consideration for both justice and mercy, for self and community, for boundaries and expanse. The root of *rahamim* is the same as for *rehem*, womb, giving us a very clear allusion to what is meant: a mother is able to give not only nourishment, but her very life force to her unborn child (ultimate lovingkindness), but is able to do so only if she takes care of her own health and needs.

The message of the construct has relevance for many of the grand issues of the day. Do we pursue justice or mercy in our lives and politics? Shall we be concerned with individual rights or responsibility to our community? Modernity or post-modernity? Free market or safety nets? Right or left? Self or other? The answer given by this understanding to all these choices is, 'yes, in exquisite balance'. The dichotomies are false, as is the apparent division between rationality and spirituality.

This balanced construct exists fairly universally and can influence quite a lot in respect to approaches to resource allocation, negotiations and understanding of relationships. The unity of a balance of self and other, light and dark, can be seen in the *Taijitu*, the traditional Taoist symbol for *Yin* and *Yang*. In a Christian construct, the triad of justice, lovingkindness and compassion has been described through the Trinity of Father, Son and Holy Spirit, and some Christian Kabbalists make these comparisons explicit. In Islam, *Al-Hakam* (the Judge), *Ar-Rahman* (the Merciful) and *Ar-Rahim* (the Compassionate) are three common names amongst the ninety-nine names of Allah, and [Abou El Fadl \(2004\)](#) describes Islamic processes for 'institutionalizing mercy and compassion in social interaction'.

So, to generalize, the heavy (over-)emphasis on rationality and the rights of the individual as opposed to inclusion of spirit and the needs of the community is disproportionately a North/West phenomenon, associated primarily with the non-Asian developed world. The global South and East often retain a more integrated view of issues of the individual with the community or one's spirituality with one's rationality. These two profoundly contradictory worldviews – the North/West's dichotomous views of rationality and spirituality, justice and mercy, in stark contrast to the South/East's holistic, integrated balance – clash regularly and intensely across the world stage, from foreign policies to expectations of immigrant communities to dynamics in the United Nations. In other fora, one might note the implication this geography has on the current 'clash of civilizations', but one can use water as a microcosm of these larger issues.

Parting the waters: The enlightenment rift and water ethics

The geography of this post-Enlightenment rift is, well, enlightening. [Figure 7](#) shows the geography of one component of this issue, through flows of water-related foreign assistance, primarily from the developed to the developing worlds. What this figure illustrates is the extensive interface between very different value structures.

In recent decades, for example, the global North/West has approached international water management from an increasingly economic framework, most notably through the 1992 Dublin Principles, which state that: 'Water has an economic value in all its competing uses and should be recognized as an economic good' ([ICWE, 1992](#): Guiding Principle No. 4). This was the first explicit recognition of water as an economic good, and this principle is often found quoted in literature that has ensued

Sources of Funding For Water-Related Projects in International Basins

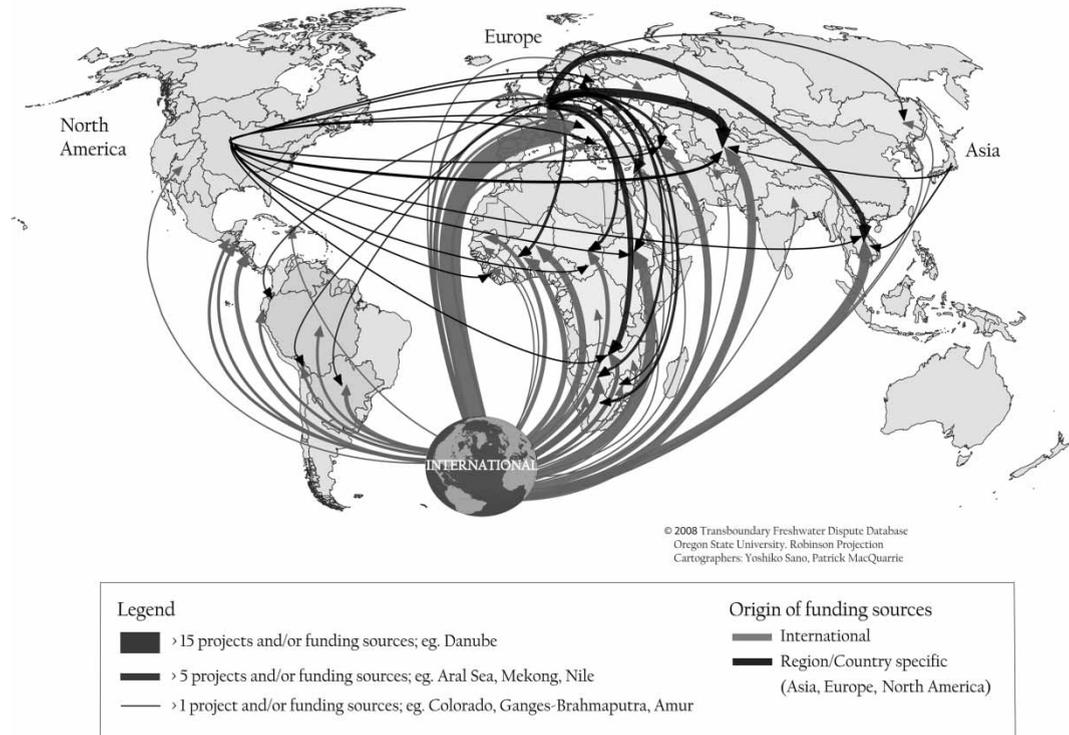


Fig. 7. Sources of funding for water-related projects in international basins.

since its establishment. Agenda 21, which emanated from the Rio Conference on Environment and Development in June of 1992 echoed this theme, and the World Bank and other development banks have increasingly been urging conflict resolution through moving from thinking of water as a zero-sum commodity to negotiating over the benefits of water, a positive-sum commodity that can be enhanced and quantified through economic principles (see [Delli Priscoli & Wolf \(2008\)](#) for a history).

Yet these economic principles, so prevalent in the global North/West, and encouraged through the North/West-sponsored development agencies and banks, explicitly contradict local and indigenous practices throughout the developing world. For example, different Islamic legal tenets apply to different water sources, basically divided by whether the water is ‘provided by God’ (i.e. from a natural surface or groundwater source which is available year-round) or whether it is ‘provided by man’ (i.e. the human labor which creates a cistern or the attendant canal system). ‘God-given’ waters may not be bought or sold, and their use is available to all equally⁸. To many, the idea of buying and selling water is both repugnant (like ‘buying and selling one’s children’, one interviewee suggested to me, quoted in [Wolf \(2000\)](#)), and contrary to the tenets of Islam ([Faruqi et al., 2001](#)).

⁸ The famous scene in *Lawrence of Arabia*, which seems to have shaded the perceptions of many *vis à vis* Middle East water tensions, in which a hapless traveler is shot for drinking from another’s well simply would not have happened. The well and its water would have been accessible to anyone.

Process and the Four Worlds

Thinking of negotiations less in terms of rational interests and more in terms of transforming energy allows us to center on the process of ‘transformation’ in negotiations: the point at which parties move from thinking of themselves as representing countries or political bodies to perceiving more broadly the needs of all stakeholders within a basin. These are critical junctures in negotiations, where movement from ‘rights-based’ to ‘needs-based’ to ‘interest-based’ to ‘equity-based’ negotiations suddenly becomes possible. In international basins, as noted above, this transformation may normally take years or even decades, during which time political tensions are exacerbated, ecosystems go unprotected and water is generally managed, at best, inefficiently. This negotiation transformation, as noted above, has a corollary in spiritual transformation. Every spiritual tradition in the world is devoted to a very similar process, which is to guide individuals to move from thinking about their needs as individuals (their immediate wants and desires) to addressing more of their obligations to society, humanity and other issues larger than themselves. In this setting, conflict can be seen less as a displacement between rational sets of interests, and more as a rift in the fabric of community, with the attendant obligation for healing.

How might the Four Worlds be harnessed for water negotiations? This section describes how each of the ‘worlds’ can be seen in different stages of water conflict and conflict transformation.

There are, of course, no ‘blueprints’ for water conflict transformation – [White \(1969\)](#) reminded us long ago that ‘every basin is unique’. There do seem to be, however, general patterns in approaches to water conflict which have emerged over time. ‘Classic’ disputes between, for example, developers and environmentalists, rural and urban users, or upstream and downstream riparians, suggest zero-sum confrontations where one party’s loss is another’s gain, and where confrontation seems inevitable. Yet such ‘intractable’ conflicts are regularly and commonly managed or transformed, as creative thinking and human ingenuity allow solutions which draw on a more intricate understanding of both water and conflict to come to the fore.

Over time, this process has been formalized a bit, and defined as one path to the transformation of water disputes from zero-sum, intractable disputes to positive-sum, creative solutions, centering on a migration of thought generally through four stages (described in [Delli Priscoli & Wolf, 2008](#); and [Wolf, 2010](#)). Note that all stages exist simultaneously, and need not be approached in sequence, and no stage need be achieved necessarily for ‘success’. In today’s world, many agreements never move beyond the first or second stage, yet are tremendously resilient, while a few have achieved the fourth stage and are fraught with tension. Nevertheless, like any skill, it is useful to understand the structure of an ‘ideal’ path, in order to perfect the tools required for any individual situation. Note too that these lenses and approaches have, as noted above, equal applicability to conflict at all scales, from the intrapersonal through the interpersonal, small groups and complex systems. They apply as well to discussions between individual users or groups of disparate stakeholders as well as to those between countries.

The generalized path described here (and as the structure for a skills-building workbook in [Wolf, 2010](#)) is structured around an understanding of each of the four stages, through any of four perspectives, presented in the following stages:

Stage I. Assess the current setting: Basins with boundaries. In Stage 1, in its initial adversarial setting, regional geopolitics often overwhelm the capacity for efficient water resources management. Metaphorically, the political boundaries on a map at this stage are more prevalent than any other boundaries, either

of interest, sector, or hydrology. Dialogue is often focused on the past, based on the rights to which a country or state or province feels it is entitled, and a period of expressing pent-up grievances can be necessary. As a consequence of these initial tensions, the collaborative learning emphasis is on trust-building, notably on active and transformative listening, and on the process of conflict transformation. By focusing primarily on the rights and interests of countries, states, and/or provinces, inefficiencies and inequities are inevitable.

Once stakeholders are brought to the table, this stage generally involves classic hydropolitical assessments of the current setting within a basin, including biophysical, socioeconomic and geopolitical parameters. The processes for assessing many of these aspects are well-defined (e.g., hydrologic studies, or benefit–cost analyses of development alternatives), while many are less quantitative, but no less critical (e.g., social impact statements, or assessments of indigenous traditions of management).

At this stage, stakeholders often think *nationally*, or as a state or province or other political constituency, and are focused on their *rights*, and may be looking disproportionately backwards, if only to be able to vent and perhaps address perceived grievances. Although understanding the baseline of any basin may take decades, if it is possible at all, it is not necessary to agree to all data before greater cooperation takes place – these assessments or training workshops can be used in and of themselves as confidence-building measures to move to the next stage, even as greater mutual understanding of the basin is being created.

Stage II. Changing perceptions: Basins without boundaries. As the adversarial stage plays out, occasionally some cracks can be seen in the strict, rights-based, country province/state-based positions of each side (although in actual water negotiations, this process can last decades). Eventually, and sometimes painfully, a shift can start to take place where the parties begin to listen a bit more, and where the interests underlying the positions start to become a bit apparent. In this Stage II, a reflexive stage, negotiations can shift from rights (what a country province/state feels it deserves), to needs (what is actually required to fulfill its goals). Conceptually, it is as if we have taken the national, provincial/state boundaries off the map and can, as if for the first time, start to assess the needs of the watershed as a whole. This shift, from speaking to listening, from rights to needs, and from a basin with boundaries to one without, is a huge and crucial conceptual shift on the part of the participants, which can be both profoundly difficult to accomplish and absolutely vital to achieve for any movement at all toward sustainable basin management. To help accomplish this shift, the collaborative learning emphasis is on skills-building, and we might approach the (boundary-less) basin by sector rather than by nation.

At this stage, the attention shifts from past to future, as stakeholder examine each others' interests beyond positions. A process of social learning sets in. Parties can begin to ask 'what could be?' rather than 'what was?' or 'what is?' The metaphor for this stage is a basin without borders where, rather than rights, there are needs; and rather than thinking of national issues, we might look instead to how different sectors might be developed basinwide.

This shift is transformative: it is the point at which parties move from thinking of themselves as representing countries or states/provinces to perceiving more broadly the needs of all stakeholders within a basin (whether or not they like these needs). Parties begin to understand the needs of the other and thus the requirements that must be met if agreements are to be reached.

Stage III. Enhancing relations and benefits: Beyond the river. Once participants have moved in the first two stages from mostly speaking to mostly listening, and from thinking about rights to needs,

the problem-solving capabilities that are inherent to most groups can begin to foster creative, cooperative solutions. In this Stage III, an integrative stage, the needs expressed earlier begin to coalesce to form group interests – the ‘why’ underlying the desire for the resource. Conceptually, we start to add benefits to the still-boundary-less map, and in fact to think about how to enhance benefits throughout the region, often by adding resources other than water, and geographic units other than the basin. In fact, rather than allocating water, we can think about allocating benefits. The collaborative learning emphasis is now on the relationship-building of the group, and we begin to move in ‘benefit-sheds’ rather than being restricted by basin boundaries.

Once the shift has been made from thinking about allocating water to allocating benefits, it is a natural progression to think together about how to enhance the benefits within and beyond the basin. This may be done within the realm of water resources alone: a well-designed dam upstream might, for example, both enhance agricultural production downstream and help protect riparian habitat. But it is often helpful to think at this stage about ‘baskets of benefits’ which may go well beyond water, or well beyond the basin in question (Sadoff & Grey, 2002). Indeed, the most successful cases of building regional approaches to water have gone beyond seeing water as the end to seeing it as a means to achieve other goals, such as socio-economic development and reduction of fears of floods and drought. Energy production and water development are often linked, for example, as are afforestation programs, transportation networks and environmental protection. Naturally the transaction costs of including more sectors than water go up exponentially, but so do the potential benefits. This means bringing in actors beyond the water sector and expanding the basket to be considered.

Stage IV. Putting it all together: Institutional and organizational capacity and sharing benefits. Finally, although tremendous progress has been made over the first three stages, both in terms of group dynamics and in developing cooperative benefits, Stage IV (the last, action, stage) helps with tools to guide the sustainable implementation of the plans and to make sure that the benefits are distributed fairly equitably among the parties. The scale at this stage is now regional where, conceptually, we need to put the political boundaries back on the map, reintroducing the political interest to see that the ‘baskets’ that have been developed are to the benefit of all. The collaborative learning emphasis is on capacity-building, primarily of institutions.

Much though water people like to think in terms of basins or watersheds alone, eventually the borders have to come back on the map – political entities are primarily responsible for their own benefits and sovereignty after all, and it is often hard to sell to their own constituents on an integrated basin alone. The most critical issues at this stage are, ‘how can the benefits be distributed equitably or perceived as fair?’, ‘how can sustainable and resilient institutions be crafted?’ and ‘how are existing institutions and organizations to be taken care of or compensated for any change?’. The first question may require trade or side-payments, while the second and third questions must evoke the best in institutional design. It is important to remember that conflict potential can actually increase during periods or situations of increased benefits. The increase of benefits alone will not assure the mitigation of conflict. This is because parties may realize benefits they never had but they may perceive that the other is getting relatively more benefits than they are getting. Thus the perceptions of fairness and equity, not just the tangible delivery of benefits, are critical.

It is critical not to think of these ‘stages’ as a linear process, in which the further along one is, the better. Most basins ebb and flow back and forth over time, finding the level that meets a particular set of hydro-political needs for a given place and time; there is no ‘right’ set of answers. One might

think of these all existing in parallel ‘universes’ simultaneously, each with its own set of approaches or tools, any of which may be useful at any given time, or conceptually as a helix or set of spheres, rather than strictly linear. The stages are broken apart here only for the purposes of explanation.

Four Worlds of ‘Water’

Understanding this construct may help structure more effective future negotiation processes, as well as skills-building and collaborative learning exercises. Even the word ‘water’ can be understood differently depending on which lens one is viewing it through, and the mediator/facilitator can harness the construct and sequence of the four worlds to facilitate new understanding.

In contrast, we ignore the Four Worlds at our peril. As peace negotiations between Israelis and Arabs commenced in the early 1990s, for example, each side approached the issue of water very differently. From the Palestinian and Jordanian side, the concept of ‘water’ was conceptualized in a very physical sense (people literally did not have enough clean water in some cases for sustenance) or in an emotional sense (control over water as representing larger issues of sovereignty and occupation). From the Israeli side, ‘water’ was constructed intellectually (survival had long been assured, so the challenge was to move, price, treat and store water in the most efficient manner).

These conflicting conceptualizations led to both difficult impasses – water was the last issue concluded in the Israel–Jordan Treaty of Peace – but also to especially creative solutions. In what will no doubt become a classic modification of the tenets of international law, Israelis and Jordanians invented legal terminology to suit particularly local requirements in their 1994 peace treaty. In negotiations leading up to the treaty, Israelis, making the intellectual argument that the entire region was running out of water, insisted on discussing only water ‘allocations’, that is, the future needs of each riparian. Jordanians, in contrast, refused to discuss the future until past grievances had been addressed: they would not negotiate ‘allocations’ until the historic physical and emotional question of water ‘rights’ had been resolved.

There is little room to bargain between the past and the future, between ‘rights’ and ‘allocations’. Negotiations reached an impasse until one of the mediators suggested the term ‘rightful allocations’ to describe simultaneously historic claims and future goals for cooperative projects, and this new term is now immortalized in the water-related clauses of the Israel–Jordan Treaty of Peace.

As for the fourth world, we can see that, throughout the world, native and indigenous peoples see ‘water’ as a holistic, spiritual resource. With the construct of the Four Worlds, we can conceptualize how jarring, to the point of sacrilegious, it can be to approach problem-solving in ‘rational’, economic, concepts.

Conclusions

Shared water resources provide a useful lens through which to describe both the hazards of ignoring the relationship between rationality and spirituality, but also to demonstrate the potential that an integrated approach may offer for effective negotiations and conflict transformation.

As the historically contrasting worldviews of the global North/West and South/East increasingly interact, both within and without the worlds of shared waters, we have the opportunity to heal historic divisions. The history of water conflicts and cooperation suggests that people do come together, even across vociferous divides. And yet the dangers of scarcity-driven suffering and conflict will only

increase with population growth, poverty and global change. Yet as the dangers grow, so too grow the opportunities for dialog and healing.

In 1996, the Episcopal Diocese in Massachusetts shifted its diocese boundaries from political divisions to watershed boundaries. The rationale was instructive:

‘Simply demonstrating that we are all connected by water: rich and poor, urban and rural, upstream and downstream, is a fine place to start. I think the Holy Spirit will take care of the rest’ (MacAusland, 1996)

Water ignores all separations and boundaries save for those of the watershed itself. As such, it offers a vehicle for bringing those who share it together and, since it touches all we do and experience, it suggests a language by which we may discuss our common future.

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