

“Israel is drying, again”: constructing resilience discourses in televised water conservation campaigns

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RESEARCH ARTICLE



“Israel is Drying, Again”: Constructing Resilience Discourses in Televised Water Conservation Campaigns

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ABSTRACT

Water conservation campaigns (WCC) are a common tool for mitigating droughts and water scarcity by encouraging reductions in household consumption. This paper moves beyond examining the impact of WCCs on consumption to look at the ways in which these campaigns discursively construct notions of water resilience. By analyzing eight televised WCCs produced by the Israel Water Authority from 2008 to 2018 in response to recurring droughts, this paper shows how discourses of resilience are audio-visually and symbolically constructed and represented to the public. The results indicate that a variety of opposite and competing discursive strategies were used in these campaigns: motivational, instructive or informative, fear/hope, nationalistic/individualistic and eco-centric/anthropocentric. The longitudinal comparison reveals how the discourse of water resilience evolved over the years from resilience by *resistance* to *transformation* and *adaptation*, confined to depolitical ethical-individual behavioral change while ignoring government responsibility, systemic social-environmental causes of the problem, and climate change.

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Introduction

Intensified droughts and frequent water shortages, coupled with the threats of climate change, require water management bodies (e.g. governments, utilities companies) to use various methods and policies to reduce water consumption (Katz et al., 2016). These include infrastructure maintenance to reduce loss, increasing efficiency through water-saving technologies, economic instruments, regulation, and public communication and education initiatives (Boyer et al., 2021). Water conservation refers to reduction in water use or loss and reflects a paradigm shift from supply management to demand management (Boyer et al., 2021). Water conservation campaigns (WCCs, Liang et al., 2018) are advertisements and public education operations, often focused at the household level, aiming to change attitudes and behaviors and promote more knowledgeable, sustainable and resilient water usage (Herve-Bazin, 2014). WCCs are symbolically connected to concerns about quantity (floods, scarcity), quality, management and governance, they are aimed at generating interactions and consequently, are forms of risk communication, creating “the ‘factory at risk’ identified by Beck” (Herve-Bazin, 2014, p. 29). Accordingly, studies on WCCs concentrate on their use as risk management initiatives. Katz et al. (2016) discuss the popularity of WCCs in times of shortage or crisis, because they attract less public resistance (compared to direct regulations), can be deployed quickly and cheaply, and may generate long-term changes due to their educational

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nature. Literature on WCCs mainly concentrates on their direct *impact* on consumption (Koop et al., 2019), in comparison to other advocacy tools or in relation to other policies (Katz et al., 2016). Nonetheless, studies have shown that the impact of these interventions are temporary, with consumption reductions only lasting a few weeks. Their use is therefore only recommended when short-term reductions are required (Ehret et al., 2019). Even studies that come from non-commercial perspectives (such as psychology) which compare message types, evaluate WCCs based on their potential to reduce consumption (Ehret et al., 2019; Liang et al., 2018) and not their discursive role. This article, on the contrary, focuses on evaluating WCC's discursive construction of risks and resilience, not their impact on behavior.

This article takes the emerging approach of resilience (McGreavy, 2016) within environmental communication (EC) to examine the discourses of WCCs as responses to drought risks. Originating in ecology, resilience theory explains and analyzes systems' and communities' reactions to, and ability to recover from, external shocks and disturbances (McGreavy, 2016). In an environmental or socio-ecological context, the term is used to promote readiness for specific risks while learning from experience (Cretney, 2014). Central to this thinking is an understanding that resilience is a process and not a state. In this process, social-environmental systems *resist*, *adjust* and *transform* in response to risks, via learning and communication (Matyas & Pelling, 2014), thereby "bouncing-back" to the original state or "bouncing-forward" to a new, improved state (Davoudi, 2012). The *panarchy* model of resilience perceives it as a process of change where repeating environmental stress leads to a re-evaluation of the ways to address it; this creates an evolution in the understanding of the problem and its possible solutions while the implementation of solutions reshapes the system and redefines the problem (Davoudi, 2012).

Resilience is a popular concept in academic studies, including risk management studies and environmental planning (Davoudi, 2012), and has spread widely among practitioners, activists, governmental institutions and NGOs (McGreavy, 2016; Turner, 2014). EC has already established that perceptions of nature and risks are socially, politically and culturally constructed (Bakir, 2010; Cox, 2007). Thus, some studies consider resilience as a discourse which shapes and constrains collective response, (McGreavy, 2016; Moser, 2017), and a few studies have already analyzed news reporting on resilience (Leitch & Bohensky, 2014; Rinne & Nygren, 2016). However, this theory has yet to be used to examine advocacy campaigns or audio-visual datasets like the ones analyzed here. As explained by McGreavy (2016, p. 116), it is important to explore "how might resilience become different?" by expanding the resilience conversation (and research) beyond its technocratic aspects to include cultural and creative representations of resilience.

I offer here a longitudinal example of how water resilience discourse is constructed by televised campaigns. A systematic review of water resilience scholarship (Rodina, 2019) shows that in recent years resilience has been embraced as an approach for water governance that can help address the impact of climate change and other ongoing stressors. Like resilience, water resilience scholarship is fragmented between research fields and primarily concentrated around the physical, infrastructural, and technocratic management aspects of resilience building. Rodina (2019, p. 14) refers to water resilience as an insightful conceptual construct that is "not bound to any one specific discipline [...] but instead speaks to and draws from various science and planning discourses on water." An important theme in the water resilience literature is a growing attention to non-technical solutions, related to behavioral change, and an acknowledgement that building resilience is "fundamentally a sociopolitical and governance challenge" (p. 12). The following analysis builds on these insights, by innovatively looking at the cultural and discursive aspects of Israeli WCCs as water resilience initiatives.

Water conservation programs are recognized globally as crucial in the context of climatic changes, especially in arid and semiarid areas with fast-growing populations (Boyer et al., 2021). Israel is a semiarid country where demand exceeds natural refilling of water resources, influenced primarily by population growth (increasing demand) and climatic change (affecting rainfall and evaporation) (Teschner & Negev, 2013). As part of its efforts to reduce scarcity, Israel has become a global leader in the reclamation and reuse of wastewater (recycling over 85% of its usage) and the

use of desalination, which makes saline water suitable for human consumption and irrigation, and which supplies 80% of national household consumption through large-scale seawater-desalination facilities (Teschner & Negev, 2013). Israel is recognized in the international literature as an exemplary case for the study of water policy discourses (Fischhendler et al., 2015; Menahem & Gilad, 2016; Teschner et al., 2013) and the social-political and environmental ramifications of water policies (Feitelson, 2018; Tal, 2018). While Katz et al. (2016) argues that Israel's reliance on supply technologies has progressively undermined the effectiveness of demand management policies, it remains important to study how a country at the sharp end of the climate-induced water crisis seeks to achieve resilience by managing demand, and how its demand-management discourses evolve in parallel with supply technologies like desalination.

Israel has decades of experience with governmental and nongovernmental WCCs and a cultural sensitivity to water conservation (Siegel, 2015). Between 2008 and 2018, as part of its response to the droughts of 2004–2011 and 2014–2017, the Israel Water Authority (IWA) released nine televised WCCs. The IWA is the national regulator for Israel's water sector, and its campaigns addressed the entire country, without focusing on a specific target audience. The large number of campaigns addressing the same risk over a relatively short period, given the sequence of droughts, provides an opportunity to explore the development of the discourse over the years. Past studies on IWA campaigns only evaluated their successful impact on consumption (Arbel & Ben-Yehuda, 2010; Lavee et al., 2013). This article uses risk and EC modes of inquiry to investigate how these WCCs discursively constructed drought risks and promoted resilience attitudes. Significantly, water management literature regards WCCs as resilience tools (Herve-Bazin, 2014), while the IWA WCCs do not use this specific term. A longitudinal multimodal discourse analysis (MDA, Kress, 2012) has been used to identify the main messages from each campaign, the discursive strategies that were used to communicate resilient water consumption, and their changes over the years.

Public communication campaigns

Water conservation campaigns (WCCs) are a type of public communication campaign (PCC). Rice and Atkin (2013, p. 3) define PCCs as:

Persuasive attempt[s] to inform or influence behaviors in large audiences within a specific time period using an organized set of communication activities and featuring an array of mediated messages in multiple channels generally to produce non-commercial benefits to individuals and society.

Rice and Robinson (2013) give typologies of one-way, two-way and participatory modes of environmental PCC. The one-way group includes *advocacy* campaigns, science advocacy and entertainment education. This article is interested in advocacy PCCs, which, in the case of environmental and health PCCs, share similarities with commercial advertising in their format and strategies (Rice & Atkin, 2013). Advocacy campaigns' strategic messages can be divided into four types: *awareness*, *instruction*, *information* and *motivation* (or persuasion) (Ehret et al., 2019; Rice & Atkin, 2013). These messages focus on "what is the issue/risk?," "what to do?," "how?" and "why?," respectively. Advocacy PCCs are often complimented by supporting tools such as enforcement, legislation or education (Guttman, 2014), but this article only examines the video advertisement outputs of WCCs, not their support activities.

Literature on PCCs draws on multiple communication theories, mainly from advertising, social marketing, agenda setting, message frames and cultivation theory (Ehret et al., 2019; Koop et al., 2019; Rice & Atkin, 2013). Guttman (2014, p. 46) emphasizes that despite the high visibility of televised PCCs they "may not necessarily influence individual behavior, but instead can have an impact by raising issues to the public agenda, or have a cumulative effect." Thus, evaluating PCCs requires considering the complexity of media effects, rather than assuming an immediate direct effect (Guttman, 2014). Similarly, Rice and Atkin (2013) claim that although PCCs are usually measured by their direct effect on pre-defined audiences, they have other unmeasurable influences on personal

perceptions, on policy makers and on the media coverage of the topic. Likewise, they claim that PCCs “often build on existing values” and “tend to reinforce the predispositions” of the target audience by using “loss frames” to “shape the debate” (p. 9). Although they draw on agenda-setting and framing theories and not *discourse theories*, to my understanding, they nonetheless describe the discursive aspects of such campaigns. Building on this claim, I argue that PCCs are about reinforcing and shaping existing discourses.

To move beyond measuring impact and towards understanding how PCCs influence discourse, I suggest using Salmon and Murray-Johnson’s (2013) critical distinction between the *effectiveness* and the *effects* of PCCs. They suggest different conceptualizations of effectiveness, three of which are relevant to our case. (1) Campaigns have *definitional effectiveness* as they show that a certain condition has been accepted as being socially wrong, and that some claim makers or institutions prioritize this issue over others. (2) In contrast to systemic solutions, which are frequently considered partisan or political, PCCs are “perceived as ideologically neutral” (p. 102). Thus, campaigns carry an *ideological effectiveness*, in their ability to conceal their ideological assumptions and politics, which are not debated to the same extent as with other policies. Moreover, Salmon and Murray-Johnson (2013, p. 102) argue that, predominantly, “campaigns are designed to modify personal knowledge, attitudes, intentions, and behaviors rather than to modify the political and economic environments in which those attitudes, intentions and behaviors occur.” (3) PCCs are a form of symbolic politics, and their *political effectiveness* is achieved by demonstrating that a government cares about a specific issue and wants to bring about change via educating, rather than forcing measures. Ultimately, these levels of effectiveness give researchers insight into how the campaign producers perceive the issue, their political agenda or preferred policies. In other words, campaigns reflect the dominant and hegemonic discourses (the ideological and political assumptions of their producers) which define the risk and the desired resilience approach.

Guttman (2015) shows that studies have identified several approaches used in PCC message design and discursive strategies: informative, rational, positive and negative emotional appeals, fear, shock, and humor. In their typology of WCCs from California, Liang et al. (2018) explain that alongside the common informative messages, motivational direct requests and instructive “conservation tips,” campaigns also strategically use social identity and norms. Generally, PCCs seek to influence conduct by promoting positive behavior (e.g. installing efficient devices) or preventing negative behavior (e.g. excessive water use). In that respect, prevention campaigns tend to use *fear* to focus attention on negative practice, based on the assumption that this can motivate action (Rice & Atkin, 2013). Yzer et al. (2013) contest the efficacy of *fear* and note that there is evidence for its effectiveness only when targeting specific groups and not the general population. Similarly, focus group experiments have shown that *any* emotional appeal (including humor) holds some benefits in WCCs, but with a similar impact to *rational* appeals (Liang et al., 2018).

Despite the absence of a critical discourse analysis of WCCs, some studies do provide (limited) information about water discourses used in them. Researchers have shown that a wide range of cultural representations and symbolic values related to water are deployed in WCCs. Herve-Bazin (2014) categorized them into: (1) life, fertility and seed growth; (2) medical and health; (3) purifying and ritualistic; and (4) civilization and human utilities. Hervé-Bazin suggests that WCCs’ risk engagement, by addressing the special relationship between a society and its natural water resources, builds on local values and symbolism, and embraces values that unify society. Furthermore, by encouraging resource protection, WCCs influence people’s capacity to interpret other environmental issues (Herve-Bazin, 2014).

Methods

This article undertakes a longitudinal, multimodal discourse analysis (MDA) to analyze how the discourse of drought risk and resilience was constructed and developed in IWA WCCs from 2008 to 2018. Discourse theory refers to “text” in an inclusive sense, which includes written, but

also visual, verbal and mixed-media sources (Fairclough, 2012). Kress (2012) expands this definition to multidimensional semiotic entities, including gesture, speech, image (still or moving) writing and sound. Multimodality attributes meaning-making to all these dimensions, as a change in one can influence the meaning in another (for example, when gestures add irony to speech). Thus, Kress (2012) offers tools for analyzing discourse that take us beyond the explicit meaning of words. Moreover, “multimodality [...] refuses the idea of the ‘priority’ of the linguistic modes; regarding them as partial means of making meaning” (p. 46). These dimensions of a text are all a result of design and production carried out by its creator to achieve discursive cohesion. Consequently, like any other discourse, this cohesion is open to culturally dependent interpretation (Kress, 2012).

Much attention in EC has been given to written and, more recently, visual discourse, and to how interpretations of environmental images are commonly dependent on the accompanying texts (Hansen & Machin, 2013). But much less attention had been given to audio-visual material and to revealing how audio or sound “anchor or complement the meaning of visual representation of the environment” (Hansen & Machin, 2013). MDA includes all these elements and thus it offers further insight into message design.

Texts are often responses to, engagement with, and critique of previous dominant discourses, creating a historical intertextuality (Fairclough, 2012). Carvalho states that “most studies of media discourse are like snapshots examining some [...] items in detail but covering a short time span” (2008, p. 164). Therefore, she and other risk communication and EC scholars (Bakir, 2010; Hansen & Machin, 2013) have argued that the use of longitudinal analyses is essential for understanding mediation, representation and interpretation. Longitudinal methods, which compare different time periods, help to trace historical and contextual developments and to identify critical moments when new discourses emerge and change (Hansen & Machin, 2013). Thus, the benefit of longitudinal discourse analysis is the ability to examine the life of an issue and its evolution in the public and political spheres (Carvalho, 2008).

Visual EC tends towards abstraction, that is, decontextualization from geographically identifiable images to generic representations of an issue or the environment. As shown by Lester and Cottle (2009, p. 926), in television news reporting this tendency creates a language of images to “bring home the threat and reality” of environmental problems. They identify three categories: *Iconic visuals* represent specific issues, such as a visual of an island representing rising sea levels; *Symbolic visuals* go beyond the literal to represent a larger issue, as in the case of a single smoky chimney to represent industrial pollution; *Spectacular visuals* show the destructive force of extreme weather, and are used not only to simplify complex subjects, but also to incite emotional engagement. This symbolic imagery is similarly used in environmental campaigns by advocacy groups (Doyle, 2011). Medeiros and Gomes (2019) expand this idea of abstract representation to non-photographic *visual metaphors*. They claim that digital animations and illustrations are widely used in environmental documentaries not only to explain and illustrate complex environmental issues, but also to serve as complex metaphors about the current environmental crisis for discursive persuasion.

Based on Kress’s (2012) approach and insights from PCCs and environmental and risk communication studies presented above, the following elements within the videos were analyzed, as each creates meaning and constructs the discourse:

- Video format, structure and genre: advertisement, news, etc.
- Still images: symbolic, iconic, spectacular, informative; colors and objects.
- Moving images: scene editing, composition, perspective, digital animation and visual metaphors.
- Written text: including both content and graphics.
- Music, soundtrack and sound effects.
- Location and set.
- Presenters (speaking) and extras (non-speaking): professional performers, celebrities, animated /non-human characters, public officials, experts, or ordinary people (Rice & Atkin, 2013).

- Speech: including discourse, framing and diction.
- Gesture and body language.
- Message type; and discursive strategies.

This list must not be read as a strict “step-by-step” linear protocol, as discourse analysis has never had a strict procedure. Elements are analyzed, evaluated and annotated simultaneously while their inter-action is examined (Kress, 2012). Likewise, going between modes, items or years of analysis is essential in order to develop a full understanding of the “meaning” of specific elements, the general discourse and its chronological development. Put differently, resilience and risk society theories both argue for a nonlinear understanding of the processes of change. Therefore, critical resilience studies should also offer nonlinear analyses of media texts. Thus, each item was viewed and listened to multiple times while notetaking (with and without sound or visuals) and the categories presented below were developed over time. Videos were transcribed¹ and screenshots were taken to assist the analysis process.

Data collection

With the assistance of the IWA Spokesperson, a list of WCCs produced by the IWA since its establishment in 2007 was identified pre-collection. One campaign (marked in X in Table 1) was inaccessible for collection. Some of the campaigns had complementary radio and printed versions and some included versions in Arabic and Russian, which are not included in the analysis. All the videos were downloaded from YouTube or from the IWA’s website.

General findings

Format, structure and written text

All the videos resemble television commercials in their format, structure and length (12–60 s), and have production qualities identifiable with this genre. Every video starts with the initials of the Governmental Press Office, indicating to the viewer that this is a PCC and not commercial advertising. Some videos include written text or figures to emphasize speech, while the 2017 videos only use written text without spoken words.

All items end with a still image presenting the official campaign slogan. Except in two campaigns the fonts have a reflection effect as if the text lies on water. The closing images were categorized and divided into two designs: (1) *Red-Black* (Figure 1) group includes five campaigns with text in red (slogan) and white (IWA name and website) on a black background; the *Blue* group includes

Table 1. IWA campaigns 2008–2018.

	Released	Number of videos	Slogan	Strategy	Set	Closing slide
1	Summer 2008	1	<i>No Water to Waste</i>	Motivational	House	Red-Black
2	Spring 2009	1	<i>Must Save the Kinneret</i>	Motivational	House	Red-Black
X	Summer 2009	X	<i>Moving from Red to Black</i>	X	X	Red-Black
3	Spring 2010A	1	<i>Israel is Still Drying</i>	Motivational	House	Red-Black
4	Summer 2010B	1	<i>Water-Savers on Every Tap</i>	Motivational and Instructive	Neutral	Blue
5	Winter 2011	9	<i>Israel is Drying</i>	Motivational	Neutral	Red-Black
6	Summer 2012	5	<i>Israel Continues to Save Water</i>	Motivational (1), ^a Instructive (4)	Neutral and House (1), House (4)	Blue
7	Summer 2017	3	<i>Water is Life</i>	Motivational	Outdoors	Blue
8	Summer and winter 2018	14	<i>We Don’t Have Water to Waste</i>	Instructive (8), Motivational (3), Informative (3)	Futuristic (11), Newsroom (3)	Red-Black

^aNumbers in brackets refer to number of videos.



Figure 1. Red-Black design (2010A).

three campaigns (Figure 2) showing the blue IWA logo, with text and background in shades of blue and white; in 2017, green was added.

Strategic messages

Three types of strategic message (Rice & Atkin, 2013) were identified. *Motivational* videos appeared in every campaign and constitute 20 out of 35 items, using hope or fear as their main discursive strategy – corresponding to the red-black or blue designs. Three campaigns had *Instructive videos* (13 items) with specific guidance on how to conserve water. Recommendations are confined to the household: reducing shower length or garden irrigation, closing taps etc. One video in the instructive category shares the responsibility between the individual and the state. This is also the only video which was marked as both motivational and instructive (see 2010). The last and smallest category is *informative*, containing three videos in 2018.

Presenters and extras

The presenters in all the videos look and talk directly into the camera, addressing the viewers with *direct requests* (Liang et al., 2018). Except in two items, there is never more than one person on screen at the same time, and even in those exceptions, they do not converse. Across the years, all the extras and presenters have White-European appearance, representing Ashkenazi Jews, except in 2009 which presents more ethnic diversity. In every campaign except 2017 (and in 27 out of



Figure 2. Blue design (2010B).

35 items), the same person acts as the presenter: Renana Raz, a television actress in 2008. Raz's role in the first WCC should be considered that of the *professional performer* presenter type (Rice & Atkin, 2013). She gained national recognition and celebrity status due to the wide distribution of the campaigns, thus becoming a *celebrity presenter* (Rice & Atkin, 2013) over the course of the campaigns (further discussion below). Only the 2009 WCC significantly relied on the strategy of using celebrities as role models. Five videos, in 2012 and 2017, have only non-speaking extras. Only the informative videos used an *expert* (Rice & Atkin, 2013) presenter who is also a *celebrity*, Danny Rup, Israel's first TV-weatherman. No public officials or members of the public appeared in the videos.

Sets

Sets were categorized as: *house*, *neutral*, *outdoors*, *newsroom* and *futuristic*. The first three campaigns took place in an almost-identical set representing a *house* interior (Figure 3), and the 2012 videos were located in a family home. *Neutral* sets locate the presenter in an empty space while she interacts with digitally-animated objects and effects (Figure 4). These were first used in 2010B. The *outdoors* set is unique to 2017, *futuristic* and *newsroom* are unique to 2018. The *newsroom* set is used exclusively in the informative strategic message.

Longitudinal analysis

2008–2009: setting the discourse

The first WCC takes place in a living room, kitchen and next to a dining table, with bright summery light coming through the windows. It starts with a close-up of a female presenter (Raz) saying "Israel is drying and not just Israel." A slow and dramatic piano tune adds elements of drama and horror to the text. The most prominent element in this video starts to appear by the end of this sentence – a sound of cracking that intensifies until the end of the advertisement. It complements a visible crack that spreads from the presenter's forehead down to her body and arms. During the video, the cracks, shaped like dry land, take over the house, furniture and walls, which are crumbling and peeling. This is an audio-visual metaphor (Medeiros & Gomes, 2019) of how the drought affects the personal domain. The final close-up shows a dramatic change compared to the opening shot; now, Raz's skin is covered with cracks, injured and peeling, she is dehydrated (Figure 5). Her last sentence is "we have no water to waste," which corresponds with the slogan that appears in *Red-Black* design.

Water scarcity is also symbolized by the omission of any visual reference to water use in the house: no kitchen tap or water-using appliances such as a kettle, and no bathroom. Mirroring its visual absence, neither water use, infrastructure or sources are mentioned in the text, and there



Figure 3. House set (2010A).



Figure 4. Neutral set (2010B).

is no advice on how to save water. Only generalized encouragement to reduce consumption is given, without any economic, health, environmental or religious reasoning.

Other than the drought, no reasons for water scarcity are given. The presenter talks about the lack of water in Israel as part of a global phenomenon: “the world is drying;” she does not talk about the region and only names rich, western countries (e.g. Australia and Spain). The main textual claim is that it is not a temporary state, but rather a new state with a cumulative effect that will continue into the future: “it is not only a drought year, even a rainy winter will not be enough.” However, the explicit terminology of climate change or global warming is avoided.

The second campaign keeps the main elements of the first: the house set, music and cracking effects. The video signifies by repetition (textual and visual) a growing danger compared to yesterday. Instead of one presenter, it features nine celebrities (including Raz) sitting in different rooms of the house, with more ethnically diverse representations of Israeli society (but with no Arab minority representation). Speakers are seen one by one, not together; they complete each other’s sentences as if it is one person talking. The word “we” is frequently repeated, and the strategy in this campaign is to emphasize collective action. The narrative is more nationalistic: the slogan is “we must save the Kinneret,” and global and regional water problems are unmentioned. Lake Kinneret is a national symbol, as the source of life for the nation, and it is perceived by the public as the main water source of the country (Siegel, 2015). Protecting the lake, by reducing water consumption, historically symbolizes saving the nation. This is also a place of religious importance for the Christian minority. A famous basketball player says the slogan in the middle of the video, as though begging for help; his hand gestures are emblematic of a prayer.



Figure 5. Final close-up (2008).

Audio-visually and textually, these two campaigns describe a dangerous, drying present and an apocalyptic future, and their main discourse strategy is mobilization (motivation) through fear, with national drought resilience to be achieved through individual responsibility.

2010: two campaigns, two directions

Two separate campaigns were released during 2010 (2010A and 2010B), both offering technological solutions to build resilience, representing two opposite directions.

By returning to the same house, presenter (alone again), design and audio-visual effects, 2010A builds on the established dehydration storyline (Figure 3). Raz's opening sentence is "once again Israel is drying," referencing the opening of 2008. Behind her, books and artworks are crumbling, framing the drought as a risk to culture and civilization (Herve-Bazin, 2014). She continues with the following:

It can be different; it does not have to continue forever; if we continue to save as we have saved until now in three years, the water crisis of Israel ... [pause] will end!

She snaps her fingers during the pause and suddenly all the cracks magically disappear, the furniture is fixed, the tree outside turns green, with tweeting birds as soundtrack, and her skin is healthy again as she smiles to the camera (Figure 6). Raz explains: "it will happen because the desalination facilities will reach full capacity, but it will only happen ... [pause] in three years." The end of this sentence is spoken in the kitchen, full of cooking appliances, a reflection of the wealth associated with an abundance of water, thus associating desalination with modern life and technological achievement. The resilience offered here is a radical transformation via desalination technology. The second pause is also accompanied with a finger snap, which returns everything to its ruined state, followed by a direct request to "continue to save." This snap emphasizes the temporary nature of the scarcity (until the transformation to desalination is complete) and shifts the responsibility back to the viewer.

The second campaign of this year also suggests building resilience through technological optimism. 2010B is the first *instructive* WCC and it introduces new aesthetics: a *neutral* set and *blue design*. This video replaces the discursive strategy of fear used up until now with an optimistic approach, which is emphasized by the design. In contrast to the dehydration of previous items, this campaign's iconicity relates to water saturation and rehydration. Like past WCCs, the video starts with a facial close-up; this time Raz is looking through a metal pipe. She explains that this is a flow-control aerator and tells the viewer how much water this device can conserve in a given day, week or month. For each timeframe, piles of bottles appear around her, representing what could be saved (Figure 4). The neutral set is light blue in color. While Raz walks, ripples appear around her feet and her image is reflected as if she is walking on water. Raz explains the governmental operation to distribute free aerators for home-use by canvassing stewards, who install



Figure 6. First finger snap (2010A).

them and provide conservation advice. This is the only campaign which transfers agency from the viewer to the government (visually represented by a steward). Contrary to 2010A's large-scale transformation, 2010B suggests building resilience via multiple small-scale technological interventions with cumulative effects.

2011–2012: building on the past

The next two campaigns audio-visually build on the discourse(s) established so far. 2011 is the first wintertime campaign, under the message of “even during the winter, we must continue saving.” It gives no conservation instructions or explanation for the scarcity beyond low precipitation. It returns to the neutral set of 2010B, but this time the presenter does not walk on a wet surface, but on a dry and cracked one, reversing the saturated promise of the last campaign by referencing the earlier visual metaphor. Its nine videos all present large, transparent vessels filled with water (representing years or dates), symbolizing the declining amounts of rainfall and water in reservoirs, followed by a general conservation request and rationale (e.g.: “because reservoirs remain empty”).

As in 2010B, water and its uses are seen in every shot of the 2012 videos. They include four *instructive* videos with extras representing a family in a house set: showering, washing dishes, watering the lawn, with a voiceover giving advice relating to their actions. Slow motion digital effects keep water-drops floating in the air looking like crystals, the characters' reactions to their motionless state reflect awe, respect and wonder. This metaphor represents water as a luxury while suggesting that its natural flow should not be taken for granted. An additional *motivational* video compiled of clips from the instructive ones, ends with Raz in a neutral set, surrounded by floating water-drops, saying: “nothing can stop water, only us. Israel continues to save water.”

2017: alternative discourse

2017s WCC is irregular in all aspects, from design to messages, presenting an alternative discourse expanding the reasons to save water beyond human needs. That is, it moves away from presenting the drought from an anthropocentric perspective, adding new perspectives of resilience. This campaign is composed of three motivational videos in an *outdoors* set with different audio-visuals; green is their main color (the closing image is blue category), water sounds dominate the soundtrack. The three have identical written text, without voiceover:

Water is life
and life is not to be wasted.
After four years of drought,
this summer too, water should be used wisely.

For the first time, “life” includes non-humans: one video pictures a young girl drinking from a park fountain, the second a bird from a stream and the third a hand watering a small sprout (Figure 7). The identical text and design frame humans, animals and plants as equally in need of water resilience.

2018: discursive transformation

This is the largest campaign, broadcast during the summer and the winter. It presents several changes in the discourse on desalination and climate change; and it diverts from the discourse of a temporary risk that characterized most of the past campaigns. Unlike 2017, which used a new visual language to introduce new ideas, the 2018 campaign returns to the language developed in 2008–2011. 11 items this year take place in a *futuristic* set – a hyper-modernist concrete space combining the house and neutral sets aesthetics. Three items begin with Raz declaring “I’m back, because of the drought.” The printed (billboards and newspapers) slogan in red-black design was



Figure 7. 2017 “and life is not to be wasted”.

“I’m back, despite desalination” next to Raz’s picture with no further explanation. The intertextuality of the text and design with former campaigns are sufficient to indicate to the viewer that this is a call for water conservation.

In 2010 A, desalination was presented as a promise to end water scarcity forever. In contrast, the main message of 2018 is that desalination only gives an illusion of water abundance, without the ability to fix the accumulated long-term shortages. This claim is represented by a new visual metaphor. The first video released starts with Raz drinking water with a straw from a glass while the water surface does not descend; instead, the glass empties from the bottom up (Figure 8). Standing on a cracked surface, she says “after five years of drought, we have pumped everything we can.” Raz repeats: “there’s no water in the streams/aquifers/Kinneret,” accompanied by images of water vessels (vase, kettle and aquarium, respectively) also half-empty from below upwards. In another video she explains this metaphor while raising the glass: “let’s look at the glass half empty: desalination is not enough, and it doesn’t matter how much water we desalinate; we don’t have water to waste!”

To explain this change in message, a new type of video was introduced: minute-long *informative* clips, placed in a *newsroom* set, with Danny Rup as an *expert* presenter. These are the only items using an informative strategy (Rice & Atkin, 2013), giving data and figures in speech and images. While Rup speaks, *symbolic* and *spectacular* images (Lester & Cottle, 2009) complement and interpret his statements (desert views, floods, Kinneret coastline, desalination facilities and smoking chimneys). The speech directly addresses the dissonance between having desalination operations and the need to conserve water:

We have desalination, but there is also global warming. [...] True, we have water in the faucets thanks to the desalination plants, but desalination is not enough. It’s only part of the solution to the problem. Let’s remember, desalination has an economic and environmental price.



Figure 8. Glass half empty (2018).

This is the first mention of the negative implications of desalination, connecting it to climate change as a reason to reduce consumption. It acknowledges the problems of technological solutions to the drought (in contrast to past messages) and that climate adaptation requires permanent reductions in water use. Addressing the connection between climate change and the water shortage is the second main discursive shift of 2018. The presenter addresses the misconception that increasing floods events are a sign of water abundance, while in fact the natural reservoirs are empty. As in 2011, the 2018 WCC encourages maintaining patterns of conservation regardless of rainfall (e.g. “even if it’s a rainy winter,” “always save”), while emphasizing that this is not connected to a specific drought event.

Discussion

The literature describes Israeli society as a mobilized society (Peled & Ophir, 2001), one with a long history of public campaigns for water conservation (Siegel, 2015). Building on this tradition, most IWA campaigns were *motivational*, relying on assumed common knowledge and not explaining how to conserve water. Hence, there were only three *informative* videos and only three campaigns with *instructive* items, appearing only in later years. Predominantly, motivational videos used *fear* as their main discursive appeal (Yzer et al., 2013); a minority used *hopeful* messages or a combination of both; and only three videos used *informative* and *rational* appeals. Simultaneously, motivational videos reaffirmed hegemonic discourses of citizen mobilization through individual action rather than systemic changes (further below). Importantly, the most common mobilization strategies in other countries, economic (saving water = saving money) and environmental (conserving water = nature conservation) strategies, were absent or marginal in the IWA campaigns.

The earlier WCCs (2008–2010A) developed a distinctive audio-visual symbolic language, envisioning an apocalyptic future, which was later modified by intertextuality, references and repetition to communicate more complex messages, and to suggest an alternative, saturated future. Common elements are two distinctive sets (house and neutral), graphics, visual metaphors (cracks and empty vessels), sound effects and slogans. In the earlier three years, a visual metaphor (Medeiros & Gomes, 2019) of dehydration constructed the presenter as symbolizing both Israel as a whole and the viewers as individuals, affected by drought. Later videos, from 2011 onwards, reaffirmed the discourse of dehydration through brief references, without making this metaphor central.

The important element of continuity, despite evolving messages, was achieved by using the same presenter. Raz began as a *professional performer* type of presenter (Rice & Atkin, 2013), probably cast as the messenger due to her “typical” Israeli look and ability to attract attention while sounding credible and engaging, not for her public recognizability. She did gain such recognizability after the first campaign, making her what Abidin et al. (2020) call a “commercial TV product celebrity environmentalist” from 2009 onward. The first campaigns situated Raz as a symbol of domestic water conservation, which made it possible, in 2010, to use her to construct a new visual metaphor for a saturated future. As Abidin et al. (2020, p. 403) explain, environmental celebrities popularize particular frames of mainstream environmental expression that “encourage individual consumer action over state-supported cultural change.” In 2018, after five years of absence, Raz’s “I’m back” statement was enough to signal the need to save water, suggesting that during the decade since her first campaign, Raz has become the national *icon* (Lester & Cottle, 2009) for water saving, an established identifier of droughts and water conservation.

The campaigns took one of two opposite approaches in the symbolic and iconic audio-visualization of water, either emphasizing its absence or presence. Water’s absence was visualized by the lack of taps, empty vessels and most of all by the cracking effects. Water saturation was presented by taps, full glasses and bottles, bathrooms, sprinklers and kitchens overflowing with dishes and appliances; complemented by dripping and flowing water sounds. These visual symbols were connected only to the categories of *life*, *human utilization* and *civilization* (Herve-Bazin, 2014), and the visual metaphor of dehydration presented the risk imposed by the drought on these three categories. In

speech, direct mentions of water *uses* were predominately given in *instructive* videos. By contrast, the *motivational* videos mentioned water *sources*: Lake Kinneret, reservoirs, streams and desalination. These were mentioned to signal the magnitude of the drought (i.e. its effect), and the promise of desalination as an alternative source. This accords with Herve-Bazin's (2014) suggestion that WCCs are able to encourage the protection of natural sources.

Resilience

WCCs are water management tools (Katz et al., 2016) and, as such, are common means to achieving water resilience (Rodina, 2019) which reflect the resilience perception of their producers (the IWA) at the time of production and in terms of the changes over time. Building on McGreavy's (2016) call to study "different" discourses of resilience, this paper examines audio-visual discursive construction of responses to drought risks thought governmental WCCs.

Salmon and Murray-Johnson's (2013) conceptualization of *effectiveness* assists in identifying characteristics of the resilience discourse constructed by IWA WCCs. Starting with *definitional effectiveness*, firstly, water scarcity was defined as a risk or "crisis" caused by the droughts, and until 2018, the connection to climate change was unmentioned. The resilience offered was confined to water scarcity and drought risks, disconnected from climate change, thereby highlighting that *water resilience* and *climate resilience* are complementary and not necessarily overlapping or identical concepts. Secondly, the WCCs defined the risk as a techno-managerial problem. Like most WCCs globally (Herve-Bazin, 2014), the discourse was confined to household use. Accordingly, none of public sector, business, industry or agricultural consumption were mentioned. Thirdly, while presenting water primarily as a resource and not as part of nature, the campaigns marginalized non-human, environmental and ecological aspects, thus demonstrating the anthropocentric approach of the IWA towards water resilience.

By directing the responsibility to the public and only mentioning three policies (garden irrigation regulation, 2009; aerator distribution, 2010B; and desalination 2010A, 2018) – the *political effectiveness* of the campaigns concealed government responsibility for risk management (i.e. they depoliticized resilience). Additionally, the discourse was confined to the political borders of Israel (excluding neighboring nations relying on the same resources). The *ideological effectiveness* in most campaigns maintained the same set of discourses: de-political national mobilization via ethical-individual action. As shown, most of the IWA WCCs confined their messages to promoting risk mitigation by mobilizing a voluntary reduction in domestic consumption via individual action, framed as a nationally unifying value (as suggested by Herve-Bazin, 2014; Siegel, 2015), while silencing relevant issues such as population and economic growth. This approach is in line with criticism of resilience as a neoliberal discourse which normalizes private responsibility over state influence and power (Cretney, 2014). Furthermore, ideologically, presenting the drought as an anthropocentric problem was a central discourse: viewing humans as the only users of water and ignoring environmental reasons for conservation. The opposite perspective, an eco-centric discourse which includes non-human use of water and eliminates the human-nature dichotomy, only appeared in 2017. Thus, the IWA WCCs effectively set water resilience as an ethnocentric goal, as a utility issue (Rodina, 2019), not an environmental one.

A longitudinal examination of the formation of the discourse supports the panarchy model of resilience (Davoudi, 2012). The first two campaigns offered *resilience-by-resistance* (Matyas & Pelling, 2014), that is, temporary minimal changes to consumption while waiting to return to a business-as-usual scenario. As the droughts continued, resistance was not enough, and 2010 proposed two ways to achieve resilience: either by implementing minor *adjustments* by installing aerators, or by a *transformation* of the water sources through desalination. These alternative futures were constructed in the videos in different ways. Despite its transformative ability, desalination was presented first as a bouncing-back technology, magically eliminating the problem and returning society to its pre-crisis state. Conversely, the water-saving devices were presented as

opportunities for bouncing-forward, enabling a new saturated future. Nevertheless, despite their differences (in scale, direction of change and mode of implementation), both technologies reinforced techno-managerial discourse, and offered a future where old patterns of consumption, which induce scarcity, could be maintained. Furthermore, in both ways, and only in these WCCs, responsibility for resilience expanded beyond the individual and included the state (supplying the aerators) and an unnamed entity (implementing desalination).

The 2011 campaign moved away from the discourse of temporary risk by constructing a new status quo of “even during the winter.” This marks a development to *resilience-by-adaptation*. In the following year, 2012, this adaptation included specific conservation instructions, which only suggested minor adjustments to behavior. Audio-visually, 2012 maintained the promise of a saturated future, without explicitly referring to the promises of 2010. Despite the continuation of the droughts, no campaigns were released in 2013–2017, compared to 1–2 WCCs per year in 2008–2012. During this time, desalination became the main water source in Israel (Teschner & Negev, 2013). This mitigated the effects of the drought while consumption reductions relieved pressure from natural sources. As suggested by Katz et al. (2016), based on the increase in national water consumption during these years, by not releasing WCCs, the IWA might have signaled to the public that the 2010A promise of achieving resilience and ending the crisis by desalination had been fulfilled. The 2017 campaign, which offered an alternative and broader discourse, discussing the water needs of nature and not just humans, also reinforced this perception – the privilege of addressing nature’s needs was enabled by some relief in the stress, offered by desalination.

Nonetheless, the continuation of the drought brought a re-evaluation of the transformation offered by desalination. Therefore, 2018 was a critical discourse moment: to explain the shift from the promises of a saturated future achieved by technology, it was necessary to publicly announce that “desalination is not enough.” The informative videos opened the scope of the debate by giving for the first time a comprehensive explanation of the national water situation. It mentioned the environmental and economic cost of desalination and explained that desalination is not a climate resilience policy. This potentially enables broader discussion of the implications of desalination and implies that water resilience should also address issues of climate resilience.

Conclusion

This study has shown the importance of not only looking at what actions and policies are proposed for building resilience, but also looking at how they are communicated. To the traditional questions of resilience “from/to what?,” “how,” and the more current “by/for whom?” (Cretney, 2014), it adds the question of how this process is mediated. We thereby expose the nuances of how the risk is understood, the justification for a specific action, and how the desired future is understood. In this particular case, these variables of resilience were identified by changes in audio-visual representation. Thus, even though technically all the WCCs are based on the same demand management approach to the same risk (Katz et al., 2016), a deeper critical examination of the representation revealed varied ways of conceptualizing the need for resilience and of achieving it. This paper addressed a single case study of communicating water resilience, opening the door for further studies to address resilience representation from an environmental communication perspective.

Given Israel’s reliance on supply technologies, one may question the relevance of this study to other cases. However, the IWAs WCCs themselves show that drought resilience cannot rely on technological innovation alone, thus emphasizing that WCCs are important to achieving resilience, as Katz et al. (2016) suggests. Furthermore, while some of the elements in the WCCs employed specifically Israeli cultural references, most were more general in nature. Indeed, in 2020, the Chilean government introduced a national WCC named *Chile Dries Up*, which was – visually, aurally and textually – almost identical to Israel’s 2008 campaign, which Chilean news outlets claim it copied (Massai & Herrero, 2020).

Alongside joining the growing conversation on resilience, this paper addresses several gaps in EC studies around audio-visual discourses and longitudinal methods. Furthermore, in the fields of risk and EC, there is extensive research on public or NGO-led advocacy campaigns aiming to influence governments and/or the wider public (e.g. Doyle, 2011) and a long tradition of analyzing representations of nature in commercial advertising (Hansen, 2015). Thus, despite the genre similarities, governmental PCCs offer a unique perspective on institutional discursive representation of nature and risk in a popular audio-visual format, which until now had been overlooked. Comparative research into the discourses deployed in WCCs (or PCCs addressing other environmental risks) is therefore needed to produce a typology of popularized audio-visual representations of (water) resilience.

Note

1. All the citations from the IWA campaigns presented in this paper were translated by the researcher.

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