

Hybrid Water Cultures: implications for service relations with diverse water users in Sydney, Australia

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Abstract

How do diverse communities encounter and respond to government water services? This paper explores shifting cultural dynamics of a diverse group of Mandarinspeaking migrants in Sydney, Australia and implications for services in the context of a research project with a major water utility. Significant challenges for water services in Australia were unpacked. The central challenge we explore in this paper is the validity of the operational category of the 'average customer' which had been relatively stable for Sydney Water for over a century. However, in the last 20 years, the culture of Australia has shifted away from Europe and toward Asia. Questions around communication, information sharing, governance and management, were provoked. The take up of our research in Sydney Water's customer education and engagement strategies has fostered more diverse and inclusive representations and points to the value of nuanced social and cultural research in service design contexts.

Keywords: government water services, cultural diversity, cultural research, social practice theory

Introduction: the customer and the threat of bottled drinking water

This research was conducted as part of a project 'Understanding the Drivers of Public Trust in Sydney's Water' (Drivers of Trust) a partnership between Australia's biggest water utility, Sydney Water Corporation (SW), and the Institute for Culture and Society at Western Sydney University. Interested in the changing landscapes of public trust in the 21st century, the corporation sought input from qualitative cultural

and design researchers to enhance their knowledge and understanding of diverse customers that went beyond psychology-based market research.

Modelled on colonial Britain's 19th century water systems and committed to technical excellence, Sydney's water utility has been described as having "a strong engineering culture overlain by a strong economic approach to water-management issues" and a "strong defensive institutional culture" in the face of criticism (Troy 2008, p.193). It is particularly sensitive on the question of trust in drinking water since a 1998 scare over contamination by *Giardia* and *Cryptosporidium* led to a city-wide boil water alert. "The incident" (as it is obliquely referred to within SW) revealed deficiencies in lines of responsibility and communications in the newly privatised corporation, which was subsequently reconfigured to come under greater ownership and oversight by the state of New South Wales (Fullerton, 2001). The loss of public confidence in safe drinking water, exacerbated by media reporting of the incident (Doria, 2006), and coinciding with the invention of 'hydration' as a health and fitness concern (Hawkins et al., 2015), provided an opportunity for the rapid development of bottled water markets in Sydney, which have not significantly receded (Hawkins, 2017a). In recent years, Sydney Water, like other first world metropolitan water utilities, has promoted tap water as healthy, safe and environmentally beneficial (through reduced plastic pollution from single-use water bottles). Campaigns have included media advertising, promotion of reusable water bottles, and provision of branded drinking and water bottle refill stations in parks and other public areas. The organisation remains highly sensitive to any negative publicity and exercises tight control over media messaging and other communications, while its promotional campaigns have continued to shy away from references to water treatment, reservoirs or pipes and pumps.

Bottled water does not pose a serious commercial threat to Sydney Water—only 2% of piped water is estimated to be used for drinking anyway—but in an historical context, drinking bottled water is interpretable as a sign of lack of trust in the corporation and its product. Our study of Mandarin-speaking Sydney residents was prompted by customer survey findings that people of Chinese background reported drinking significantly more bottled water than other demographic groups. To Sydney Water, this implied a lack of trust in the corporation and its capacity to deliver clean municipal drinking water that warranted closer investigation. As design and cultural researchers, we suspected more was going on here in terms of cultural background, expectations, and social practices.

Sydney Water conceptualises service recipients as 'customers' partly in response to the context of bottled water in which a public good is converted into a branded good competing for the money and loyalty of private individuals. However, an early



revelation of our research was that Sydney Water's customer-focussed communications strategy had failed to engage many Mandarin-speaking residents simply because they were not in a customer relation to the corporation and did not know about the company or its services. Although Sydney Water encourages its water professionals to conceptualise every one of Sydney's 5 million people as a customer, the truth is that water services are supplied to properties not people (via approximately 2 million connections), so that in general only property owners receive water bills from the utility. Most people in our focus groups lived in apartments they rented or owned and paid for water as part of more general utility fees. Tenants and apartment dwellers in Sydney did not usually receive water bills and so had no opportunity to form a relationship with the corporation, or to engage in its main direct communications organ, the *Water Wrap* newsletter sent out with the water bill.

As qualitative researchers, our approach to the study somewhat replicated the conditions of knowledge exchange and civic trust represented by the emergent dimensions of 'the hydro-political framework' (Sofoulis & Strengers, 2011; Sofoulis, 2011) and its adaptations (Sofoulis, 2017) that model a shift from top-down 'paternal' relationships with water users preoccupied with providing a smooth and efficient customer service journey, to a more active civic participation in water services modelled by more progressive utilities like Yarra Valley Water, which is explicitly concerned with communities and publics, not just customers.

A key finding of this study is that Mandarin-speaking water drinkers in Sydney were sceptical of governments and institutions, expressing low levels of institutional trust, but wanted to be addressed as peers and adults with a right to more transparency about water treatment and delivery. These insights have significant implications for Sydney Water's communication and engagement strategies with diverse water users, and for the provision of future water services in a rapidly changing cultural and environmental landscape.

Methodology: understanding diverse water users beyond the 'customer experience service themes wheel'

This research sought to understand 'drivers of trust' in Sydney's water among Mandarin-speaking communities with the explicit goal of informing public education and customer engagement strategies. Previous research had suggested that out of those choosing *not* to drink water straight from the tap, the majority are more likely to be speaking a Chinese language at home, and that language was most likely to be Mandarin. The practice of drinking bottled water was a concern for Sydney Water,



not only because bottled water was in market competition against its ‘tap’ brand, nor only out of concern for waterways pollution by plastic water bottles, but because drinking bottled water seemed to signify a lack of trust in Sydney Water’s product.

Therefore we wanted to understand how trust in the water utility played a part in the drinking water practices of Chinese-speaking residents, employing the discursive mechanisms of the focus group and interview, as well as unobtrusive observations of drinking water cultures in some of the most culturally diverse areas of Sydney (a geography of [mis]trust from the utilities perspective encompassing Hurstville, Strathfield, Burwood, Ashfield and Auburn), and a close examination of drinking water ‘infrastructures’ in everyday environments. In addition, we conducted a light review of culturally and linguistically diverse (CALD) specific research and communications across government agencies. We also researched the knowledge cultures within the water utility by holding ‘social learning’ workshops with employees across different parts of the organisation (Reed et al., 2010; Mitchell et al., 2017).¹ These collaborative workshops helped to surface, interrogate, and ultimately disrupt organisational ‘group think’ and assumptions informing the utility’s education and engagement strategies. They also provided a ‘translation space’ for us to workshop the findings from our social research with employees who were responsible for utilising our research in reframing these strategies. We analysed our diverse data sets of images from observations, transcripts from interviews and focus groups, and workshop materials thematically, and using a social practice framework to surface interconnected themes.

A theory of social practice, which is gaining traction in diverse fields of applied knowledge including design, planning, public health and resource governance (Roberts et al., 2019; Sydney Water, 2021), was central to our research approach and novel to employees whose thinking was steeped in behavioural economics, which prioritises an individual’s psychology as a determinant factor in shaping habitual practices, deprioritising other factors, like environment and culture. Theories of social practice move away from an emphasis on individual psychology (attitudebehaviour-choice [ABC] — see Shove, 2010) or technological ‘fix’ (Weinberg, 1994) as ways of understanding human behaviour and parameters of social change. These approaches tend to overlook the complexity of human practices to engineer post-hoc behaviour change via the education of average ‘customers’. Instead, a social practices approach focuses on how everyday routines are shaped through interactions between materials (devices, resources and infrastructures), skills (capacities, know-how) and meanings (cultural values, ‘common sense’, language) in

¹ Social learning is a process of ‘knowledge co-generation’ in which people learn from each other in a collaborative enterprise, and the practical outcomes of this learning (Reed et al., 2010)

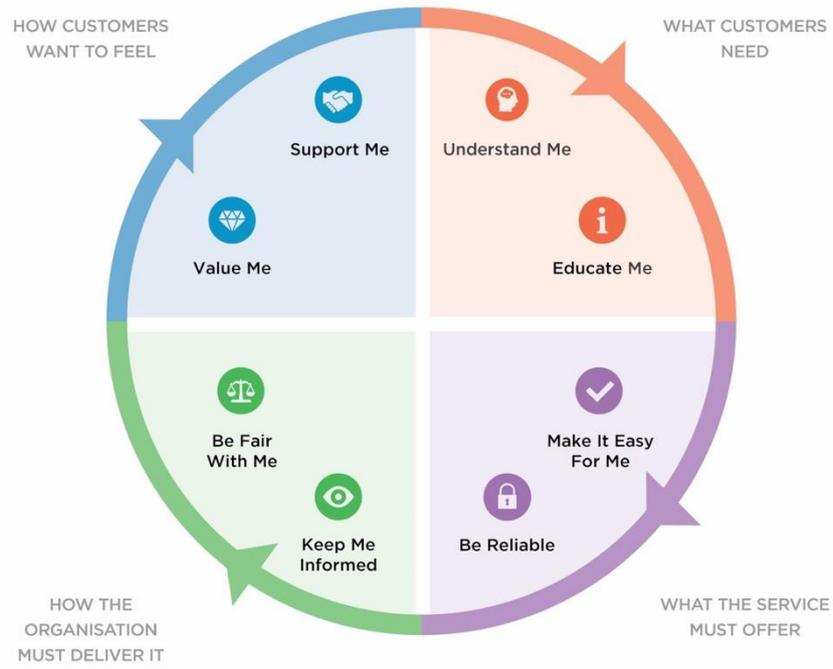


social settings (Schatzki, 1996; Pantzar & Shove 2010a; Shove, 2010b; Maller, 2011; Scott et al., 2012; Shove et al., 2012). Water drinking practices were not just the outcome of individual feelings, thoughts and decisions, but arose out of the interactions of technologies, skills and meanings: they made sense within a cultural logic, or multiple and possibly contradictory cultural logics. This approach, which situates water practices within social and technical contexts, is in direct contrast to the psychological framing of the self-interested and individuated service recipient as represented by the Customer Experience Service Themes Wheel (figure 1) deployed by the utility in the design of its service-relations. Its “me me me” emphasis does nothing to help develop community engagement strategies that are culturally relevant and situate people within societies (figure 2). We felt a social practices approach was highly appropriate as like the majority of Sydney-siders, Mandarin-speaking water users interact with water services several times a day and in social contexts as part of the background of inconspicuous consumption in everyday life. Unpacking these dimensions helped us to obtain a more nuanced understanding of everyday water drinking practices and to appreciate some of the complexities and meanings of drinking bottled water, in addition to the rich insights we gained through our interviews and discussion groups. It also gave us clues as to how the socio-technical regime of water provision, and their associated everyday practices could be more culturally sensitive.



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CUSTOMER EXPERIENCE SERVICE THEMES WHEEL



proto

Figure 1. Sydney Water Customer Experience Services Themes Wheel by Proto.

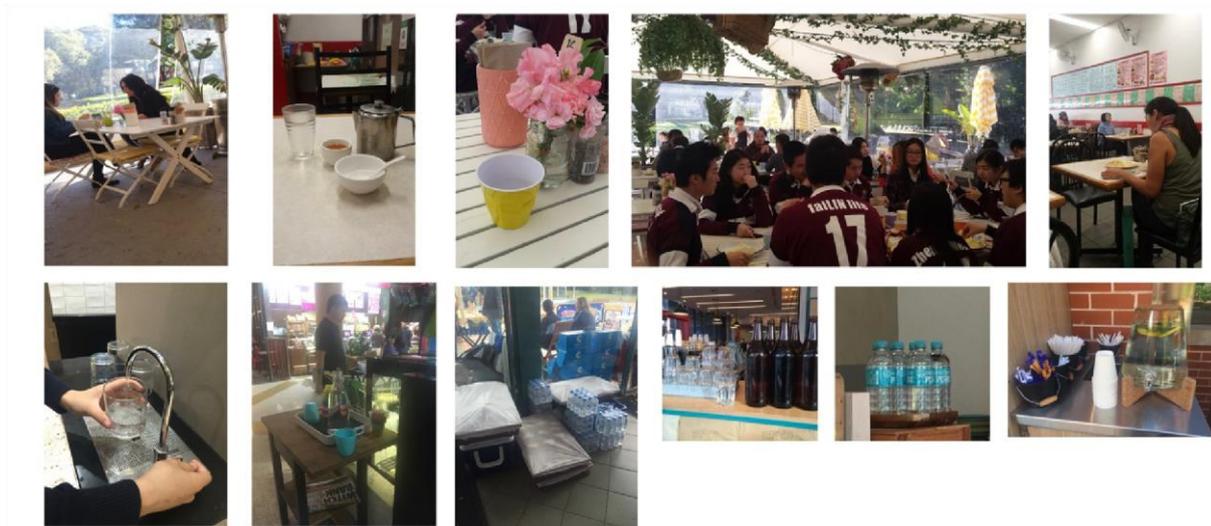


Figure 2. Social water drinking, Burwood. Photos by Abby Mellick Lopes and Rachael Wakefield-Rann.



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Our participants, recruited with the help of a multicultural health service provider, represented some of the diversity of Mandarin-speaking Chinese Sydney-siders, with 39 participants from 17 provinces and cities in China.² Since 2010, China has surpassed the UK as Australia's primary source of 'permanent migrants' (Phillips & Simon-Davies, 2017), a clear sign of the diminishing influence of Europe in Australian culture. In addition to demographic factors indicated in the diagrams below, we also considered the age at which participants came to live in Sydney. While those who had arrived in Australia at a young age indicated a preference for cold bottled water or 'plastic water' (Hawkins, 2015), and expressed disparaging views about the 'traditional' water drinking preferences of older migrants, this did not preclude their practice of these traditions in the context of their families. These dynamics directly informed our insights about 'hybrid' cultures and importantly, contributed to our questioning about the validity of a key social category operating across government agencies and elsewhere, that of the 'culturally and linguistically diverse' (CALD) communities. In our review of the literature, we found this category inadvertently perpetuates an 'us' and 'them' divide, for example, an Australian government strategy document explicitly aiming to create a more inclusive workplace culture opens with: "We recognise the value that colleagues from culturally and linguistically diverse (CALD) backgrounds add to *our* work through *their* skills, experiences and perspectives." (our emphasis) (DFAT, 2018, p.2). As Hansen et al. (2013) identify, the CALD category tends to carry an assumption of lower socioeconomic status and low educational attainment, with a common perception that they are 'hard to reach' and challenged by a range of linguistic, cultural and socioeconomic 'barriers' (Hansen et al., 2013). These assumptions were confounded by our research. We were keen to show that both the CALD category *and* conventions of its use limited the water utility's capacity to gain a more nuanced understanding of trust and develop reciprocal trust relationships with communities. We felt the utility had already begun to challenge this by the commissioning of qualitative research.

² Participants names have been changed to protect their identities. Our selection of aliases correlates with the name participants provided, whether Chinese or Anglicised.





Figures 3 and 4. Study participants. Diagrams by Matthew Kiem.



As a form of engaged, discursive research, the focus groups and interviews were useful in unpacking several assumptions about trust relations, which were also surfaced in the social learning workshops.

We asked participants about their water drinking practices at home and out and about (interviewees were explicitly asked to show and tell about their 'water drinking infrastructures'); childhood and familial practices; preferences, concerns and influences; who and how they demonstrate trust; and information needs and ideas for future engagements around drinking water.

We catered the focus groups with different water drinking formats, including ice cold tap water and glasses, plastic bottled water and tea, to unobtrusively study water drinking choices during the session, and to add further comparison with our 'street' observations.

Emerging Themes: service encounters and meanings

In what follows we identify four of the key themes emerging from our research. Our findings reveal a nuanced and sensitive portrait of the meanings, practices and experiences of a growing and culturally significant population in Sydney and point to more mature and culturally appropriate future service relations.

Theme 1: everyday water preparation

The first theme emerging from our research confounded Sydney Water's focus on drinking water straight from the tap as a key measure of trust in water quality. Many of the water drinkers in our study prepared water before drinking it including boiling, cooling, storing and flavouring tap water. Water preparation was described as an important intergenerational cultural practice associated with care-giving, bearing little relation to a judgement about the quality of the water coming out of the tap. Flavouring water with fruit, vegetables, herbs or honey as part of preparation was common, and also contradicted one of the water utility's long-held beliefs that 'tastelessness' was a determinant of water quality for customers. Equally, there was a strong link between water temperature and perceptions and experiences of bodily wellbeing amongst participants. For many, warm or hot water drunk on its own, or as tea, was equated with healthy digestion, internal 'cleaning', physical comfort, and even for making food softer and more palatable. Many older participants in the focus groups used terms such as 'settles', 'relieves' or even 'cures' to describe its effects. This was in distinct contrast to the utility's preoccupation with promoting icy cold water straight from the fridge as the preferred way of serving brand 'tap'.



Water preparation also requires a special domestic infrastructure, plus an array of different portable storage containers. Throughout the focus groups and interviews, there were frequent references to ‘water bottle’, ‘bucket’ and ‘boiler’. With the help of our Chinese-speaking research assistant Yinghua Yu, we created a visual audit of the different water containers or *shui bei* our participants were referring to for use at home, work or out and about (figure 5).

What was fascinating about this was it uncovered a potential miscommunication at the level of the formats for water delivery that was a key premise of the research; the assumption around the meaning of ‘bottled water’ as referring to single-use plastic bottles. This was not the same meaning shared by our participants, who referred to diverse forms of containers of prepared tap water. The container the water came in was highly significant to water drinkers, as one participant, Tim, explained, “Actually, the water source is all the same, they are all tap water. But the container will make one feel ...whether to drink or not, it's the container.”



Figure 5. Standard portable drink (600 ml bottle of water) vs *shuibe*.

Key findings:

- Water preparation (such as boiling) does not reflect a mistrust of tap water, or a lack of knowledge about water quality on the part of Mandarin-speakers.



- Recognising and respecting water preparation as a cultural practice is crucial in building positive trust relationships with Mandarin-speaking water drinkers. The recognition and representation of diverse water drinking practices would be encountered as a mark of respect.

Theme 2: hybridising cultures

Previous studies commissioned by Sydney Water had categorised people as primarily tap water drinkers, bottled water drinkers, filterers or boilers. A further category, the 'switcher' had been developed to account for people who switch between tap and bottled water drinking. These types were concretised as personas in Sydney Water's internal research insights document, embedding assumptions about gender and cultural background through visual representations, including the 'boiler' as a brown woman holding a kettle. Our study found that while many people remain committed to the practice of water preparation, this was clearly not exclusive of other water drinking practices. In fact, comfortable co-existence of different practices was the most prevalent case. Our practice-based account revealed a more plural and dynamic culture of water drinking, where drinkers were 'mixing' rather than 'switching', according to different settings and circumstances. A common response was that water straight out of the tap is used to supplement bottled (cooled, boiled or plastic) water, or perhaps 'a dash' of tap water was added to cool down boiled water.

People live in social networks, including sometimes intergenerational family groups that influence their practices with different water preferences expressed by members of the same family, and changing also with different social occasions. Participants also saw that schools, offices, restaurants and so on, were potentially important sites of influence on water drinking practices, depending on the availability of different water drinking formats in those settings. As one participant, Nancy remarked: "In Chinese restaurant they always give you hot tea, if they provide tap water maybe someone can accept it."

Key findings:

- We found that the longer people live in Australia, the more they developed a tolerant and relaxed attitude toward drinking water and a 'mixed' culture of use develops. This challenges stereotypes of 'pure' or recalcitrant cultural practices resistant to 'education'.
- *Hybridising cultures do not pose a threat.* The water utility should develop a more tolerant approach to diverse water drinking practices, whilst addressing



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the difficulty of accessing municipal water in culturally palatable formats in some settings.

Theme 3: Information Ecologies

Our conversations with Mandarin-speaking Sydney residents about what kinds of information and messages they trusted around water revealed some of the communication complexities facing water utilities in multicultural cities and highlighted the tensions between top-down and more peer-to-peer styles of communication.

Water utilities tend to assume they are the sole authority and source of information about metropolitan water, and it is the case that every water company website reviewed for the project held copious quantities of information for customers, householders, gardeners, businesses, builders and plumbers. In addition, opportunities to interact with Sydney Water, such as providing feedback on services, was promoted through banner ads on the website (Storey et al., 2016). As noted in the introduction, Sydney Water's fixation on the 'customer' (in fact, the property owner) as a target of communications meant that people who lived in apartments or rented housing never interacted with the corporation at all, and did not receive the informative *Water Wrap* bill enclosure, with links to water quality information. Many of our participants were in this category, though others referred to reports they had read or excursions to dams, or in one case, a water treatment plant, demonstrating an active interest in the water utility that bore out Sydney Water's claim "*that our customers want to have stronger engagement with and education from us.*" (Sydney Water, 2015-6).

However, the rise of digital communications means that water providers are only one source of information in a messy knowledge ecology that people access and share in uncontrollable ways. For example, our participants (especially tap drinkers) were highly attuned to news about local water quality, water pollution stories being an all too familiar genre in China. On the days Focus Groups 2 and 3 were held, an ABC News story (Miskelly, 2017) about university research on pollution of the Wingecarribee River by toxic water from an unremediated coal mine, had been picked up and translated by a Taiwanese news agency. It was circulating with an accompanying 'scared cat' gif on the powerful Chinese social media platform WeChat, widely accessed by the Chinese diaspora (figure 6). Several participants knew of the story from this and other sources. In Focus Group 2, Ken, a tap drinker in his mid-twenties who had lived in Australia for 2.5 years, said reading the story made him very worried about heavy metal pollution and had prompted him to go and buy bottled water. Aron responded with a reminder about the unreliability of social media:



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“But, like 镜报 [the news source banned in China], which [Ken] mentioned just now, as well as some of those WeChat public accounts, they are not official, and there are many rumours published by the WeChat public accounts.” This example raised important issues with the top-down and defensive communication strategies implemented by Sydney Water, which prevented it responding in an agile and transparent fashion when things go wrong. As Owen remarked, “Don’t cover the problems, just correct the wrong in time, people will accept it.”



Figure 6. ‘Scared cat’ gif accompanying water story on WeChat shared with us by focus group participants.

Another issue with the dominant paternalistic mode of communication emerged in relation to media campaigns aimed at getting people to change their behaviour around water use. Our participants deeply distrusted messaging from governments or vested interests; anything that smacked of didacticism seemed like a betrayal of the implicit promise that comes with moving from a totalitarian regime to a liberal democratic society that promotes freedom of choice. For example, the idea of campaigns persuading people to drink tap water came under criticism. One participant, Hui, thought promotion of tap water should be portrayed as an option, not an imperative:



“...the idea is not to ah, force you to change your lifestyle, but give you more opportunity to access other life styles, [makes] it easier [for people] to accept this idea [of drinking tap].”

Sydney Water has a long tradition of making announcements and key information available in a number of the languages spoken in Sydney, including advertising in ethnic newspapers. This represents a recognition of diversity within the top-down framework. But as McLuhan long ago claimed, the medium itself is a message. Participants suggested that Sydney Water could move to communicate more effectively with Chinese-background residents by developing a presence on the social media platforms they use. (Facebook, favoured by Sydney Water and many corporations and departments, is unavailable in China).

In a demonstration of the dynamic Botsman (2017) identified as the decline of institutional trust and the rise of distributed trust networks, there is little trust in singular authoritative voice of the water provider, communicating to the anonymous ‘general public’ or the fictitious ‘average customer’. However, there is a willingness to trust messages from that provider that are tailored to the concerns of particular cultural-linguistic groups via trusted community figures, peers or third parties and via their preferred peer-to-peer communications platforms.

Key findings:

- Transparency of information, both good and bad, was a critical factor for participants in our study. This has clear implications for both the content and form of the utility’s communication strategies.
- Reliance on the top-down, paternalistic authority of the government or water authority was not appropriate for most of these participants, who rejected didactic campaigns promoting tap water, and who had low levels of ‘institutional trust’ but put more trust in peer-to-peer communications and experts independent of water providers.

Theme 4: daylighting infrastructures

The legacy of the top-down, expert-centred 19th century approach to water supply is baked into the design of existing urban water systems, which are expected to function as ‘black boxes’ for people who are kept ignorant of their hidden workings and expected to have ‘blind faith’ in the authorities operating them. With their centralised storage and treatment facilities and gigantic invisible distribution networks, accessible only to authorised technicians, engineers, scientists, and support staff, Big Water systems inscribe into the urban landscape the divisions



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between the experts with special knowledge about the water system, and the passive recipients of water services whose operations are literally 'in the dark', underground, invisible, inaccessible: part of the urban unconscious.

This black-boxing of water infrastructures means that people new to a city may not be able to tell that all the water delivered through the pipework was the same water, rather than 'fit for purpose' rainwater or recycled water for toilets or laundry, as they may have experienced elsewhere.

My choice is the tap water ... I will not drink tap water from the toilets, (laughter) I do not feel comfortable with that. But, I feel, the other tap water that is for drinking, it tastes the similar with bottled water, so I will drink that. (Owen)

If there is bubbler for drinking, I will drink from it. But if there are no such thing and I have to go to the toilet to get tap water, I will not drink it. (Ning)

Does the hose outside count as something that's not tap water? (Gordon)

These responses highlight that Sydney residents from places where mains water was not usually potable were more likely to understand that different forms (or sources) of water should be used for different purposes. They did not appreciate the extravagant tradition of provision of potable water for all purposes, including toilet flushing.

In recent years, 'daylighting' has become a countervailing value to the tradition of hiding urban water and infrastructures below ground. For example, a number of local councils are involved in 'de-culverting', re-opening concreted and covered streams and restoring natural flows to urban waterways. In a society where trust in social institutions like banks, governments, mainstream media has undergone significant decline, more managers are realising that a shift towards greater transparency about information, operations and decision-making is one way to regain trust. In the water industry, the tensions between hiding and revealing are discernible not just in relation to material infrastructures but also in communications, especially around water quality.

Sydney Water rarely discussed pipework and the invisible water treatment and delivery process, choosing instead to promote the natural source of drinking water, in Sydney that is Lake Burragorang in the lower Blue Mountains west of Sydney CBD.

For our participants, who were not steeped with the Western romantic ideology of Nature as a counterpoint to Technology or industrial society, water is more trustworthy when presented as a *processed product* coming out of a 'water factory' or a 'water machine' than as something bestowed from a *natural source*. The 'rawness'



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of water in the natural environment provided no guarantee of quality for an industrial product they knew was treated, pumped, and piped.

Heng, who had only been in Australia for 2 years, wanted excursions to ‘visit the factory’ to see how Sydney Water cleans water “and show how the water going through the pipe, that will do, but apart from that, any other information is fake for me”. And Justine, (6 months in Aust.) said she might drink more tap after visiting Sydney Water facilities “to see where from, what processes to filter, etc transparency of process to public would increase faith in water quality.”

Key findings:

- Our study found a mismatch between the water corporation’s tendency to avoid detailed representations of water infrastructures and the desires of Mandarin-speaking residents for greater technical information about water treatment and delivery.
- The tendency to promote the ‘natural source’ of water and to hide the processes of water treatment offered no reassurance about the quality of tap water to participants in our study. Instead of pipes being kept invisible and undiscussed, they could be ‘daylighted’, and included in discussions of water quality and the production of safe drinking water.

Discussion: implications for service-relations that emphasise civic trust

While this study was of a relatively small-scale, it highlighted several problematic assumptions embedded in Sydney Water’s communication and engagement strategies that subscribe to a traditional top-down approach to water management. Under this approach, the public is infantilised by being denied knowledge of the workings of water infrastructure and is expected to demonstrate “institutional trust” by having unquestioning faith in the behind-the-scenes experts managing the system.

However, our glimpses into Sydney’s Mandarin-speaking residents’ views indicate that this infantilising approach does not work on people who understand that urban water is a manufactured product produced by fallible humans operating equipment in a ‘water factory’. People expect to be treated as adults capable of handling even unwelcome facts about water treatment or contamination.



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Below we list the key assumptions this research challenged, followed by a selection of recommendations - many of which came directly from participants - that point to more mature and reciprocal arrangements between the water service provider and water user desired by the participants in our study.

1. Drinking ‘bottled water’ was a sign that Mandarin speakers lacked trust in Sydney Water and its products. On the contrary, we found that a lot of the ‘bottled water’ drunk had been prepared by people who boiled tap water and carried it in their own water flasks. There could be issues of language and translation involved here, particularly in relation to data collected via survey instruments, as ‘bottled water’ could refer either to water purchased in plastic bottles, or to home prepared water. The preparation of water and the drinking of hot or warm water were resilient cultural practices that made people feel they were at home and looking after themselves and their loved ones.

The key recommendation here was that Sydney Water needs to diversify its representations of water drinking practices as a form of recognition and respect. A theme expressed in every focus group was the need for better understanding of Chinese customs and greater respect for people’s ability to make lifestyle choices, including boiling water for drinking:

I think (SW) just want to ask more people to use the tap water directly, not boiled, and don't buy bottled water ... I think the first thing they should find out if they want to recommend to the Chinese people, they should find out why Chinese people like to use boiled water (Hui)

A second recommendation was the need for more environmental enablers, such as clean water fountains in convenient locations to compete with the many more offers of expensive plastic bottled water in urban areas. There was also a suggestion that Sydney Water pilot a dispenser of cold, hot and warm water in a primary public location, such as a university campus.

2. That successful immigration means adopting the cultural norms and domestic practices of the host society. This assumption was implicit in the idea that people who didn’t directly drink tap water should be persuaded to do so. We found that while people became more tolerant of tap-water the longer they lived here, they also maintained — even for three or more decades — their pre-existing preferences.

This led to recommendations about conducting further cultural research and creating a space for ongoing social learning within the organisation to enhance the organisation’s capacity for critical self-reflection, including the use and evaluation of



new research. We had somewhat modelled this space in the Drivers of Trust project, by running social learning workshops on different topics to introduce some of our key principles to our partners, such as the theory of social practices or our critique of 'the customer'. The workshops provided an opportunity for members of the organisation to identify 'group think' and share ideas, knowledges and understandings in a space outside of the more tacit everyday operationalisation of institutional knowledge.

3. That it was acceptable for Sydney Water to enlighten, persuade, or tell people in culturally and linguistically diverse and unique communities (CALD) about what and how to drink. Top-down, one-way educational approaches from a single authority were questioned most strongly by those with Chinese backgrounds, who expected Australia to emphasise liberal democratic values, including respect for people's freedom and capacity to make lifestyle choices.

This led to recommendations about broadening the range of education, communication and participation opportunities, and communicating to different audiences with different voices and platforms. Many of Sydney Water's innovations in the sphere of communication and engagement, such as the Teas of the World campaign (<https://www.facebook.com/hashtag/teasoftheworld>) that recognises diverse cultural practices of tea drinking, are undermined by relying on platforms such as government websites and Facebook, which are not accessed by many of the people represented by our research.

Participants were keen for face-to-face communications and interpersonal encounters (Cipolla & Manzini, 2009) that model reciprocity, allow for dialogue and enhance trust. It was interesting that one participant referred to the focus group itself when we asked about preferred forms of engagement with the water utility that would elicit trust. In recent times utilities like Sydney Water have shifted to valuing 'face to face' communications as an important supplement to survey instruments like customer sentiment monitors, which perpetuate many of the assumptions challenged by our research.

4. That it was better for Sydney Water to promote water quality with images of the natural water source and to avoid representing treatment plants and pipes. Such a strategy is inappropriate for Mandarin-speaking residents, who thought of water as an industrial product, and wanted to know more about water quality control and hidden water infrastructures, especially pipes.

Recommendations here related to being more transparent about water treatment and putting more effort into reaching out to new arrivals. Again, interpersonal communications were raised as an important way to enhance civic trust. For example, discussion groups about water management, particularly in new residential



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areas, could assist to dispel problematic perceptions about infrastructure and to engage residents in potentially piloting new forms of co-management (community water trusts) (Hawkins, 2017b). Sydney Water has many opportunities to extend a welcome and invitation to new arrivals and tourists to learn more about the organisation, its services, and its plans, and to model more reciprocal forms of communication.

5. That everyone is a ‘customer’. This assumption limits strategies for engaging with and informing people who are not in a bill-paying relationship with SW, including international students, renters and apartment dwellers. Suggestions were made about re-thinking the category of ‘customer’ and developing more appropriate ways of communicating with non-customers. Recommendations included making more effort to disseminate communications like *Waterwrap* to renters and apartment dwellers, on the principle that such information should reach the water drinking public and not just ‘customers.’ This might involve developing a mobile phone app. As an extension of social learning, SW could hold a workshop with members of customer councils and business forums to revise and rethink ‘who counts as a customer’ so that customer segmentation more accurately reflects the multiple relationships people have with SW. Stakeholder mapping techniques or knowledge ecosystem analysis could facilitate this process.

Conclusion: future service relations for transforming government organisations

An emphasis on the ‘average customer’ as a target of information and marketing campaigns has helped entrench views of diverse minority groups as having barriers, obstacles or information deficits to adopting desired (or ‘normal’) water use practices. Our research overturns some of the prior assumptions about culturally and linguistically diverse communities and reveals Mandarin speaking Sydney residents as realistic about public water supply, and adaptable to using different water for different purposes.

Whilst small, this study with a group of Mandarin-speaking water drinkers residing in Sydney revealed profound problems with the current communication and engagement strategies of Australia’s largest water utility. While a confidentiality clause prevented the full report of the research and issues papers entering the public domain, it has appeared in Sydney Water’s Annual Report, in their Research and Innovation Strategy 2020, in an IPART (Independent Pricing and Regulatory Tribunal of NSW) submission and its impact on SW’s public education and customer



engagement strategies was presented at a recent industry workshop. It has also been circulated amongst members of the water utilities' peak body WSA (Water Services Association of Australia).

The take up of our research in Sydney Water's customer education and engagement strategies has fostered more diverse and inclusive representations. For example, the 'Teas of the World' campaign developed during our project emphasised people of different cultural backgrounds using tap water in 'culturally pure' tea drinking rituals, whereas the subsequent iteration of 'Teas of the World' emphasised hybrid cultures: a Chinese-looking older woman who speaks of enjoying going out for coffee while making traditional Chinese tea at home, or an Anglo-looking man in saffron Buddhist robes using an Italian espresso machine to make chai. Reflecting the emphasis on everyday water practices in this and earlier partnership research with Sydney Water, an 'Every Drop Counts' campaign showed water use placed in the contexts of diverse water practices around the home, reflecting different meanings of water use. Recent campaigns from other Australian government entities provide further cases of a shift away from the still-dominant behavioural approach to public education. The Cancer Council, for example, in their campaigns to reduce incidents of skin cancer by emphasising the dangers of UV exposure, has replaced didactic messaging with representations of diverse social and cultural practices in particular social settings such as the sports ground, outdoor construction site or public swimming pool. These examples demonstrate that the social and cultural diversity of Australian citizens is starting to show up in public service campaigns, and points to the value of social and cultural research in furthering this trend. Our claim is that social and cultural research in the water sector is critical in developing service relations that demonstrate cultural insight and respect, and afford civic trust.

The provisioning of water — whether by a utility or in the home — can be understood as a practice of care aligned with the cultural logics of communities in diverse societies like that of Sydney, Australia (Waite, 2018). In the case of our research, premigration practices such as the boiling and preparing of water persisted, regardless of how long people had lived in Australia, hybridising with practices more readily sanctioned by the utility, such as drinking water straight from the tap. In this case, communities were actively involved in 'requalifying' the value of municipal water to make it appropriately potable for themselves and their families. Contrary to CALD stereotypes, our research uncovered an informed, well-educated and interested community, who were keen to feel a part of and engage with the details of the provision of water services, even to participate in more reciprocal and collaborative relationships with the utility. Rather than bringing water drinking practices 'into line' with what is perceived as 'normal' in western urban cultures of



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service provision, our research suggests that diverse cultural practices and knowledges could contribute much to a utility which is itself undergoing transformation in response to climate pressures that have seen us oscillate between drought and flood in recent years. In this respect we are aligned with cultural researchers Sofoulis (2005, 2006) and Waitt (2018) who argues that “strategies for rethinking sustainable cities could glean important insights from the cultural capacities of ethnic diversity.” (274).

The idea that the way toward service excellence is to put the customer ‘at the heart’ of the way that companies run their business (Ofwat, 2016, p.3) has become an embedded principle in government service organisations all over the world. The findings of our study suggest that more nuanced and detailed social and cultural research is needed to understand hybridised cultures in Australia, with implications for everyday government service relations into the future. These services will need to feel fundamentally different to the past (LeWatt, 2022), utilising collaborative approaches that share power with citizens (McKercher, 2020) and moving beyond discrete communication or service translation issues. This includes building on the strengths of existing knowledge and cultural know-how, and extending trust in the ability of communities and service-users to exercise custodial responsibility over community assets like water. Social and cultural researchers are versed in modes of direct civic engagement and collaborative design that could inform these new service relations. It makes sense to explore forms of collaborative governance as systems of everyday resource use—including water, waste and energy—are undergoing rapid change from siloed to more integrated and clustered arrangements, including resource recovery, waste to energy and high-quality treated water, all of which will require new narratives about water from source to tap to drain. Sydney Water has recently revealed plans for a shift away from its 100-year-old identity as a provider of water services to a new identity as a resource manager in a ‘circular’ economy, with an advanced water recycling facility planned for 2030 in the new Western Parkland City, which is also where many of Sydney’s anticipated 3 million new residents will settle. This shift will entail different sorts of civic arrangements and new norms of fit-for-purpose water, for which, as our study shows, a growing number of Sydney residents are culturally primed.

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