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More than merely wicked: regulating sewage discharges and other unspeakable problems in environmental policy-making and planning

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***Abstract:** While the communicative turn in policy-making has encouraged the public deliberation of policy decisions it has arguably had a more limited impact on the ability of public processes to deal with wicked problems. Wicked policy problems are characterised by high levels of complexity, uncertainty and divergence of values. However, some wicked problems present the additional challenge of high levels of psychosocial sensitivity and verbal proscription. Because these unspeakable policy problems frequently involve a significant moral dimension, the regulation of intimate processes or bodies, and strong elements of abjection and symbolic pollution they are quite literally problems that we don't like to think about or talk about. However, the potential environmental and social impacts of these problems require that they be addressed. In this paper I present the preliminary findings of a research project focussed on the idea of the unspeakable policy problem and how its unspeakable nature can impact upon public participation and policy and environmental outcomes.*

Introduction

In what has become a seminal policy and planning essay, Rittel and Webber (1973) introduced the concept of wicked policy problems; an idea which has gained popularity in recent years as it neatly describes the challenges faced by today's planners and policy-makers. Broadly speaking wicked problems can be understood to occur at the intersection of policy problems characterised by a high degree of: complexity of elements and interdependencies; uncertainty of knowledge, risks, consequences and changing patterns; and value divergence (Head 2008) (figure 1).

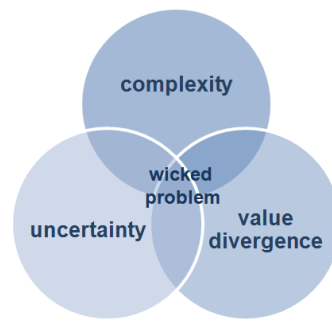


figure 1: Wicked problems as a function of complexity, uncertainty and value divergence
(Head 2008:104)

Viewed through the conceptual lens of wicked and benign or tame problems, policy problems which are defined primarily as problems of infrastructure provision are, generally, regarded as tame. Problems such as the management of sewage, particularly the provision of sewerage infrastructure, have traditionally been considered by engineering and planning professionals to be tame because they are “definable, understandable and consensual” (Rittel & Webber 1973:156). And though complicated, they appear to be readily solved through the application of appropriate technology, infrastructure and processes (Grint 2005:1473). Indeed, this very view of sewage regulation is advanced by Rittel and Webber (1973:156) themselves who note:

The streets have been paved, and roads now connect all places; houses shelter virtually everyone; the dread diseases are virtually gone; clean water is piped into nearly every building; **sanitary sewers carry wastes from them**; schools and hospitals serve virtually every district; and so on... But now that these relatively easy problems have been dealt with, we have been turning our attention to others that are much more stubborn.

The wicked problems they suggested attention be turned were considered, by contrast to their tame predecessors, to be socially complex, unstructured, unstable, cross-cutting, relentless, complicated and multi-causal with no clear solution (Weber & Khademian 2008).

At first glance it might appear that the regulation of sewage is, as Rittel and Webber suggested, a tame problem that has already been solved through the application of engineering technologies. Certainly, through most of the developed world, mortality and morbidity attributed to poor sanitation have been addressed through the wide-spread provision of water, sewer and other sanitation infrastructure. I make the case, however, that rather than being a tame and uncontested policy problem, sewage regulation is in fact a wicked problem that has in the past, and continues to, resist resolution. I also introduce the idea of sewage regulation as an unspeakable problem, defined as a wicked problem which is further complicated by high levels of verbal proscription and psycho-social sensitivity, and offer a way forward for dealing with such unspeakably wicked policy problems.

Context: Understanding sewage regulation as a wicked problem

Sewage regulation has a taken-for-granted cognitive foundation based on culturally supported belief systems and upheld by social mores and legal sanctions. However, because the modern solution to sewage regulation was developed over centuries, our current sewage management practices appear natural. Wicked problems like sewage regulation are:

[B]ased on a set of critical but unexamined assumptions, which define the boundaries within which the phenomena can be talked about, referred to, and within which solutions can be proposed. Such assumptions become part of the problem; they are not questioned or scrutinized, but are taken for granted. They become incorporated into personal thought and action as basic truths that reflect the ways things ought to be (Wallack 1984:474).

Upon reflection, however, they seem to make less sense, as demonstrated by Wendell Berry's (1995:1) observation:

If I urinated and defecated into a pitcher of drinking water and then proceeded to quench my thirst from the pitcher, I would undoubtedly be considered crazy. If I invented an expensive technology to put my urine and feces into my drinking water, and then invented another expensive (and undependable) technology to make the same water fit to drink, I might be thought even crazier. It is not inconceivable that some psychiatrist would ask me knowingly why I wanted to mess up my drinking water in the first place. The 'sane' solution, very likely, would be to have me urinate and defecate into a flush toilet, from which the waste would be carried through an expensive sewerage works, which would supposedly treat it and pour it into the river—from which the town downstream would pump it, further purify it, and use it for drinking water. Private madness, by the ratification of a lot of expense and engineering, thus becomes public sanity.

Sewers, for example, can be conceived of as an infrastructure response to a discursive struggle in which a certain construction of 'the sewage problem' and a corresponding solution prevailed at a point in history. Conflicting discourses have emerged over time in relation to the regulation of sewage. As a result, a range of different arguments about personal morality, commercial and class security, human health and environmental protection (both anthropocentric and ecocentric) have been contested with each dominating at different times. Their relative influence and importance has waxed and waned but never completely disappeared despite the prevailing belief that the problem has been solved. The complex normative and narrative foundations of the problem of sewage regulation ensure that there is no consensus about which norms and storylines are functional in this sense.

The regulation of sewage discharges from recreational vessels are particularly controversial, socially complex and plagued with uncertainty regarding the potential risks and consequences of different regulatory and disposal practices and infrastructures. As with the most persistent of wicked problems, the regulation of sewage discharges from recreational vessels presents unforeseen problems and externalities for which there is no definitive method of identification. Nor are there clear cut solutions to address them. And perhaps most difficult of all, this kind of sewage regulation has been beset with

extreme value divergence with different stakeholders seeking different management priorities and solutions.

As shown in figure 2, the regulation of sewage, particularly discharges from recreational vessels, has all of the hallmarks of a wicked problem (Rittel & Webber 1973, Conklin 2006, APSC 2007).

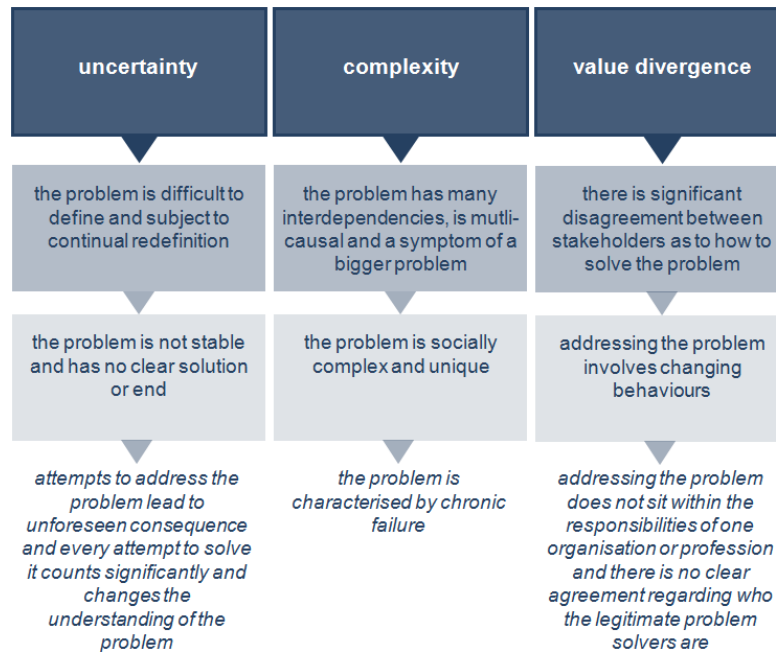


figure 2: Characteristics of a wicked problem present in the problem of sewage regulation

While we can establish that sewage regulation is a wicked rather than a tame problem, such a characterisation has limitations. Recognising sewage regulation as a wicked problem seems to explain only part of what is happening. What such an understanding fails to answer is why it is still easier to talk about sewerage infrastructure than sewage and even less easy to about excrement in the context of recycled water proposals, regulating the discharge of sewage from boats, or any other excremental policy problem. There is something else going on that wicked does not explain and would seem to suggest that excremental policy problems are beyond wicked, they are unspeakable.

Research Questions: Moving beyond wicked

This paper is part of a broader research project which considers whether unspeakable policy problems impact on policy-making processes, and if so, how? It specifically addresses three research questions.

Q1: What happens when the unspeakable is made the subject of policy making?

Q2: In what ways is the unspeakable discussed in such policy making processes?

Q3: How might different ways of talking about such policy problems impact on policy making and our relationship[s] with the unspeakable?

These questions are explored through the use of a detailed case study regarding the regulation of sewage discharges from recreational vessels.

Theoretical Framework: Unspeakably wicked

Some policy problems can be characterised as being merely wicked. Take for instance the complicated, messy and challenging problem of climate change. Beyond the scientific community, there is limited agreement on the nature, scale, causes and likely consequences of climate change and even fewer on its solutions. This situation and its potentially global impacts has even lead to some labelling the problem “super wicked” (Lazarus 2008) or even “diabolical” (Garnaut 2008). These issues and disputes form the basis of myriad articles in the popular and scientific press and have spawned numerous documentaries. The need to respond to or mitigate climate change is championed by most scientists and planners alongside some prominent politicians and celebrities. It is the subject of countless international conferences and conventions. As a wicked problem climate change may be far from resolved but it is certainly being discussed. However, some wicked problems are further complicated by psychosocial factors (Berry et al 2007) such as a significant moral dimension (Wexler 2009:531), the regulation of intimate processes and bodies, and strong elements of abjection and symbolic pollution. As a result, high levels of psychosocial sensitivity impact on the way that policy problems can be thought about or are reacted to. This can include the ways that these issues are talked about. With respect to sewage this involves a strongly negative evaluation of excrement and a low visual, olfactory, auditory and physical tolerance for it (Inglis 2001), if indeed any such tolerance exists in an increasingly sterilised western culture. As a result, these excremental policy problems are also often characterised by a high level of verbal proscription.

High levels of verbal proscription restrict the discussion of these problems as it generally requires that they be discussed in an abstract manner using euphemisms and circumlocutory speech. Some policy issues are unutterable because of their sacredness (particularly in relation to issues with a religious or spiritual element), but in the case of most problems, it is generally because they fall at the other end of this spectrum, the profane, and are judged as being indescribably or inexpressibly bad or objectionable and considered unfit or not permitted to be spoken of. With respect to sewage this means that such issues are considered unfit or not permitted to be spoken of because there is no accepted or acceptable language for discussing it and any references to excrement include a high degree of avoidance and indirect speech (Inglis 2001).

Understandably, the higher the levels of verbal proscription and psychosocial sensitivity the more problematic these issues can become. Wicked problems which have high degrees of verbal proscription and psychosocial sensitivity seem to be particularly intractable because they are quite literally problems that we don't like to think about and have difficulty talking about. Consequently, a combination of these factors can have significant impacts on the ability of these policy problems to be discussed in a fulsome manner, if at all. Wicked problems, like the regulation of sewage discharges

from recreational vessels, which exhibit high levels of verbal proscription and psychosocial sensitivity have a tendency to become unspeakable (figure 3).

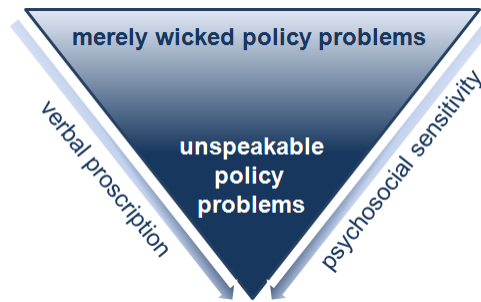


figure 3: Unspeakable problems as a function of verbal proscription and psychosocial sensitivity

Policy outcomes, such as infrastructure and laws, can be “understood as a sort of echo that reflects the winners of past discursive struggles” (Sharp & Richardson 2001:200). A discourse is a particular way of representing some part of the physical, social, and psychological world. There are alternative and often competing discourses at any given time. These discourses differ in how social events and phenomena are represented, what is included or excluded in these representations, how abstractly or concretely they are represented, and how different social actors and relations are represented (Fairclough 2003:17). Historically, the timing and form of sewage management practices and infrastructure have been inextricably linked to the prevailing discourses of the time which reflected ideas about health, the environment and excrement more generally (Melosi 2000).

Such an understanding suggests that excrement is not merely a by-product of bodily functions. Rather, it poses both a physical and a psychological threat and carries a symbolic load (Douglas 1996:3) which involves concepts such as purity and risk which are “constructed through historical, anthropocentric, and socially created measures” (Keeling 2004:70). As a result, talking about sewerage, sewage or excrement is more than scatological semantics; there are political and practical implications to the way each is discussed and the extent to which they can be legitimately discussed within policy-making.

As shown in figure 4, because excrement is so negatively charged in Australian society, verbal, olfactory and physical encounters with it elicit feelings of disgust and embarrassment; even perceived or imagined contact with it causes offence. This high degree of psychosocial sensitivity makes it difficult for excrement to be the subject of policy-making because it involves a correspondingly high degree of verbal proscription as can be evidenced in recent debates concerning the recycling of wastewater or the disposal of sewage waste from outfall pipes or boats.

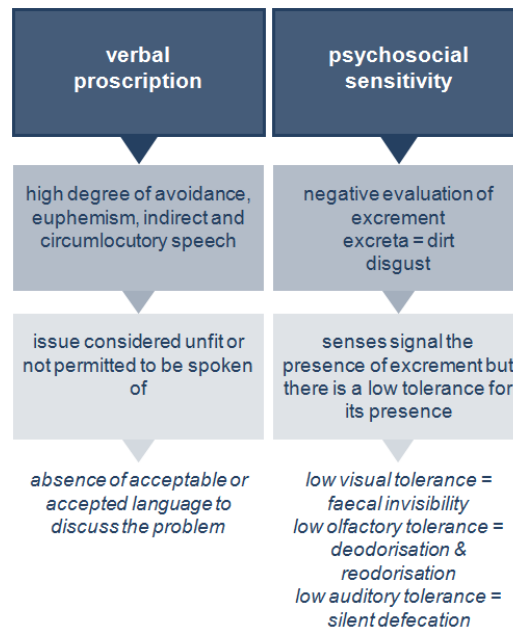


figure 4: Characteristics of an unspeakable problem present in the problem of sewage regulation

Methodology: Interrogating the unspeakable

The research was based on a case study regarding policy-making for the regulation of the discharge of sewage from recreational boats. The case study focussed on a fifteen year period covering the introduction of the Marine Pollution Bill into Queensland Parliament in 1994, a legislative review process which resulted in significant changes to the *Transport Operations (Marine Pollution) Act 1995* and the regulatory regime adopted by the state through to the implementation of compliance activities relating to the revised legislative position. Case study research is particularly appropriate for exploring wicked problems because every wicked problem is “uniquely grounded in time and space” (Brown 2010:109).

Data was collected using a variety of source materials including interviews with key policy officers, media reports, Hansard records, key policy-making texts, public submissions to government public consultation processes and other consultation records. Analysis was undertaken using a form of interpretive policy analysis (Yanow 2000) and informed by critical discourse analysis (Fairclough 2003). Figure 5 shows how the data collected was used to construct the case study and analysed to answer my research questions.

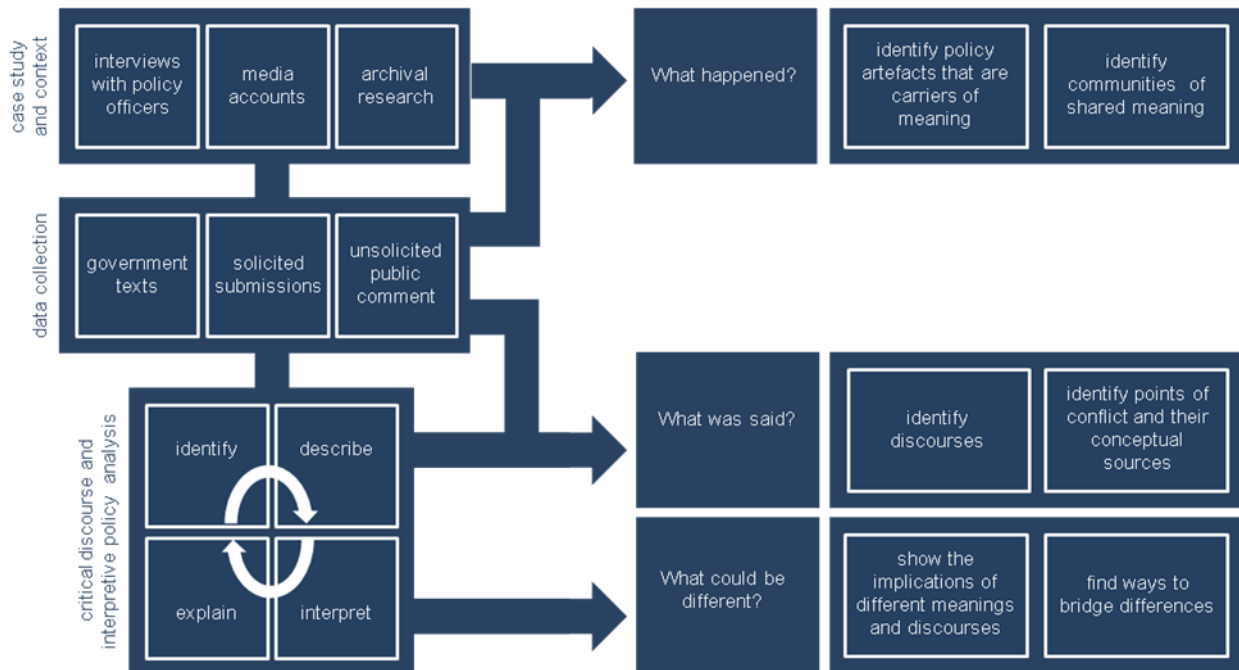


figure 5: Data collection and analysis

Findings: Accounting for the unspeakable in policy making

It has been argued that wicked problems often generate heated controversy (Wexler 2009:534) and that these debates are often simplified into competing stories which emphasise different aspects of the problem, with each story tending to define itself in contradistinction to competing policy stories and solutions. Consequently the stories' proponents are unlikely to agree on the fundamental causes of and solutions to the problem, leaving "the policy maker with a dynamic, plural and argumentative system of policy definition" (APSC 2007:5). However, the discursive construction of issues and problems may be invisible to us unless we pay specific analytical attention to these processes (Maddison & Denniss 2009:130). The way we talk about a policy problem reflects our underlying attitudes and beliefs about the problem, which both define the problem and shape possible solutions. But this wicked situation is exacerbated if the problem can't be talked about because there is no acceptable language for discussing the problem and a societal repugnance of the issue at hand. Andrew Brennan (2009:50) notes that, if is true, that that which cannot be named cannot be legislated; unspeakable wicked problems become beyond the rule of law.

Despite their presence in our daily lives, unspeakable problems are not, by their very nature, something that we like to think about let alone talk about. However, the way that we talk about a policy problem has a strong relationship to the ways we can think about it and relate to it and the range of policy and other solutions that we can both conceive and enact. The language of policy making and the way that a policy problem is defined and framed can impact on how effectively this happens.

As shown in figure 7, my analysis to date has shown that it is relatively easy for policy-makers and the public to discuss *sewerage* [the infrastructure used to transport sewage] problems because they are considered to be tame problems dominated by the engineering and economic discourses of pipes, pump-outs and holding tanks. *Sewage* [effluent carried in sewerage systems] problems are less easy to talk about in policy-making but can generally be discussed using scientific and environmental discourses particularly in terms of effluent quality and potential ecological or public health impacts of sewage discharges. By contrast, the *excremental* [actual waste matter discharged from the body] component of policy-making on these matters is more difficult to discuss because there is no acceptable language to discuss them and such discussions tend to be dominated by disgust and invoke a morality politics (Mooney 2001) based on emotions and values which are difficult to accommodate in policy making. As such they become unspeakable.

	sewerage	sewage	excrement
definition	infrastructure used to transport waste (primarily sewage)	combined excrement, water & effluvia in sewerage system	waste matter discharged from the body, esp faeces
speakability	spoken & speakable	unspoken but speakable	unspeakable
proximity to source	distant i.e. pipes and infrastructure	semi-distant i.e. mediated by infrastructure	proximate i.e. not mediated by infrastructure
nature of problem & solution	public problem solve with infrastructure	public problem solve with technology	personal problem solve with behaviour change
responsibility	government responsibility	collective responsibility	private responsibility
degree of control	means of control	controllable i.e. control effluent characteristics/quality	uncontrolled, uncontrollable and out of control
primary discourses	engineering and economics	scientific and environmental	disgust
dominant element	material	practical	symbolic

figure 7: More than scatological semantics

Recommendations: Reimagining the unspeakable

Good policy making requires the acknowledgement of conflicts, paying focused attention to psychosocial factors, and expanding professional and public discussion of the policy issues involved (Goldman 2004). Because wicked problems are imperfectly understood it is important that they are discussed by all relevant stakeholders in order to ensure a full understanding of their complexity (APSC 2007:27). Reflecting on the talkback radio discussions regarding the etiquette of toilet flushing that accompanied severe water restrictions in Sydney and other capitals, Zoe Sofoulis (2005:450) notes that “[t]his kind of public discourse about normally unspoken habits around privacy, sanitation and waste may contribute more to long-term change in water use habits than do ‘emergency’ water

restrictions". While this can be difficult due to its sensitive nature it can also be a way of drawing attention to important issues as occurs during the annual World Sanitation Day events which use scatological art to prompt and promote discussions about sanitation issues (Grant-Smith 2010).

While my work focuses on a specific subset of wicked problems—unspeakable problems—my research may have broader application to begin to understand a range of other unspeakable themes that often find themselves the subject of morality-based environmental policy-making and planning such as water recycling; the siting of prisons, asylum centres, nuclear waste facilities, half-way houses and brothels; and the consideration of broader sanitation issues.

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