

The Policy Learner's Gaze: Between the Mirror and the Horizon
Draft for Workshop T01W09: The causes and effects of policy learning

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ka mura, ka muri

a Māori proverb meaning, in essence, we walk backward into the future with our thoughts directed toward the coming generations and our eyes on the past

Abstract

Policy learning entails real-time updating of knowledge and beliefs in the context of a presenting situation. When that situation requires a belief to be formed about an hypothesised future policy outcome, a learner draws on—as per a general definition of learning, as well as widely held views about evidence and professional practice—an accumulation of prior analyses, experiences, along with interactions and fresh signals from the present context. However, in addition, the learner makes judgements informed by looking prospectively at what may be. This paper considers how a learner forms actionable beliefs about the resolution of practical policy problems, attending specifically to learning at the pivot point between what is known from the past or knowable in the present and estimates of the future. A simple scenario with one policy professional and one policy recipient provides a scaffold for considering practice-based learning for judgement in non-routine, uncertain and ambiguous situations.

Introduction

Setting the scene

Consider learning in a practical, if skeletal, policy-relevant problem situation that serves as an analogue for many policy decisions. A public professional first gauges some available information (a) and then makes a subsequent decision with the aim of improving some aspect of the public good (b). For example, a child is brought seriously injured to an emergency room by a caregiver who admits to inflicting the injuries (a). Social work professionals decide what (if anything) must be done to ensure that the child is protected from another incident (b).¹

Contemporary government practices seek to transfer the burden of learning to data processing systems. Human actors, such as social workers, consult these systems, which are updated iteratively and incrementally with the facts of the decisions (a) and (b) reached by such actors. For example, in New Zealand accumulated data on children's risk factors and outcomes is used to predict which risk factors and combinations are associated with bad outcomes, and which children are responsive to which interventions. The system 'learns' as data is added, better enabling a 'match' between a child to an intervention using data on risk and intervention characteristics (Wolf, 2017b). Rae and Erasmus (2017) report that the New Zealand Police and child welfare agency receive about 100,000 reports annually of alleged child abuse or neglect. Of these, about 40% are referred for some type of follow-up. A call-centre handler must make a decision under some time pressure, and often with incomplete information. Rae and Erasmus estimate the accuracy rate is about 60% (2017, p. 10). Given the possibility of significant numbers of false positives and false negatives, learning is clearly essential. System modellers seek to refine the detection of risk. Evaluators seek to refine understandings of

¹ There are, of course, and for very good reasons, a number of 'checks' on social workers' conclusions.

which interventions work for a given risk profile. Yet, significant limitations will remain. Whereas numerous decisions are increasingly automated, such as traffic calming systems and selecting tax returns for audit (William Webster, personal communication, 31 August 2016), the complexity of child abuse situations renders decisions about them unsuited to full automation.

I have framed the opening example somewhat unrealistically. It is hard to imagine a decision in which there was no follow-up monitoring of the child's care situation and it is easy to imagine a thorough investigation and at least a temporary separation of the child from the caregiver. Even so, (1) professionals' objective observations (for instance, of physical injuries) may be consistent with several explanations (intentionally or accidentally caused), (2) information sourced from people like the caregiver may be genuine ('I caused the injuries') or deceptive ('I am saying one thing, but as cover for the actual guilty party'). Both related to such 'diagnostic' challenges and due to additional complications, (3) the 'next step' may be factually and ethically ambiguous.

The example describes a professional *practice* situation. In general, a focus on peeling back the layers of practice to the underlying learning may be overlooked in current scholarship (Dunlop & Radaelli, 2017, p. 307). This may be because it is difficult, or even more fundamentally, because learning is subsumed by the supposed obviousness of professionals simply getting on with their work. Held only to an expectation to exercise professional responsibility appropriately, any learning becomes a "matter of common sense, if not existential necessity. . . . naturally and inevitably as an effect of being in the world" (Freeman, 2007, p. 477). Consequently, looking into the learning practices of professionals resembles 'navel gazing', when effort might be better spent in less abstract pursuits. Nevertheless, before high expectations for data processing succeed in obviating interest altogether in examining learning more closely, it would be good to be aware of any opportunities to learn, and so to improve people's wellbeing. In particular, if learning is an effect of being in the world, as Freeman casts it, then attention is needed to how professionals participate in learning, and thus are 'present' in the learning occasion. In this paper, my particular concern centres on learners at the point of moving from ascertaining (a) (what is) to deciding on (b) (what to do next).

Policy learning

Core ideas about policy learning, with rich and varied amplifications emerged nearly 30 years ago (Sabatier, 1987; Rose 1991; Bennett & Howlett, 1992; May 1992). The terrain now takes in policy transfer, social learning, diffusion and convergence, and policy experimentation (Newig, et al., 2016, p. 353). Policy learning lies at the heart of the impulse to look elsewhere for bright ideas (Rose, 1991, 2005; Bardach, 2004; Barzelay, 2007).

As a subset of learning in general, policy learning touches on challenging and enduring concepts and reflections on the human condition. For example, how is it that, more often than not, humans are able to reach collective action decisions that are conducive to overall wellbeing in the face of uncertainty? Clearly, learning draws on 'experience', but how precisely, especially given the complexity of the human condition? An equally slippery matter concerns what is involved when a learner pivots between a past that is 'known' (through experience or second-hand) and a future that can only be anticipated, in order to decide a course of action. Setting aside learning to satisfy a curiosity, my focus in this paper is learning that helps to resolve a practical policy problem.

Practical problems, like the one sketched above, are "problems that demand an action because they take the general form 'what should I do now, in this situation, facing these circumstances?'" (Schwandt, 2014, p. 232). As Schwandt and others (for example, Shoter & Tsoukas, 2014; Munro, Cartwright, Hardie, & Montuschi, 2017) elaborate, resolving practical problems requires judgement, reflection, wisdom—that is, a host of capabilities that draw on logical, analytic systematic reasoning with stable information, but are not fully explained by those processes. In some non-trivial ways, this is because the resolution to a practical problem lies in the future, is most likely very specific to a time

and place (“in this situation”, as Schwandt emphasises), involves ethical and factual ambiguities, and necessarily concerns the person doing the reflecting and judging, and therefore, all that the person brings to resolution of a problem. Although resolutions of practical problems may not be gauged solely according to analytic rules, on the evidence of the continued survival of humanity, the appropriateness of resolutions can be assessed, their flaws can inspire better resolutions ‘next time’, and individuals can become better learners.²

Yet, policy learning confronts a large obstacle. As the epigraph reflects, people can only look back—on other children whose risk patterns are like the presenting child and on the outcomes of interventions in situations and for children who are like the presenting child. But this child is not back there, but here; and the outcomes are not historical, but yet to transpire, so thinking must be cast ahead. Policy learning is an exercise in matching the ‘known’ with the ‘likely’ in the context of uncertainty and ambiguity. Learning has to happen, at least in part, from something that has not yet transpired. How is this done? Simply stated, people offer something that ‘machines’ entirely lack, and that is a natural ability to anticipate. This ability renders people able to judge and act, sometimes with poor results, but more often than not with better ones.³

Currently, however, under the thrall of progress in ‘evidence-based policy’ approaches, human judgement gets short shrift, disparaged as biased or subjective. Some scholarship on policy learning acknowledges that practical, judgmental and non-cognitive elements are unavoidable, but on the whole, tends to frame these vis-à-vis an evidence-centred position. For example, Nair and Howlett (2017) provide an excellent discussion of ways to control and manage uncertainty due to the future orientation or policy making, and thus to correct for ‘policy myopia’. In this regard, technological advances promise ever clearer vision, by reducing the blind spots in any one perspective, alerting viewers to subtle associations or patterns than might be overlooked in the normal application of heuristics, and so on. However, myopia correction is not all: As with the human analogue, perfect policy vision does not see everything. Some facets of the future cannot be seen. In addition, and perhaps more crucially, again analogous to the correction of human vision, even if two people have the same visual acuity, they may not see the exact same scene. In short, policy learning is not adequately understood when approached as an evidence-handling enterprise (Sanderson, 2006; Schwandt, 2000). Against this background, this paper seeks to rehabilitate judgements informed by non-analytic learning, specifically about the future, not to replace ‘evidence’ (which strictly speaking is not available about the future),⁴ but to clarify how qualities of everyday learning aid professional policy decisions.

Although concentrating at the level of ‘everyday’ and individual decisions, the argument can be transferred analogously to larger and collective policy decisions. There are assuredly more complications entailed, but practical problems retain their core features. A single decision maker (such as a social worker) maps to the social welfare agency; a decision with respect to the care and protection of one child maps onto systems for treating categories of children. Despite what may seem a much greater reliance on ‘evidence’, larger problems do not become technical problems when they

² Learning from mistakes is institutionalised widely; social workers regularly undertake reflections and peer reviews. Yet there seems to be less attention to *connections* between institutional knowledge management and the fine-tuning of professional judgement. Exceptions include Gordon (2011) looking at the interaction of criminal detectives’ insights and Police systems and a trial in Wales among social workers to use real-time information to trigger and check initial judgements (David Snowden, personal communication, 30 August 2017).

³ A robust literature backs claims that people, including experts, are poor judges (for example, Tetlock, 2005). The contrary claim is one of logic: if bad decisions always slightly outweighed good ones, then humans would fail to thrive.

⁴ This statement is based on common definitions of evidence as “the available body of facts or information” or similar. At best, a decision maker may have a “body of information” available for use in the present time that provides estimates of facts about the future.

are collectivised. Even a single intervention that affects an entire country (such as a rise in the national bank's inflation target) play out in individual lives.

The argument builds on earlier work (Wolf & Baehler, 2017), which examines how learners in a given situation can become attuned to a learning need and exercise their expert judgement to discover or generate transferable lessons from one policy context for application in another. The focus was on discerning a 'lesson' using a case from the past compared with a prospective case, in which an adapted version of that lesson is imagined to be in place. This type of learning was further detailed in Wolf (2017a), in which the specific focus was on the interaction between a policy learner and a policy recipient in the course of working out a suitable intervention.

The current discussion shifts the focus to the pivot-point in present learning situations, between the past and the future, with a particular aim to emphasise the future. It seeks to theorise the naturalness of prospective learning in practical policy situations. At the pivot, the past and present come into contact with an unfolding future, in which an "actionable understanding" is informed by a constantly renewed past, directed at an always partially decipherable future, and situated in a present that is 'eternally unfolding'" (Cook & Wagenaar, 2012, p. 18) and at least is some key respects, "bewildering". In a bewildering situation, Shotter and Tsoukas (2014, p. 379) assert, learners "initially know not what to do, but [. . .] they come to resolve on a best or right line of action, which gradually (like achieving a visual fixation and focus) becomes clear to them".

The next session considers learning and its 'everyday' manifestations. Following it, I set out the mirror-horizon scenario, using the metaphor of driving a car, in which the driver is guided by information from both the rear-view mirror and ahead along the road. Attention then shifts to what is going on inside the car between a representative policy professional and policy recipient. With an emphasis on 'looking ahead', I introduce some ideas from Gadamer, loosely connected with professionals' and recipients' 'horizons'. A final substantial section on the concept of 'practice wisdom' clarifies the combination of the analytic and non-analytic in policy learning.

Learning, situated experience and expertise

Learning entails the "reflexive updating of beliefs based on evidence, experience and new information" (Newig, Kochskamper, Challies, & Jager, 2016, p. 354), as well as on "analysis or social interaction" (Dunlop & Radaelli, 2013, p. 599), "involving a sequence of activities" (Ettelt, Mays & Nolte, 2012, p. 492). Learning theorists identify some general components of 'learning', which in their generality may be expected to be at least implicit in considering policy learning (Hermans, 2011; Ettelt, et al., 2012; Bengtsson & Hertting, 2014; Botma, van Rensburg, Coetzee, & Heyns 2015; Hildebrand, 2018):

- a learner prepares to learn by activating existing knowledge in the context of a learning need;
- selects or receives information and engages with it in some way; and
- applies the outcomes of that engagement.

Experience and expertise bear significantly on learning. Dunn (2011) suggests that in the absence of adequate projections and predictions about the future (based on trends and theory, respectively), policy makers may turn to the 'conjectures' or guesses of experts, who are deemed somehow able to use their accumulated experience to discern a way forward.⁵ Collective everyday experience underlies

⁵ Some writers introduce the term 'foresight', usually in the context of what Dunn (2011) would term conjecture, distinguished from the 'possible' of prediction and the 'probable' of projection, by the characteristic 'plausible' that is the result of some 'expert' consideration (of a range of information, including predictions and projections).

various futures methods, such as scenario planning and policy Delphi (United Kingdom, 2014). Similarly, participatory processes seek at some level to use everyday expertise to broaden the scope of decision making and to help counter tendencies for blinkered or optimistic views of the likely fate of a policy. But this framing assumes that the goal is to place better information in the hands of another decision maker: it converts ideas about the future into present ‘evidence’, to be combined in ways that allow the decision maker to derive probabilistic estimates. It loses the connection that everyday learning offers to a pragmatic need to act, despite uncertainty and the ambiguity created by incomplete or inaccurate knowledge and conflicting values. In other words, we need to consider what it means for a learner to draw on and accumulate experience, such that an expert is in a position to offer a ‘conjecture’ with some degree of confidence. Because learning is tied to experience, and because experiences vary, everyone has “different ways of seeing situations and constructing the world”, which are in turn influenced by background and social conditions (Kinsella, 2012, p. 43). Everyday learning thus operates on a selective field in which part of the past is present according to what the situation appears to require (Hildebrand, 2018).

Everyday learning may be more or less tacit. Polanyi (1966) defined tacit knowledge as that which is neither initially analytical nor cognitive and is found in the act of doing. Tacit learning may only be guessed at by comparing sequential actions (O’Sullivan, 2005). Alternatively, the learner may explicitly and systematically engage in what Schön (1983) calls ‘reflection-on-action’. Such reflection is a manner of judging. It requires a learner to confront some difficult problem, to grasp some knowledge that is uncertain, but to nevertheless form a conclusion that can inform action (O’Sullivan, 2005). Looking more closely at the depth and breadth of knowledge in the context of a “unique client situation”, Klein and Bloom posit that a practitioner, such as a social worker, develops interventions building on previous experiences with other clients, from which commonalities are “intuited” and combined with an “empirically validated knowledge base”, and in so doing, “experience-driven practice knowledge pushes beyond what is known in a logical deductive sense” (1995, p. 801–802). It involves “the intelligent use of one’s mind and body together in response to the outer environment” (Cheung, 2017, p. 622).

This type of learning accords with Freeman’s constructionist conception of learning, which takes an everyday sense into the domain of policy learning:

For the constructionist, learning begins with practice. Problems, policies, knowing, and learning are all “situated” or defined by their context: Learning is rooted in pragmatics. Where the rationalist assumes that knowledge and practice are separate, for the constructionist knowledge comes about through practice. Policy learning is a process of fixing (in the dual sense of both repairing and holding) and innovating. (Freeman, 2007, p. 480)

In the next section, I use metaphor and a basic scenario to provide concreteness to the discussion. Like any metaphor, mine can be stretched too far, and all scenarios are selective. But like the very themes they help to discuss and illustrate, they set up an engagement of ideas that goes well beyond the words on the page.⁶

⁶ Dunlop and Radaelli (2017) remind us of Hecló’s metaphor, which draws attention to the setting for social learning and its “cobweb of interactions”, which is not fundamentally different from my car metaphor: “a maze where the outlet is shifting and the walls are being constantly repatterned; where the subject is not one individual but a group bound together; where this group disagrees not only on how to get out but on whether getting out constitute a satisfactory solution; where, finally, there is not one but a large number of such groups which keep getting in each other’s way.” (Hecló, 1974, p. 308). For tractability, my scenario unrealistically leaves out the fact that other policies and people are part of the contextual environment and that a single decision can affect many people.

Scenario: Driving the car

For a suitable context, consider a child-protection agency, such as New Zealand's Oranga Tamariki–The Ministry for Children,⁷ which seeks improved child wellbeing by combining 'objective' knowledge about the past and estimates of the future with the judgement of policy practitioners. In particular, the agency is tasked with reducing child abuse. As introduced above, one task may be to decide which notification of alleged abuse should be pursued. These decisions, as indeed all decisions to change a policy generally, (for government to seek to cause some reasoning, activity or behaviour to stop or start) are based on imperfect knowledge: call centre staff, or any other decision makers, are unable to fully predict the future, and any estimates of the future are subject to uncertainty.

Imagine a car travelling fast along a challenging road. The driver is a *policy professional*, representing the combined functions of assessing a need for an intervention, choosing one, and implementing it. Accordingly, the driver has some external motivation to serve the public good. As a social worker at Oranga Tamariki, the driver has expert knowledge in political, technical, legal, and substantive theory relating to that specific role, and has accumulated understanding of outcomes from various interventions in varying conditions.⁸ The passenger is a *policy recipient*, presenting with a need that a policy intervention will help to satisfy.⁹ The recipient (and others in the recipient's social environment) has expert knowledge of their own life course and its situation and has accumulated some understanding of their experiences. Consistent with modern theories of governance, both driver and passenger have roles to play in safely navigating to the destination. However, we centre attention on the driver, as learner, and somewhat less on the decision that is reached.

Using the rear-view mirror, the driver has access to information from the past. The mirror represents 'evidence' as used in policy discourse. Conveying the state of evidence on typical policy matters, we imagine that the mirror is foggy, with blind spots. Ahead lies the passenger's destination, a need satisfied. Looking through the also somewhat foggy windscreen, the driver and passenger can see an ever-changing vista, complete with a horizon where various roads meets the sky. While initially the destination is too far away to see and the maps are poor, the car needs to keep moving ahead. Safely delivering passengers to their future wellbeing depends on being able to see the road and destination as clearly as possible. The drivers must maintain vigilance to avoid diversions and dangers in the road. And the set of destinations on the horizon moves as the car does.

Much is known about learning from evidence, projections and predictions and research on the cognitive capabilities of the learner. Some learning prescriptions would call for putting the car on autopilot (using 'big data' analytics) or training a telescope on the future (improving the use of scenarios or predictions) or cleaning the mirror (making better evidence available or detecting its patterns more clearly) or better training the driver (to be more discerning in extracting meaning from available information). But learning is not just a matter of skill applied to information. What the

⁷ Oranga Tamariki was established as a stand-alone ministry in April 2017, incorporating a range of services that had been provided by the Ministry of Social Development. "It has high aspirations for all children and addresses their short and long-term wellbeing and supports their transition into adulthood. It focuses on five core services – prevention, intensive intervention, care support services, transition support and a youth justice service aimed at preventing offending and reoffending". Using a Māori term, 'oranga tamariki' points to the wellbeing the agency seeks for all children, bearing in mind that children are "descended from greatness. . . . [and] born with an inherent mana that can be damaged by abuse and neglect." (Oranga Tamariki, n.d.)

⁸ The learner probably has some relevant credential following formal education and skills training; probably "knows more than he can tell" (Polanyi, 1966) from some years on the job; is moderately networked with similar and complementary professionals within an organisation and professional circle (i.e., belongs to an epistemic community, as per Sabatier 1987); and is moderately motivated to deliver on assigned tasks, but has neither sufficient time nor budget to fully complete most tasks.

⁹ For consistency, the recipient would be the child about whom a notification has been lodged. But to avoid complications, we imagine a generic social welfare recipient (or perhaps a child's advocate).

driver ‘detects’ is also a function of varied experiences; cultural resources; embodied, tacit and explicit expertise; and abilities to reason analogically, embrace and ‘read’ complexity, and select hypotheses worth pursuing.¹⁰

As time passes, new information comes to light that can affect the direction of travel. The driver may have time to stop the car and reflect, or even circle back to look again at something initially passed by. As the journey progresses, the driver naturally confronts and copes with signals from the surroundings, constantly scanning the road ahead, taking present action that affects the future options. Within some modest limits, the driver can visually see what is in front of the car. We are also interested in the relationship inside the car. Both the driver and passenger want to move from the current situation to a preferred one. They can compare what they know from experience and what they see—illuminating the road with their natural ability to extend their perception into the future.

The basic scenario can be represented as a learning trajectory, with both spatial and temporal dimensions. The epigraph signals attention to the ‘gaze’ of the driver as learner, and what is both enabled and constrained by the human condition. A learner—conceived here as a policy professional who learns by “[updating] beliefs based on lived or witnessed experiences, analysis or social interaction” (Dunlop and Radaelli, 2013, 599) cannot actually see the future when judging the wisdom of some present policy decision. A specific decision or task requires a learner to work both retrospectively and prospectively. With this metaphorical focus on the gaze of the human eye (everyday, real-time learning), the experience and expertise of an active learner is privileged, drawing attention to the ways humans link moments to form narratives. Whereas it is common to distinguish between what is objectively known and knowable and what is suggested to intuition, with research treating only one or the other with a bare nod to the counterpart, practice accounts show the mutually informing interaction as the norm.

Inside the car: Looking in the mirror

Evidence, as used rhetorically in the ‘evidence-based policy’ literature, means something like “information that is used to provide support for a conclusion” (Munro, et al., 2017, p. 1). Thus, evidence-based policy is held to require that decision makers inform themselves selectively with the best possible information on what is ‘known’ about the world and policy interventions, thereby establishing a solid platform for estimating the effects of policy changes.

However, in practice evidence is usually taken to describe a more limited set of information—findings of empirical research—and not ‘best possible information’ (Munro et al, 2017, p. 3). According to Freeman, evidence fits a ‘rationalist’ approach to policy learning, in which “the relationship between a problem and a policy may be formulated in terms of an explicit theory of cause and effect, which will then be applicable to other similar instances of a problem” (2007, p. 478). Moreover, this type of learning forces a forensic examination . . . of the logic and content of policies, and how these link to outputs” (Dunlop & Radaelli, 2018, p. 259). This cause-effect modelling underpins the lesson-learning approaches of Rose (1991, 2005) and Barzelay (2007). In all cases, proponents assume that causal understandings apply not only to what has been but to what will be (Wolf & Baehler, 2017).

Two recent developments are designed to further enhance the use of evidence in linking causes to effects. First, with ‘big data’ and experiments adhering to the behavioural insights mantra “test–learn–adapt” (Haynes, Service, Goldacre, & Torgerson, 2012), there is no need to understand how and why effects are produced; it is sufficient to know that there is a linkage between some policy and an effect. Second, social investment and other actuarial-influenced learning approaches have been made possible by advances in data analytics (National Academies, 2016; New Zealand Treasury, 2016).

¹⁰ The driver will also be more or less academically informed, and thus more or less interested in the existing theoretical knowledge base.

This matching approach seeks to prescribe the best available intervention to every individual requiring policy attention, and to use a range of analytic efforts continually updating estimates of likely outcomes from interventions.

Evidence is limited and uncertain, even in the context of big data and actuarial predictions, as has been widely recognised. Complexity and the future limit the ability of evidence to show cause and effect relationships (Wolf, 2017b). Statistics only approximate ‘reality’. Numbers make some things clear at the expense of the richness and complexity of the world, the “messiness of the human predicament (Sanderson, 2006, p. 116; Nowotny, 2016). Munro and colleagues (2017, p. 5) warn that “a failure to deal with the complexity of causality increases the risk of exposing families to ineffective and potentially harmful interventions as well as increasing the risk of wasting money”. They continue:

Families are not machines and intervening in their lives has numerous repercussions, both good and bad, intended and unintended. Therefore, there is no simple way to use research to make predictions about what will happen nor a simple way of administering a social intervention. . . . [social workers] also need to find a way to grapple with the complex and open causal processes that will determine what happens. (Munro, et al., 2017, p. 5)

Recognising complexity does not require abandoning empirical evidence. It requires acknowledging that new policies interact in the environment (which includes existing policies) in ways that can lead to unexpected and unwanted consequences, especially compared with assumptions underpinning research, and its technical and contextual choices. But in addition, it is necessary to recognise the degree to which evidence must be complemented by the user’s judgement:

While of course we would like to have at our disposal the best general, scientific knowledge we can acquire, the corrigibility, ambiguity, and circumstantiality of everyday evaluative judgement cannot be eliminated, replaced or refined by relying on scientific method and its associated rationality. (Schwandt, 2000, p. 228)

Especially when considering foresight or conjecture, it is clear that estimates are not solely a result of analysis of data or information. They involve reasoning from wider types of information. Social workers, for example, make judgements drawing on “what they themselves have seen and heard, on their local knowledge, on theories, on observations that others, including family members, have reported to them and on the opinions of others.” (Munro et al., 2017, p. 1).

Together, complexity and a future focus point to a need to rebalance attention and to allow judgement its due in theories of policy learning, as well as allowing a broader range of information to count as evidence. In large part, rebalancing would correct some assumptions about evidence. For example, it is widely held that the limitations from complexity can be addressed by “more sophisticated forms of analysis and technical aides to decision making, in order to maintain control” (Sanderson, 2006, p. 125). This is like polishing the rear-view mirror, but it does not change the fundamental viewpoint. Moreover, Nowotny (2016) argues persuasively that an increase in knowledge is often accompanied by greater uncertainty: getting a clearer image brings into focus more variables to wonder about, more relationships to consider. The urge for ‘more and better’ data analysis is based on a fear of the subjective bias of human judgement. Decisions reached by algorithms with big data or by actuarial models, convey that it is better to take the driver’s hands off the wheel. The urge to rational, empirical methods relatedly masks the judgements used in those methods. Milojević and Inayatullah use the example of a child-intake decision support system (ostensibly objective and quantitative), to claim that rather than a selection of variables about a child, the data “create a story that conveys a plausible hypothesis regarding the outcome of the child in focus” (2015, p. 152). Put differently, the social worker connects the spaces between the several ‘facts’ that may be available about a child in order to create a unified whole; they do not make decisions on the disconnected, disembodied collection of data points.

Inside the car: Looking ahead

Indigenous traditions provide numerous examples of the capacity of people to see ahead and adjust their course of action, based in part on accumulated cultural and embodied knowledge, in the form of stories or pictures. For example, Prendergast Tarena (2015) writes, “The phrase ‘seeing the island’ was used often by the Hawaiians to describe a destination they had yet to reach. Our navigator ancestors had to picture their island destination in their mind before setting sail”. Prendergast Tarena evokes a journey analogy for any action undertaken without fully knowing what it will entail. This ability was recognised by Whitehead, who noted that people are able to “see through the apparent confusion, to spot developments before they become trends, to see patterns before they emerge, and to grasp the relevant features of social currents that are likely to shape the direction of future events” (Whitehead, 1967, p.89 in Sarpong & Maclean, 2016).

People can try out possibilities in their ‘foresight’. With foresight or anticipation, understanding for decision is oriented to the link between what is now known and the future. To anticipate is to glance forward to what may plausibly be, in order to act as if it were the case, and thereby increase the chance of it actually being the case. Foresight creates ‘memories of the future’ (Baškarada, Shrimpton, & Ng, 2016, p. 418, and references therein). It has a ‘felt’ and lived quality, and carries values, as the following quotation expresses, reflecting on the Inuit experience:

. . . anticipation [is] a way of orientation, exploration, and possibility—a way of imagining, framing, and viewing the world. Anticipation thus differs from forecasts and scenarios in that it involves a way of finding one’s way in and around an environment and in and around one’s social and cultural worlds. Though not prediction, anticipation draws upon predictive capabilities, knowledge, experience, and skill. . . . Anticipation is relational in the sense of connecting several points in time—people anticipate at a specific point in time, but what is being anticipated occurs at specific times in the near or distant future. As such, it entails and involves exploration, discovery, experience, and curiosity. (Nuttall, 2010, p. 24)

Anticipation in the car pertains to the future wellbeing of the passenger once a policy intervention is in place. Whereas other futures tools may attempt to locate Prendergast Tarena’s island and describe it according to, for example, hypothesised cause–effect links, anticipation actively carries a navigator forward to the island.

This ‘carry forward’ is perhaps an unsettling concept, easily dismissed as naïve or mythological. Yet modern neuroscience theories of an ‘extended brain’ or ‘embodied cognition’ offer ideas on interactions of the brain and perception in that may explain a much about indigenous observations of anticipation. As MacFarquhar (2018) reports on the combined theorising of philosopher Andy Clarke and neuroscientist Karl Friston, perception is not inductive as has long been thought. In essence, the brain cannot think through all the information received from the senses in the time needed to control the body in an emergency. The physical body can detect far more than is needed but cannot make sense of the “cacophony of the world”. Instead, the mind reaches into the world in “predictive processing”. It is only when those predictions (or projections, as the ‘mind’ reaches out into the world) are found to be wrong that any further thought is needed. What is ‘seen’ is combined from signals from the eyes and what the brain expects to see. The expectations that are projected into the future are distilled from experience. Perception is active and not simply a matter of the physical capabilities of the senses; the ability to perceive therefore can vary between people who are (for the sake of argument) physically identical. Some people are hyper-sensitive to touch, for example, or slowed by anxiety and second-guessing; others, such as those skilled at ‘reading’ the signals from the world, from crime detectives (Gordon, 2011) to grouters at a dam site, who excel in perceiving the ‘talk back’ from their probes into fissures in rock (Schmidt, 1993; see also Shotter & Tsoukas, 2014 p. 381).

Prospective predictions are normal. Drawing on Polanyi's seminal work on the tacit nature of practical knowledge (1966) and even further back on James's work on feeling (1890), Munro et al. (2017) and Shotter and Tsoukas (2014) describe the implications for thinking about the work of policy practitioners. The thinking that is 'next to arise' starts bodily, with a feeling that isn't so much responding to stimulations from the world, as the consequence of expectations meeting potential 'settlement' in the world. An evocative illustration is provided by Munro and colleagues:

Klein (2000) found that expert firefighters did not consider a range of options, or even two alternatives but, in the urgency of tackling a blaze, usually generated just one hypothesis to guide their actions. He concluded that, *through experience* they developed a repertoire of *patterns* of how fires behaved and from this they identified a plausible option that they considered first. They did not just act on this, they tested it by mentally simulating whether it would work in the situation they were facing, taking action if it still looked plausible, generating another option if it did not and subsequently checking how emerging information fitted the hypothesis they were working under. (Munro, et al., 2017, p. 135)

Shotter and Tsoukas (2014, p. 386) recall James: Such feelings are not bounded entities with a clear beginning and a clear end, but, as James (1890, p. 254) remarks, they are "feelings of tendency, often so vague that we are unable to name them at all", but which, nonetheless, function as "signs of direction in thought, of which we have an acutely discriminative sense, though no definite sensorial image plays any part in it whatsoever" (James, 1890, p. 253). Moreover, "when engaged in action, we cannot identify the subsidiary particulars that make up the background, on the basis of which our action is rendered possible. However, our tacit knowledge of subsidiaries will be manifested in our patterns of action" (Shotter & Tsoukas, 2014, p. 384). In language mirroring that of MacFarquhar's (2018) subjects, Shotter & Tsoukas (2014, p. 388) continue, with reference to the work of Sheets-Johnstone (2012), "we seem to have an imaginative ability . . . to project a line of action into the future, to perform a joined up sequence of contributory activities, beginning from a felt tension of a qualitatively distinct kind and to act in such a way that it results in a satisfaction of that tension".

Prospective processing weakens one of the strongest rationales offered for relying only on looking in the mirror—namely, the concern that without the grounding of evidence, people are hopelessly biased. Certainly, the rationality assumed to be ideal in evidence handling may be distorted via a range of psychophysical-based errors (e.g. framing, anchoring, and context effects) or association-based errors (e.g. hindsight bias, priming effects, availability and representativeness heuristics) (Kahneman, 2011). Yet bias, in the form of past associations, generic knowledge and analogy aids decisions by predisposing attention toward only what matters. At the same time, numerous biases and subjectivities exist in so-called objective measures, which can impair decision making when they are not recognised as such (Markham, 2018; Dunlop & Radaelli, 2017; Wolf, 2017b).

In sum, prospective processes theory holds that experience creates expectations about the future that are essential to acting. This capacity enables the decision maker to take most of the presenting 'reality' for granted, in order to focus only on what stands out. Such bias (prejudice) can go wrong if unchecked, but it is futile to suppose decisions can be made without some way to filter salient information from background noise. With a great deal known about how individuals access and use information, decision-support systems have been designed to take some bias out and speed up a learner's ability to filter and select information. These systems are limited, however, as they cannot easily consider value-based trade-offs. Rather than further pursuing only such assisted bias-reductions, efforts can be directed to deciding which among biased observations are worth further consideration. For this, we turn to the philosophical work of Hans-Georg Gadamer, amplified by other work on how humans are able to 'see ahead' (Wolf, 2017).

Gadamer's ideas

A very rich set of concepts and scholarship potentially informs a consideration of what goes on 'inside the car'. My intention is to use Gadamer's ideas to convey how learners seek to resolve practical problems.¹¹

As argued above, people have some capacity to see the future. This capacity arises from prior experience, which directs some prospective projection into the world of action. It follows that the ingredients for an intersubjective engagement are present within the car, in the form of the driver and passenger, as they pursue a mutually preferred course of action, constrained by uncertainty but enhanced by past experience. Effective engagements assume an intersubjective common ground, shared ideas and resources¹² that may be 'called to mind' and communicated, thus triggering and shaping the next part of the exchange. Resources plus situation enable the participants to develop a common understanding in a conversational exchange. Two aspects of this encounter can be examined, which together clarify what and how the participants are able to achieve a common understanding. The first, from a process perspective, is that they can achieve a 'fusion of horizons' in dialogic interactions. Second, the content of the shared outcome is influenced by insights from phronetic reasoning.

Fusion of horizons

For Gadamer, a fusion of horizons occurs when the participants are 'situated' in a time and place, with an anticipatory look ahead conditioned by a preliminary 'fore-structuring' (Malpas, 2016, p. 12). Looking ahead is also 'prejudiced' in the sense of pre-judged (or biased), which Gadamer defines as "a judgement that is rendered before all the elements that determine a situation have been finally examined" (1975, pp. 269–270). From there, through dialogue, participants negotiate as they seek agreement about an issue:

Gadamer views understanding as a matter of negotiation between oneself and one's partner in the hermeneutical dialogue such that the process of understanding can be seen as a matter of coming to an 'agreement' about the matter at issue. Coming to such an agreement means establishing a common framework or 'horizon' and Gadamer thus takes understanding to be a process of the 'fusion of horizons'. (Malpas, 2016, p. 14)

A horizon gives perspective and show what stands out (Vessey, 2009, p. 537). Horizons fuse "when an individual realizes how the context of the subject matter can be weighted differently to lead to a different interpretation from the one initially arrived at. . . and integrated into a broader, more informed understanding" (Vessey, 2009, p. 540). Many horizons can be in play when time and scale vary: when the perspective may be one day, one life, or broader, like "gentrification" (Wood, 2017, p. 225). Through fore-structuring and prejudice, a policy professional can extract lessons for action from experience relevant to what stands out. Within a local ecology comprising historical, cultural, environmental, social and economic contexts, experiences and their lessons or meanings emerge in *intersubjective and intertemporal practice* (Wagenaar & Cook, 2011, p. 198; Wolf, 2016, p. 612).

As Gadamer makes clear, dialogue is a realistic, respectful, genuine, unhurried present-moment conversational exchange, and its purpose is to come to agreement on meaning and understanding with respect to "something . . . placed in the centre which the partners in dialogue share and concerning which they can exchange ideas" (Gadamer, 1975, p. 378). Exchange through *talk* achieves the fusion

¹¹ In the absence of a full philosophical discussion, my treatment of Gadamer's ideas remain somewhat loose.

¹² Wagenaar (2011, p. 200) provides an evocative listing of these resources: "expectations, memories, historical events, meanings, understandings, experiences, ideals, norms, embodiments, unrealised potential against which we act and understand".

of horizons: just sitting together in the car is not enough. The driver and passenger decide together in the new light of interaction which future point to aim for.

The dialogue is occasioned by a practical problem (what is to be done?) and object (Gadamer's 'something'—an intervention leading to future wellbeing) for the dialogue. Bartels (2015) reminds us that the aim of the exchange is to make practical judgements based on what the situation affords and constrains. Because the object is a practical problem, the solution to which is in the future, the dialogue is a joint or harmonised prospective process. In the process, "we do not try to transpose ourselves into the [other's] mind, but . . . we try to transpose ourselves into the perspective within which he has formed his views" (Gadamer, 1975, p. 292). Dialogue in this sense has a moral quality to it, as the policy professional seeks to understand the policy recipient with respect and engagement with the recipient as a person (Whan, 1986).

Thus, implicitly or explicitly, the conversational mode is in a relational, second-person voice ('we are considering what we should do'). The participants weave past experiences through interactive listening and speaking (Wolf, 2016). The second-person voice in interaction is central to Dunlop and Radaelli's 'reflection' learning, in which "there is a predisposition to listen to what the others have to say and to re-consider one's preferences" (2018, p. 260), although they focus on collective processes such as participatory policy analysis or citizens' juries, in which the role of the policy professional is less direct and less obviously interactive.

Phronesis

Phronesis supplies the necessary "mode of insight" (Malpas, 2016, p. 6) that gives rise to the content of understanding. As noted by Flyvbjerg (2001, p. 140), "In contrast to analytical and instrumental rationality (episteme and techne), the practical rationality of phronesis is based on a socially conditioned, intersubjective 'between-reason'". Phronetic knowledge is context-dependent, it invokes values in consideration of what is "conducive to the good life generally" (Whan 1986, p. 245) and is practice-focused. Phronesis in dialogue ensures that there is feeling, a shared project, and a requirement to act. "Phronesis is acquired over time and through experience. It involves the ability to generalize over a set of past situations in determining how best to act in a present one" (Cook & Wagenaar, 2012, p. 11, footnote 10; see also Dunlop and Radaelli, 2017, p. 309). Whereas episteme as a 'stock' creates a structure for its own increase and techne provides a practitioner with an ever-increasing menu of possible actions in context and for purpose, phronesis lacks the same sense of stock and increase. If there is an increase at all, it is qualitative. But more tellingly, the emphasis is not on accumulation, since the knowledge of phronesis varies situation by situation. It "is the kind of knowledge with which one mediates between the universal and the particular" (Whan, 1986, p. 245). Gadamer sees this as meaning that "the person acting must see the concrete situation in the light of what is asked of him in general" (Gadamer, 1979, p. 279) and by this consideration of the person being "intrinsically involved" and guided by what is ethically required (Whan, 1986, p. 246).

For example, in a more true-to-life version of the opening scenario, there are almost always compelling reasons for and against removing a child from the home, and the 'rightness' of the decision is not solely a matter of "taking an intellectual attitude" to some balancing probabilities, or of "thinking about a puzzling situation within the terms of abstract theoretical system" (Shotter & Tsoukas, 2014, p. 387).

Between the mirror and the horizon: Practice wisdom

Phronesis is often translated as 'prudence', 'practical wisdom' or 'practical judgement'. An additional term, 'practice wisdom' has been richly developed in social work, but is largely absent elsewhere in policy learning contexts. It conveys the balance suggested by Gadamer's ideas in a policy practical situation. Related themes, such as 'situated learning' (Lave & Wenger, 1991), emphasise the individual who is physically involved, tacitly enacting practices in a context of others similarly

engaged (Hodge, 2014). However, as elaborated over 30 years, practice wisdom in social work provides a good metaphor for all policy work that seeks to use *both* retrospective and prospective learning. Writers on practice wisdom (Klein & Bloom, 1995; Webb, 2001; Ferguson, 2003; O’Sullivan, 2005; Cheung, 2017) and on policy making (for example, Sanderson, 2006; Munro, et al., 2017) make clear that at issue is knowledge that *combines* “empirical research, theory, direct practice experiences, and personal subjective views” (Klein & Bloom, 1995, p. 800) in a deliberative engagement between a practitioner and a recipient, and leads to actionable hypotheses:

We propose that practice wisdom be defined as a system of personal and value-driven knowledge emerging out of the transaction between the phenomenological experience of the client situation and the use of scientific information. Central to this system of knowledge is a set of principles that incorporates values of the worker and the profession and serves as rules to translate empirical knowledge, prior experiences, and other forms of knowing into present professional actions. Such practice wisdom provides the practitioner with the basis for developing on-the-spot “mini hypotheses” that allow ordered progress to be made with a particular case even in the absence of fully tested method. (Klein & Bloom, 1995, p. 801)

Practice wisdom thus works with ‘stocks of knowledge’ [mirror] and ‘emerging pictures’ [horizon] in a given situation that develop into hypotheses worthy of consideration. Cheung picks up the metaphor of the picture,¹³ and likens the social worker’s eye to that of a photographer, noting that the social worker reveals a “more comprehensive picture”, with “a distinct sensibility known as the ‘photographer’s eye’. . . . that does not only involve skills and experiences, but also, to a large extent, the personal qualities of the photographer” (Cheung, 2017, p. 625).¹⁴

By contrast, in becoming oriented, namely, when we take a *practical attitude* to the world, we seek to go out towards a concrete situation in all its richness and particularities. As Shotter and Tsoukas elaborate,

what is required here is not analysis but appreciation—to ‘apprehend reality’s thickness’ [James, 1996, pp. 250–251], explore it from within (not look down on it from on high), feel the landscape of possibilities with the knowledge of the inhabitant not that of a traveller. What is accomplished in this case cannot be accomplished simply by ‘applying’ something already made; it involves a process of ‘making’—a process that begins with a person’s feelings of disquiet, of things not yet being quite right. And it is the unique quality of a person’s initial disquiets, of their bewilderments and disorientations that is of crucial importance. For, as Dewey [1930 (1988)] points out, although psychologists have paid much attention to processes of perception, they have only done so by describing the perceived object in terms of the results of an analysis of the process, leaving out of account the situation within which the process occurs, the situation that was present even before the process began. . . . Judgment is involved because we are operating here only in the realm of possibilities, not that of actualities that can be named and formalized. (Shotter & Tsoukas, 2014, pp. 387–388)

In practice wisdom, conclusions in the form of “credible narratives” are “inferred on the basis of information which is limited but the selection of which is not restricted by codified rules as to what is required for the inference to be valid” (Munro, et al., 2017, pp. 83–84).

¹³ Many, but not all future-oriented metaphors employ vision and seeing (foresight, scenario, horizon). Consider ‘memories of the future’, James’s ‘feelings’, or jazz improvisation’s ‘attunement’, for instance.

¹⁴ Many who undertake an art or craft will recognise how often the artefact barely matches what is in the mind’s eye.

Conclusion

I have sought in this paper to isolate attention on learning as it happens at a pivot point between the past and future, between the ‘known’ and the anticipated, by a single policy practitioner facing a practical problem. One could ask ‘why bother’? Indeed, this situation is precisely what every professional, and even every human, encounters moment by moment, as naturally as breathing, and as resistant to theorising (Freeman, 2007, p. 477). Yet with only few (but excellent) exceptions, scholarly thinking is very thin around the prospective part of the learning situation (what will be the result of taking this decision?). I looked at scholarship on everyday learning and how professionals learn in practice, particularly where the task is non-routine or contains significant uncertainty or ambiguity. A driver–passenger metaphor helped convey learning as a narrative, dialectical practice focused on an anticipatory ‘object’ in an intersubjective, intertemporal, and interspatial present moment. The metaphor illustrates calls for “an understanding . . . that enables effective and responsible action within ‘ongoing business’. This ‘actionable understanding’ is informed by a constantly renewed past, directed at an always partially decipherable future, and situated in a present that is ‘eternally unfolding’” (Cook & Wagenaar, 2012, p. 18).

The discussion has been motivated in part by my view that the rhetoric around evidence in policy making gives too much credit to knowledge as episteme and techne, and too little to knowledge as phronesis. Examples of expressions that raise concerns are found, for example, throughout the New Zealand discourse, in which the outcomes of data analysis are referred to as ‘insights’ (rather than as initially meaningless statistics that can *induce* insights in a learner). Nair and Howlett (2017) similarly apply concepts that are unproblematic for hindsight, but not for foresight, such as implying that there is a to ‘correct’ diagnosis of uncertainty and an ‘accurate’ anticipation of the future. I drew attention to the assumptions that seem to underpin most discussions about learning in the policy process: specifically, that learning is a (quasi) causal process of change, in which the inputs, activities and results can be identified, modelled, compared and otherwise reveal their inner workings.

In support of shifting attention to learning fundamentally, and to conveying conclusions about learning that are at least partly transferable, and thereby “bridge the practice–theory divide” (Dunlop & Radaelli, 2018, p. 256), the ideas of Gadamer helped to create a sense of how a learner combines experience, together with another, to reach a shared understanding. A fusion of horizons, achieved through dialogic interaction and the exercise of phronesis was then shown to be compatible with the concept of practice wisdom developed principally in social work, but with echoes beyond. Thus the argument was brought back to the need for learning to use both information derived analytically and insights arrived at phronetically. Individual policy learners can seek to improve decision making under uncertainty analytically. And they can complement these exercises by anticipating the future, a capacity that is not amenable to modelling or causal reasoning, but is natural, unavoidable, fallible, yet nevertheless essential, ethical and valuable.

In this context, practitioners do not simply seek to deal with *uncertainty* on a ‘technical’ basis using evidence, but rather seek to cope with *ambiguity* on a ‘practical’ basis, making wise judgements about the appropriateness of policy action in relation to a range of technical, political, moral and ethical concerns. Learning is an intersubjective practice. Wisdom and right (ethical) action cannot be read from scientific evidence, algorithmically programmed, in the absence of a learner and the learner’s experience and a situation that crystallises the requirements of a practical problem. A theory of policy learning will be incomplete if it does not incorporate some effort to reach a shared understanding of the policy practitioner’s and policy recipient’s understanding of the anticipated future wellbeing of the recipient.

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