TEACHING TO 2100 WITH PRACTICAL EMPATHY

By Katherine Perrott and Robin Mazumder

SUMMARY

Combining insights from neuroscience with the reflections of experienced planners, this article applies the concept of practical empathy to planning education. The neuroscience on human perceptions of time indicates that temporal thinking is a muscle that can be strengthened with practice. This suggests that we can improve our ability to think on extended timelines and integrate these strategies into classrooms and planning work. Even as the challenges ahead remain uncertain and our technological tools evolve, both the science and planners' wisdom demonstrate the enduring importance of empathy in both the 'here and now' and for the 'there and future.'

SOMMAIRE

Combinant les connaissances issues des neurosciences et les réflexions d'urbanistes expérimentés, cet article applique le concept d'empathie pratique à l'enseignement de l'urbanisme. Les neurosciences de la perception humaine du temps indiquent que la pensée temporelle est un muscle qui peut être renforcé par la pratique, ce qui suggère que nous pouvons améliorer notre capacité à penser sur des échéances prolongées et à intégrer ces stratégies dans les salles de classe et le travail de planification. Même si les défis à venir restent incertains et que nos outils technologiques évoluent, la science et la sagesse des urbanistes démontrent l'importance durable de l'empathie, tant pour le « ici et maintenant » que pour le « là-bas et dans le futur ».

Looking ahead to 2100, what will the next generations of Canadian planners need to know? It is difficult to imagine 75 years into the future. A useful place to start is casting the mind 75 years *back*. Canada in 1950 was a very different place. City skylines were yet to rise, department stores thrived on downtown Main Streets, and glass bottles of milk were still delivered to doorsteps. The transformations in planning's growth as a profession, our technological tools, and the places and populations that we've planned for in the past 75 years provide reference points for the magnitude of change on the horizon.

Projecting 75 years into the future presents many uncertainties and requires significant speculation on unknown variables, which neuroscientific research suggests is something that everyone struggles with. This presents a particular challenge for urban planners who have a professional responsibility to future generations. The good news is that the brain is a muscle that can be conditioned with regular practice. The mental constraint on the perception of time is not static but malleable and contingent on principles of neuroplasticity - the brain's ability to adapt and reorganize itself over time in response to experiences and learning. This means that planners can get better at anticipating the future by strength-training our muscles of *temporal thinking*, which includes both back casting and forecasting.

The CIP Fellows report on Canada in 2100 suggests a need for "planning curricula to include material concerning longer-term planning and infrastructure."[1] How can planning education rise to the challenge of this extra-long horizon? On June 7th, we had the opportunity to pose this question to 35 of our former students, now professional planners, about half of whom were celebrating the milestone of 40 years since graduation.[2]

In the spirit of Donald Schön's concept of reflection on action and learning from doing,[3] we prompted practitioners to look back on their training and work experiences to help them imagine the future needs of planning education. Cognitive neuroscience supports this use of recalling the past to help us imagine the future through episodic simulation or mental time travel.[4] Accordingly, we asked participants to consider the challenges they faced when they graduated and how they felt well- or less- equipped to face the problems of their day.

Despite different contextual challenges, there were consistencies across graduation years in terms of relevant knowledge and skills that participants learned in planning school, including problem solving, policy writing, site design, and software. A participant noted that planning internships and co-ops are where planners "learn to learn," which sets practitioners up for career-long learning. Lessons learned on the job included political

savvy and balancing competing interests, financial literacy and navigating budgetary constraints, as well as interdisciplinary collaborations and communication. These skills could be strengthened through formal planning education.

We prompted participants to forecast what they thought the planning challenges might be in 2100, and then backcast to the current moment to consider how planning education can help shape a more favorable future (*summarized in the table below*). We used two strategies: a facilitated full group discussion followed by tactile learning activities in small groups tasked with simulating 'the Canadian city in 2100.' Participants worked at different imagination stations throughout the planning studio (*draw it, model it* using mixed media, *build it* using Lego, *collage it*, and *generate it* with artificial intelligence (AI)).

What stands out is that experienced planners not only identified core technical and functional competencies but also placed strong emphasis on planners' enabling competencies or 'soft' skills like cultivating empathy for those who will be living in the places we plan long after the horizon of our careers, relationship-building, respect, communication, and agility in problem-solving. These are the competencies that have enduring relevance – and need to be strengthened through planning education – even as unanticipated challenges emerge and our technical tools evolve.

Successful teaching strategies often transfer to effective planning practice, and vice versa. We can teach *and* plan

Ongoing and anticipated challenges in 2100	Knowledge & skills that should be addressed in planning education
Budget scarcity for funding many things from heritage to addressing the infrastructure deficit.	Ability to track and measure change, drawing on a solid foundation of social, economic, and environmental studies.
Limited supply of land ideal for development and diminished stock of farmable land with the best soils.	Adaptive thinking and agile processes.
Speed of change - in technology, legislation and processes.	Empathy training to recognize a diversity of needs, including mental and physical health challenges that impact lived experience.
Environmental issues including drought, sea level instability, climate change, and fires.	Respect for difference and working to ensure equitable lifestyles, and access to community services and infrastructure.
Geopolitical instability impacting local economies.	Capacity to synthesize and communicate information in a user-friendly way.
Mental health struggles in the population.	
Social polarization and conflict.	

to 2100 by providing opportunities for students and citizens to condition their temporal thinking muscles beyond our typical 10 to 25-year timelines, gradually stretching into the 75-year-plus horizon. Because of 'future discounting,' which is the brain's natural prioritization of immediate rewards over future outcomes, the neuroscientific key is making distant futures feel immediate, personal, and actionable, despite the cognitive challenges of abstraction and the detachment of data trends. This requires keeping sights set on high level social goals and benefits.[5] Tactile exercises like the imagination stations described above help make the future tangible and immediate. Building on planning's long-standing scenario planning toolkit, we might add guided visualizations of future communities, and active role-playing exercises where participants try out the future.[6] There's evidence that exposure to natural landscapes reduces future discounting by 10-16 per cent, or in other words, nature heightens environmental awareness and makes us care more about the future.[7] This points to the importance of field learning and creative planning work that extend far past slide decks and re-engages our embodied brains in caring about the future.

Caring about the future requires a cultivation of *practical empathy*. Practical in the sense that it's not just about feelings, but also about applied reason. Empathy has been critiqued as being overly reliant on one self's position and feelings, and thus the challenge is to combine rationality – like the technical tools and evidence-backed policy work of planners – with compassion.[8] Empathy also takes practice and repetition to improve our skill at it. When practical empathy is regularly applied, it can strengthen our mental ability to plan for the future and can literally re-wire[9] planners' approach, transforming century-scale thinking from an abstract notion to an intuitive skill.

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Endnotes

1 Canadian Institute of Planners Fellows, *Imagining Canada in 2100*, January 2025, p. 16

2 Alumni participants in these quality assurance and improvement activities for the School of Planning were informed that we intended to share the outcomes of the workshop as part of this special issue in *Plan Canada*, and all in the room affirmed this dissemination of workshop information and photos.

3 Schön, Donald A. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books, 1983; Fischler, R. "Reflective Practice" In *Planning Ideas That Matter: Livability, Territoriality, Governance, and Reflective Practice*, edited by Bishwapriya Sanyal, Lawrence J Vale, and Christina D Rosan. Cambridge, Mass: MIT Press, 2012.

4 Schacter, Daniel L, Donna Rose Addis, and Randy L Buckner. "Episodic Simulation of Future Events: Concepts, Data, and Applications." *Annals of the New York Academy of Sciences* 1124, no. 1 (2008): 39–60.

5 Liberman, Nira, and Yaacov Trope. "Psychology of Transcending the Here and Now." *Science* (American Association for the Advancement of Science) 322, no. 5905 (2008): 1201–5.

6 For example, as done in Kitchener 2051 (the Official Plan update): *www.engagewr.ca/kitchener2051/approaches-growth-workshop*

7 van der Wal, Arianne J, Hannah M Schade, Lydia Krabbendam, and Mark van Vugt. "Do Natural Landscapes Reduce Future Discounting in Humans?" *Proceedings of the Royal Society. B, Biological Sciences* 280, no. 1773 (2013). https://doi.org/10.1098/rspb.2013.2295.

8 Bloom, Paul. *Against Empathy: The Case for Rational Compassion*. New York, NY: Ecco, 2018.

9 Draganski, Bogdan, Christian Gaser, Volker Busch, Gerhard Schuierer, Ulrich Bogdahn, and Arne May. "Changes in Grey Matter Induced by Training." *Nature* (London) 427, no. 6972 (2004): 311–12. https://doi.org/10.1038/427311a. ■