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Thinking Through Theory: Function, Effect, & Control

Associate Professor Steve Harfield, Faculty of Design, Architecture & Building, University of Technology Sydney

Address: PO Box 123, Broadway, NSW 2007

Email: steve.harfield@uts.edu.au

Phone: [02] 9514 8848

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Abstract (230 words)

The idea of 'theory' is a commonplace in most disciplines, not least planning and urban design, and is accepted, apparently self-evidently, as being an important word, signifying the intellectual foundations that underpin thought and action. As such theory would seem to be of central importance to planning practice, and thus, it might be assumed, to planning education. Yet while this may simply be taken as read, our *involvement* with theory, in both practice *and* education, tends to be with our understanding of, acceptance of, and thus commitment to, *particular and specific theories*, based, presumably, on their use value – demonstrable or assumed – to our everyday needs. Pragmatically sound as this may be taken to be, it nevertheless suggests a significant lack of critical engagement with the notion of *theory-in-itself*.

Starting, then, from the simple yet substantially overlooked proposition that talking about *theories* is not the same as talking about *theory*, this paper explores the nature and role(s) of theory with particular reference to planning education and practice. Via the identification of three dualistic tensions underlying and characterizing the functionality of theory – identified here as the explanatory and the predictive; the analytic and the mediatory; and the enabling and the justificatory – the paper interrogates the ways that these functions 'work' in relation to our thinking practices, and thus our use of – and, significantly, our use *by* – theory.

Keywords:

Introduction

While planning education – and the varieties of planning practice that, one assumes, follow from this – might suggest specific subject contents, specific foci, specific aims, intentions and methodologies, and thus familiarity with and potential adherence to specific and individual theories, this paper proceeds from the simple if substantially overlooked proposition that talking about *theories* is not the same as talking about *theory*. While we may assume knowledge and/or understanding of what might be called 'theory in itself' via our prior familiarity with and commitment to specific theories, such knowledge claims do not necessarily follow from simple theory use.

That the word 'theory' is a commonplace in most disciplines, not least planning and urban design, and that it is accepted, apparently self-evidently, as an important term, signifying the intellectual foundations that underpin thought and action neither removes, nor adequately resolves, a number of problems concerning 'theory'. Similarly, the fact that the term 'theory' may be subject, at least in a generic sense, to easy and seemingly unproblematic characterization – a theory is any organized, systematized and formally articulated collection of ideas or concepts purporting to describe, explain, or generally account for some specific 'subject' or aspect of the world – does little to alert us to the effects theory usage and theory acceptance have upon our beliefs, assumptions, commitments and practices.

Thus, while universal as a term, there is, for example, no simple agreement as to what theory 'is' and thus what the term 'theory' *means* or *includes* or, perhaps more importantly, what 'theory' *obliges*. And while an unequivocal referent is neither to be expected nor desirable, this absence nevertheless leads to a variety of often-conflicting presumptions about the nature, characteristics and value(s) of theory. There are thus significant disparities within and between disciplines in respect of expected and/or required relations between the *claims* of a theory and the evidence and/or argument needed to *substantiate* such claims. The latter, of course, bears upon *why* and on what basis we should *accept* – and, in many cases, *act upon* – what a theory 'says'. Such ambiguity in respect of criteria also allows the easy elision or misconstrual of 'opinion' for 'theory'. Nevertheless, theories, howsoever they are constructed, are frequently highly persuasive and inescapably normative in character, readily attracting and capturing our attention, and, once adopted, guiding, assisting, controlling and restricting both our thoughts and actions, and significantly informing and influencing our aims, intentions, attitudes and practices. Such persuasive power, and its concomitant intellectual and behavioral control, frequently goes unnoticed by the theory 'user', and is tied directly to the function(s), and thus to the use-value, that theory is assumed to provide.

In briefly exploring some of these issues the paper identifies of six specific functions of theory – characterized here in convenient pairs as the explanatory and the predictive, the analytic and the mediatory, and the enabling and the justificatory – and interrogates the ways that these functions 'work' in relation to our thinking practices, and thus our use of – and, significantly, our use *by* – theory.

Starting with Science: The explanatory and the predictive

While it is not the intention to prelate 'science' as the Rosetta Stone of all theory the physical sciences nevertheless remain, at least for the lay person, the disciplines which appear both to have

the most direct and concrete relation to theories, and to provide what might be called a 'strong' characterization of theory. As Kwame Appiah notes, it "...seems impossible...to conceive of science without theory. The development of theories about how different parts of the world work is what science is for. If you don't want scientific theories you don't want science" [2003: 144].

In a similarly instructive observation, Fred Kerlinger suggests that "The basic aim of science is theory", to which he immediately adds, "Perhaps less cryptic, the basic aim of science is to explain natural phenomena" [1973: 8]. For Kerlinger, then, a theory is "...a set of interrelated constructs (concepts), definitions, and propositions that presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena" [1973: 9]. Finally, Ruse notes that:

"A scientific theory is an attempt to bind together in a systematic fashion the knowledge that one has of some particular aspect of the world of experience. The aim is to achieve some form of understanding, where this is usually cashed out as explanatory power and predictive fertility" [1995: 870].

Now the phrase "the knowledge that one has of some particular aspect of the world of experience" identifies a key feature of scientific theories, namely that they have as their base *facts about the world*, i.e. data that the scientific community believes it has already established about the world, usually by observation and experiment. Yet scientific theories do not simply *comprise* such facts. Rather, they are constructed *in response* to such facts, and seek to *account for them* by locating them or consolidating them within *a coherent and consistent explanatory framework*. Such explanatory frameworks are thus *constrained by* the facts that one seeks to explain: they are constructed in order to 'house', organize and account for things that we already 'know', and thus (in general) must be consistent with such facts. While this means that they can be *tested against* these initial *inputs*, what is of considerably *more* significance is that they can be tested against *consequences predicted as necessary outcomes* of the particular explanatory framework proposed (i.e. the 'theory').

On the trivial assumption that the theory proposed *does* actually account for the extant body of facts which prompted it and which it set out to explain – if it *doesn't*, then why keep promoting it? – it may be noted that it is in the very *nature* of a scientific theory that it should explain *other* pertinent facts and phenomena *not used as the basis of its construction*. Hence, the explanatory power of theories ensures Ruse's "predictive fertility", i.e. the theory not only explains what we already '*know*', but it posits the existence of 'things' – facts, phenomena, consequences – that we *did not know when the theory was formulated*. (A classic example is Einstein's general theory of relativity which, to cite Hempel, "not only accounted for the known slow rotation of the orbit of Mercury, but also predicted the bending of light in a gravitational field, a forecast subsequently borne out by astronomical measurements" [1966: 77].) Moreover, it is this predictive power inherent in scientific theories that accounts for their eminent *testability*.

The centrality of testability in relation to scientific theories stems from the question 'what is it that distinguishes science from non-science?' One answer to this was posited by Karl Popper under the rubric of the 'demarcation problem', and the 'falsification' model of testability that he advanced suggested that science does, or should, subject its theories to the harshest possible tests [1972a; 1972b]. Significantly over simplified here, this means that, rather than looking for more and more

instances that *confirm* and support one's theory – a quite natural tendency since we all like to have our ideas confirmed – one should deliberately look for *disconfirming* instances. We have a theory; it has both explanatory power and predictive power; we determine what are the predicted outcomes of the theory; and we test to see if these outcomes do actually obtain. If they do *not*, then we must ask ourselves why; and if repeated attempts fail to elicit the predicted outcomes, then the theory *itself* must be placed in doubt.

What is satisfying about this from the perspective of theory *in general* is not only that it tacitly addresses the question 'why should I accept this theory?' but that it *normalizes* harsh tests for one's proposals at the expense of easy confirmation. While we might say of *any* theory that to commit to a theory is to commit to its consequences, in science, more than in most other disciplines, the test mechanisms are (a) stringent, (b) additional to the content that has led to the proposal of the theory, and (c) external to the author of the theory. Although it would be naive to characterize scientific theories as being neutral in respect of either the data they seek to explain (and of which they thus comprise) or the tests which they must undergo, such exteriority is nevertheless a hallmark of science. As Broderick notes, "... while the truths of science are located and deployed by social beings for social ends, they are critically independent of human wishes" [1997: x]. In other words, once constructed, our theories entail *predicted outcomes that lie beyond our control*. Failure to *account* for such predicted outcomes – if we are to take our theories seriously – should cause us to *question* those theories themselves.

Thinking Through the Lens of Theory: The analytic and the mediatory

Now, if scientific theories are inherently data-based and quasi-neutral, it is often the case in other and non-scientific disciplines that the term 'theory' can, in contrast, *seem* to mean simply 'having and expressing a view or opinion about' or 'establishing and supporting a position'. Yet, while such theories might often be criticized as being *under-explained*, i.e. *insufficiently* accounted for; not rigorously argued; tending to rhetoric rather than demonstration; and/or soliciting belief 'because I've said it', rather than convincing by the power of evidence, they nevertheless have striking power to change our minds and convince. As such, they are often referred to as being *transformative*, rather than argumentative.

Recognizing the power of persuasion of such position- or opinion-based intellectualizing is an incentive to understand that theories inescapably perform both *mediatory* and *analytic* functions. They essentially stand between ourselves and the world, providing us with tools with which to analyze, interpret, criticize and understand that world. In this sense theory is normative; it is *that through which we see*, and thus that which conditions our understanding of the world in *general* and of a whole variety of disciplines in *particular*.

The idea of theory as *mediation* is, of course, nothing new. Theories have always stood between ourselves and the world, and, given this notion of theory as that which we see through, we might say that our perceptions of the world, our *conceptions* of the world, our beliefs *about* and our actions *within* the world constitute *theory effects*. They are the result of *how* and *with what* we look at the world; and just as there is no unmediated observation, so there is no unmediated world of planning, urban design, architecture, and so forth.

Of course, we 'see through' our theories in a double sense. First, they are the lenses through which we look at and see the world, or, to be more precise, see what *they present to us* of the world. But second, and as suggested earlier, their familiarity means that, in many cases, we simply 'see through' them without realizing that they are there. Thus, while theory is an everyday *presence*, many of us are insufficiently *articulate about* and/or *cognizant of* the fact that we wear the lenses of theory in respect of how we 'see' and interact with the world. In what might be termed its *informal* sense, then, theory can act both to shape and to reinforce our perceptions, preconceptions and beliefs, and might usefully be compared to the dark matter of the cosmologists: invisible in itself but identifiable to us, if we have the means and motive to look, through the evidence of its effects and consequences.

In its more *formal* sense, as an organized, systematized and formally articulated collection of statements purporting to describe, explain, or generally account for some specific 'subject' or aspect of the world, we trust (although we often cannot be certain) that we are aware of the theory we are using, aware of why we subscribe to it, and what is 'does' for us. In this sense theory provides us with powerful *tools* with which to analyze and to address issues pertinent to, for example, planning. But if different theories presumably provide us with different tools, then we might hope that the different perspectives that such comparisons afford *uncover 'things' that we would not otherwise have seen*. Considering a variety of theoretical positions, most especially drawing on views from outside our conventional viewpoints or outside our established disciplinary frame, might thus set planning against a wider cultural and intellectual context. At any given time, then, the potential mediation of alternative perspectives sets the current disciplinary 'norms' against a range of issues and concerns *wider* than might have been glimpsed from *'within'*, but which *previously* might have been regarded as *irrelevant* and having *nothing to do with planning*. As Hays notes in relation to what I would term 'theory from without', "theory's mediatory function releases unnoticed complicities and commonalities between different realities that were thought to remain singular, divergent, and differently constituted" [1998: xi].

On Normativity: The enabling and the justificatory

But if theory is an inescapable mechanism for seeing and interpreting the world, then it simultaneously fulfills a performative function, a directed means of acting upon the world. On the assumption that to subscribe to a theory is to commit to its aims and its consequences, then position- or opinion-based theories have both an *assertive* dimension, i.e. a tendency to prescribe how the world *should be*, as opposed to offering an explanation of how the world *is*, and, equally importantly, a concomitant *confirmatory* dimension, auto-sanctioning the nature of the outcome. Such theories are thus *normative* being, on the one hand, both *causative* and *enabling* and, on the other, simultaneously *justificatory*.

Such normativity, it might be asserted, is particularly prevalent in planning, architecture and many of the design disciplines, as well as in the social sciences. As Hays observes – in relation to architecture but the parallel with planning is apt – "...like architecture itself, theory is an appetite for modifying and expanding reality, a desire to organize a new vision of a world perceived as unsatisfactory or incomplete – such will always be architecture theory's proper utopia" [1998: xiv]. Thus, while propositions and principles may be used to explain and/or analyze a design or a planning proposal, they are simultaneously propositions and principles that maybe used *to cause or bring about* a state of affairs, e.g. to predicate a design. If scientific notions of theory 'naturally'

[sic] stress the explanatory function of theory, they often do so at the expense of the *enabling* or the *causative* function.

Bernard Tschumi touches on this aspect of theory when he asks: "Do architectural texts belong to the realm of objectivity, similar to scientific theorems whose validity can be demonstrated by actual buildings? Or do they on the contrary belong to the realm of poetic gestures and programmatic statements motivated by partisan interests? Are texts – and all theory – essentially descriptive or prescriptive?" [1993: 11]. The same questions may well be asked of theories associated with or informing planning decisions. And the answer is surely that, while they may be – or we may *take* them to be – both explanatory and descriptive, and thus quasi-neutral, planning theories are significantly prescriptive in that they tell us what do; they establish tasks for us to fulfill; they specify in advance what our outcomes should be.

A planner with an established commitment to a particular and given position 'knows', in advance of the actual project and irrespective of any supposed rational analysis of its requirements, the general nature of and strategy informing the outcome, both in terms of its inclusions and its (self-evident) exclusions. These are, of course, precisely what are specified by what might be called the 'theory-in-use'. A commitment to the theory – *even if I do not realize that I have made such a commitment* – is a commitment to just such an outcome.

Theories are thus also undeniably justificatory. Not only do we *believe* in them (or at least we *choose* them) and *do things* on the basis of them, but we also feel *justified* in asserting the *outcome* on the basis of the *input*. Theory usage in this sense has certain parallels with 'method'. And, as with a potentially mistaken belief in method, we should be careful to note two quite distinct senses of the term justificatory here that must not be confused. On the one hand, theories are justificatory in the simple and relatively benign sense of allowing output to be checked against input. In this sense, that 'outcome A accords with theory A' is a means of determining whether or not we have 'applied' the theory 'correctly'. On the other hand, however, theories are justificatory in the potentially dangerous sense of asserting that, *because* we have 'applied' theory A faithfully, then outcome A is not just 'correct' but *'good in itself'*. The theory allows, encourages, recommends, guides and/or facilitates our *doing* of something; at the same time – or so we are tempted to believe – it certifies the appropriateness, worth, quality or correctness of that doing.

Yet in respect of both of these we should remember that, much as we may wish or assume it to be so, neither theory choice nor accurate theory application constitutes, in itself, a *justification*. The fact that you (or some theory or theorist of your choice) thinks that the world should be a certain way, or that certain things should be done, or certain 'rules' followed, does not ensure the *rightness* or the *appropriateness* or the *value* of those beliefs, regardless of the good faith in which they are held, or the good intentions that prompt them. To have a theory; to believe in it passionately; to articulate it; to follow it faithfully; and to proselytize it to others guarantees nothing – neither accuracy, nor correctness, nor quality, nor moral validity. Only testing and verification of the outcome against external and independent criteria can do this.

Conclusion: Full Circle – The explanatory and the predictive revisited

If theory, formal or otherwise, acts normatively, providing planners with models, guidelines, programs and 'rules' which they may follow and to which they may conform (or against which they

may rail); and if, in offering such frameworks, theories thus fulfill mediatory and analytic functions, offering both freedom and constraint by allowing us to see planning through their lenses, while at the same time disallowing us from seeing otherwise; then, at the same time – and here we have come full circle – such theories fulfill for planners both explanatory and predictive functions. They fulfill such functions not in the hard scientific sense with which we began, explaining how the world is and delivering testable predictions with which to confirm or disconfirm the theory, but in the sense of predicting what the theory's outcome – the future world – will be, and explaining how to get there, and why.

'Theory', irrespective of its particular and specific meaning in individual cases, is thus ubiquitous within planning and urban design, both discursively and instrumentally. We account for – and we instigate – planning decisions on the basis of its tenets. It presents itself as, and it lies behind, that myriad of positions and imperatives and idiosyncrasies that planners assume. It is presented *to us*, albeit often with little definition or substantiation, in a host of books and papers as a plethora of statements of personal or group opinion, belief and exhortation; varying with time, place and author; revealing (or concealing) different emphases and foci, different preoccupations and obsessions, different assumptions and prejudices, different illuminations and blind spots; and offering different stipulations of permissibility, and acceptability, and never-to-be-considered exclusions. Oppositional, contradictory, often mutually exclusive, and delightfully self-referential, it is nevertheless presented as reasonable, rational, obvious, and self-evident; as the common sense that we should all embrace; prescriptive of the good, the sound, the true, the right, the proper; and almost unfailingly, to borrow William Curtis' beautiful description of the early polemics of De Stijl, "clothed in a moral rectitude" [1982:]. As such, it informs all our actions and decisions, opinions and criticisms: intentionally or otherwise; consciously or otherwise; and whether we like it or not.

Theory, then, is a potentially dangerous ally, guiding, assisting and justifying at the same time as it controls, restricts and blinkers. As Thomas notes:

"...theory and theorizing...are about the construction of ideas into a framework. The problem with such frameworks, in looser or tighter forms – in either the mental model notion or in grand theory – is that once they exist they constrain thought within their boundaries" [1997: 86].

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