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On Being Stuck: Looking for the Limits of Ethics in the Built Environment

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Abstract

We seek here to lay the groundwork for a multi-disciplinary inquiry into one aspect of the phenomenology of moral experience, which is a general project of elucidating what it is like for people to make ethical decisions in particular contexts. Taking urban and suburban environments as the context for decision making, we focus in particular on the common human experience of being stuck. Just as a person can get physically stuck while trying to crawl through a hole that is too small, people can get ethically stuck when some feature of their relationship with their context blocks or deflects their efforts to make good decisions and to do the right thing. We develop a preliminary typology of stuckness for ordinary residents of urban and suburban environments, and suggest ways in which various disciplinary perspectives might be brought to bear on each type. We close by looking ahead to two possible extensions of inquiry into stuckness: a consideration of how people and groups who have some power in shaping the built environment (e.g., developers, planners) may be stuck, and a consideration of when and under what circumstances people might get unstuck.

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I. Being Stuck

A naïve model of ethics in practice holds that judgment leads unproblematically to choice, which leads unproblematically to action, which leads unproblematically to result. For activists in urban and environmental policy, this model provides some grounds for optimism as well as a prescription for social change: to change the world, it is necessary only to change the way people behave; to change the way people behave, it is necessary only to change the way people think. For ethicists, this model provides the satisfaction of knowing that ethical awareness and ethical judgment play a very important role in shaping human behavior and, by extension, the human environment.

The actual experience of choosing and acting is much more complex than the naïve model suggests, however, which challenges the optimism of ethicists and activists. Put simply, reasonable people with good judgment and good intentions can get stuck on the way to actually doing good for themselves and for their communities. Even if it were relatively easy to identify the problems of growth and to envision a better ways of organizing the built environment, it may nonetheless be difficult to do anything that could bring the vision closer to reality. Changing transportation and resource-use patterns is not nearly so simple as getting individuals to change their own behavior, and changing their behavior is not nearly so simple as changing the way they think.

Our purpose here is to lay the conceptual groundwork for a multi-disciplinary inquiry into the lived experience of being stuck, and to indicate some directions in which this inquiry

might go. We think of this as a contribution to the phenomenology of moral experience, following Bryan Norton (2003, 67), who proposes a "phenomenology of the moral space" within which people make decisions about environmental practice and environmental policy. As a first step, we offer here a preliminary typology of stuckness, with indications of how various disciplines might contribute to better understanding what it means to be stuck and how and when it might be possible (or advisable) to get unstuck.

We do not choose the term 'stuck' as a bit of specialized jargon, nor do we intend to establish it as such. Rather, we choose the words 'stuck' and 'stuckness' in the hopes that readers of diverse backgrounds will have some intuitive sense of what we mean. The word can be taken as shorthand for a set of intertwined metaphors rooted in bodily experience (Lakoff and Johnson 1980: 19-21): a person may be stuck in quicksand or in a subway train stalled between stations. When people are stuck in ethical rather than physical terms, they are unable to move forward toward their goals. Some feature of the situation holds them fast or, at least, generates enough friction to make movement very difficult.

The point of investigating stuckness is not to replace the optimism of the naïve model with despair, but simply to shed some light on the lived experience of being stuck as one way of understanding the concrete situations within which people actually make choices and pursue their various projects. Our hope is that, by uncovering the various ways in which moral agents are constrained, it may be possible to see more clearly opportunities for critical reflection and effective action. In short, understanding the limits of ethics in decision making is a step toward better decision making. If nothing else, this inquiry might suggest more useful ways of framing questions about practice and policy, and might lead decision makers to have more modest expectations of the outcomes of their various projects.

We bring to this project our own disciplinary perspectives: one of us is a philosopher, and one an economist. We have each of us considered the problem of stuckness through the particular lenses we have available to us. We have worked to expand our own repertoire to include perspectives from evolutionary biology, cognitive science, environmental psychology, history, technology studies, and urban studies. Still, there are many other possibilities. We freely confess our own limitations, and we invite others to bring their own perspectives on the experience of being stuck.

II. Ways of Being Stuck

We begin by distinguishing three different ways of getting stuck, each of which occurs at a different point in the process of choosing and acting. The easiest of these to see are what we call the *limits of efficacy*, which occur after a decision has been made: action is blocked or its results deflected in spite of the decision maker's best efforts. Somewhat harder to grasp are ways in which the decision making process itself can get stuck, which we call the *limits of integrity*; commonly, this takes the form of an entrenched conflict among a decision maker's motivations, at least some of which are beyond the decision maker's direct control. Then there are the most elusive ways of getting stuck, those that usually occur below the level of awareness and before the decision-making process even starts. We call these the *limits of autonomy*, and they occur when there are viable options for choice and action that the decision-maker cannot perceive or imagine. The limits of autonomy raise a question we will have to answer in due course: as a matter of lived experience, how can individual decision-makers come to be aware that they are (or were or may be) unaware of some viable options?

For the purposes of setting out this typology, we focus on the moral experience of ordinary residents in the built environment, who must live within the opportunities and

constraints of cities and towns as they are without wielding any great deal of power of their own to change the underlying structure of their environment. Later, we will suggest how an investigation into the limits of ethics might be expanded to include the experience of people who do have some such power – including developers, planners, and policy-makers – and the ways in which they, too, may get stuck.

1. Limits of Efficacy

Limits of efficacy arise when a moral agent makes a decision and acts upon it, but either the consequences do not play out as expected or action itself is stopped or deflected. In the context of the built environment, suppose individuals or groups judge current patterns of metropolitan growth to be unhealthy, unsustainable, and unjust. Even if their deliberation has been sound, and even if their intentions are good, they may nonetheless find it difficult or even impossible to bring about the desired change.

One way of getting some purchase on the limits of efficacy from a philosophical perspective is through phenomenology more technical sense of the term, particularly the existential phenomenology of Maurice Merleau-Ponty. Phenomenology, in brief, is a method of discovering the basic structures of human experience by setting aside the assumptions of an objectivist or scientific view of the world, getting "back to the things themselves," to use Edmund Husserl's famous phrase. According to Merleau-Ponty, the structure and meaning of the world of perception are rooted in the lived experience of being a perceiving and perceptible body in the world, a body with particular abilities and vulnerabilities. Consciousness, writes Merleau-Ponty, "is in the first place not a matter of 'I think' but 'I can'" (Merleau-Ponty 1962: 137).

The limits of efficacy come into view when "I can" is mirrored in "I cannot", when there is no possibility for movement or action along a particular path. The possibility of the "I cannot" comes clear in an account that parallels existential phenomenology from within the objectivist framework of empirical psychology: J.J. Gibson's theory of affordances, which is intended to characterize any animal's perception of its surroundings. In his terms, "the *affordances* of the environment are what it offers to the animal, what it *provides* or *furnishes*, either for good or ill" (Gibson 1986: 127). Affordances are the opportunities opened to an animal and the constraints imposed upon it by its surroundings

There is not necessarily a deep conflict between existential phenomenology and knowledge produced by the sciences. For Merleau-Ponty's part, what the sciences do is to take up human experience of possibilities and limits and to systematize it. The sciences, he notes, seek the hidden "hinges" or "pivots" in the depths of the world of human experience (Merleau-Ponty 1968: 225). At least some of these "hinges" might help to explain the various ways in which human projects are frustrated, and the various bumps and bruises people sustain in trying to pursue them. Merleau-Ponty's concern as a phenomenologist is simply that the second-order abstractions of the natural sciences never be mistaken for the basic structures of experience, or taken for the sum of all meaning.

The ethical point here is that the affordances of their environment – including their built environment – may prevent moral agents from acting on their best judgment and realizing their ideals, simply as a function of the capacities of the kinds of bodies that they are. An agent may be incapable of doing good or preventing harm in a particular circumstance because of external barriers to bodily movement, distance, or failures of strength. Some barriers to movement occur naturally, as rivers and mountain ranges; others are made by humans, as railroad tracks and

fences (Noonan 2005). For someone trying to walk to work, to take just one example, the absence of sidewalks, the width of an intersection, the cross-cutting trench of an interstate highway, fences around private and public property, and even sheer distance may all get in the way, in spite of all good intentions.

Some of the limits of efficacy may be regular and predictable features of the environment of the agent, but others may just be bad luck: an ill-timed engine failure, or a drop in housing prices just before the decision to sell, or an unintended consequence of a new regulation or new technology, or a natural disaster that disrupts a plan for urban revitalization. This suggests that another philosophical approach to the experience of being stuck would be to take up the vexed questions of moral luck (see Nagel 1979: 26): Does bad luck of this sort have any moral significance? Are people to be held accountable for the results of bad luck?

Reframing stuckness in terms of another discipline, economics brings out other dimensions of limited efficacy: it is sometimes difficult to do as we choose because the costs may be too high, often as a function of transactions that involve other people. For example, agents sometimes encounter limits to the efficacy of moral action because of the lumpiness of some choices, especially those involved in the purchase of durable goods like cars or houses. Some goods, including much of the built environment, have very high fixed or up-front costs. The sticking point is not so much the sheer expense of the durable goods in question, but rather the discrete, all-or-nothing nature of those investments – their lumpiness. Lumpiness can seriously reduce the flexibility decision-makers have, raising the bar for any decision maker for whom such a purchase is necessary for completing a moral project. Suppose our someone decides that, in order to reduce the amount of pollution she produces in commuting to work, she will either to buy a hybrid car or to move closer to her job downtown. She would have to have

the means to make the transition all at once: it does not make much sense to speak of buying a tenth of a hybrid car or moving 26% of the way into a downtown loft. Because of lumpiness, decision-makers can find themselves stuck in the status quo.

Further, purchases large and small involve transaction costs that can act as a kind of friction in the decision-making process. For example, there are transaction costs involved in gathering information before a decision. Without a lot of costly research, a "rationally ignorant" decision-maker may feel stuck with the status quo because transaction costs have made alternative ways of living prohibitively expensive.

There are other dimensions of being stuck that are open to exploration through various methods and perspectives drawn from philosophy and from the social sciences. For example, some limits of efficacy arise because people act in social contexts. One person's various projects are likely to come into conflict with the projects of other individuals and groups. An individual's best intentions and best efforts may be brought up short by direct opposition from others, mutual incomprehension, legal and regulatory strictures, economic inequality, segregation, oppression, co-optation, red tape, or any of the myriad ways people can interfere with one another or exercise power over one another.

In the built environment of the United States, some of the social limits of efficacy take the form of congestion – in traffic, in labor or housing markets, or elsewhere in a booming metropolis. Entering a freeway necessarily adds another user, bringing closer the depletion of the commons. In the same way, transferring one more child (and another, and another after that) into the city's best school would alter the character and quality of that school. More broadly, it is a common experience of those who move to newly-developed suburbs that their built

environment quickly loses many of the qualities they sought there – peace and quiet, the feel of open country – as others come to seek those same qualities.

2. The Limits of Integrity

Moving a step back, limits of integrity arise when the decision-making process itself is complicated by conflicting motivations. Consider, for example, a commuter who could choose to take an extra twenty minutes each day to walk to work, but this would be twenty fewer minutes available to spend with her children each day. Or, suppose a homeowner sees exclusionary gated communities as unjust, yet eagerly supports efforts to enclose his own neighborhood to keep out traffic that disturbs the tranquility of his neighborhood and reduces his sense of security. Another homeowner may disapprove of gentrification, but will not compensate her neighbors to stop them from moving out because she also enjoys her perception of an improving neighborhood and rising home values.

From a philosophical perspective, integrity is a moral virtue, an admirable character trait that suggests a wholeness or unity among the value judgments, habits, and inclinations of an individual. For such a person, all motivations pull in more or less the same direction, toward the same goals. The lifelong project of becoming a whole person can be thought of as a process of integration, a process that may or may not go smoothly. Sometimes, it is easy to make a choice among conflicting motivations. At other times, apparent conflicts can be resolved by reconciling different motivations under a common value or principle. At still other times, though, the process of integration itself might get stopped by a conflict of motivations that is deeply entrenched in the character and circumstances of the individual, with no easy choice and no easy prospect for reconciliation. These are the clearest instances of the limits of integrity.

The question of moral luck comes up here once more. Character formation starts early, before a moral agent can exercise any conscious control over the process. By the time people come to full consciousness, many of their values and motivations have already been shaped and set by their upbringing, their circumstances, and even by their biological inheritance. To what degree, then, can people be held responsible for their own character?

At the farthest extreme, feminist scholars have pointed out that conditions of oppression can make the development and maintenance of integrity all but impossible (Card 1996: 33). Women who grow up under conditions of oppressive patriarchy may come to internalize the values of the oppressors, which they experience as a basic inclination toward submissiveness. According to Lisa Tessman (2000: 383), "someone who has these character traits and who meanwhile is committed to liberatory feminist principles through which she can identify these traits as bad (for her) will experience an internal conflict that [Claudia] Card would describe as a lack of integration."

It would be a step too far to argue that internal conflicts concerning choices in the built environment are the result of moral damage sustained under conditions of oppression. Even so, individual decision-makers may find that they have acquired strong and persistent inclinations toward particular ways of living that they have subsequently come to judge as bad. Acting on their newly-acquired principles may require "a monumental effort of will" (Nagel 1979: 32) – which may be too much to ask of most people. Personal transformation, as Tessman (2000: 387) argues, is no easy thing: "one cannot simply will one's character to change." To some extent, at least, people are stuck with the character they have.

As with the limits of efficacy, a phenomenological take on the limits of integrity may be informed by the natural sciences. Some of the motivations that make integrity difficult to

achieve seem to arise from the kind of animal that human beings are, that is, social primates with basic biological and psychological drives of their mammalian and reptilian ancestors. In terms of lived experience, agents often struggle to bring these intense and persistent impulses under conscious control. It is hardly a surprise that the relation between reason and animal desire has been a central theme of moral philosophy from Plato on down to the present.

Again shifting to an economist's perspective, another source of conflicting motivations may lie in what are called "stable equilibria." People frequently express a preference for more stable investments in stock markets, in housing markets, or in labor markets. Current patterns and processes of metropolitan growth represent a stable equilibrium, and their reliability is arguably a desirable trait: at least everyone knows what they are likely to get. Cultural norms can develop around stable equilibria, enabling more fluid social interactions and provision of collective goods (Ostrom 2000: 137-158; Posner 1997: 365-369; Elster 1989: 99-117). Notice what this means: being stuck in a particular equilibrium can lead to a cultivation of taste, meaning that preferences are shaped in part by a system that was itself brought about by antecedent preferences (for a review, see Bowles 1998: 75-111; see also McCain 1995: 1-15). As a consequence, cultural norms are self-reinforcing. Even if the stuckness of cultural norms offers some advantages, it may get in the way of movement toward alternative systems and norms which, while also offering the advantages of stuckness, represent significantly better equilibria.

A more trivial form of economic limits to integrity can be frequently observed whenever a decision-maker sees certain changes as desirable but simply not as desirable as the status quo. Someone might fully believe that she would enjoy relocating to a New Urbanist development and changing her lifestyle to one of "active living." Yet, as tempting as that sounds, she may

still ultimately prefer her status quo with low rents, privacy, spacious floor plans, and convenient parking.

Some of the preferences that lead people to resist change may have a bit more weight than others, as when people are reluctant to give up on all that they have invested in the status quo. Time, energy, talent, and money have gone into making the status quo what it is, and it seems entirely reasonable for individuals to want to protect that investment – even if it means protecting features of the status quo they no longer desire or admire. So, a homeowner may favor policies that provide for affordable housing to counteract the long history of exclusionary zoning in the United States and yet oppose the construction of affordable housing down the street because it seems to undermine the homeowner's investment by lowering property values. Or again, parents may have already committed to sending their children to good schools in the suburbs, even if that means that they cannot readily move to a neighborhood closer to work in order to meet their commitment to what they see as a more sustainable way of living – walking or using transit to get to work, living in a smaller house that uses less energy, and so on.

Durable goods played a role in limiting the efficacy of action because of their high up-front costs. They play a role in limiting integrity in part because of their cost but also because of their very durability. Houses, cars, and pieces of public infrastructure (e.g., roads, buildings, utility networks) do not last forever, but they do last. As such, the built environment and other durables can involve commitment over a long period of time, if only because the purchaser may be financing the purchase for a period of years. As a consequence, individuals are tied to the durable goods they have purchased, which they might experience as a form of stuckness.

A different perspective on investments decision makers have already made in the status quo comes from viewing the built environment as a socio-technical ensemble or set of

ensembles. As a response to both the view that humans have mastery over technology and that technology is coming to have mastery over humans, a number of sociologists and historians of technology have arrived at the view that society and technology shape each other mutually. Hence the idea of a socio-technical ensemble, a complex intertwining of technical hardware and human institutions that gives shape to the built environment (Bijker 1995: 242).

When a socio-technical ensemble first begins to develop, according to Thomas Hughes, society shapes technology: the first outlines of the ensemble (what Hughes calls a technological system) are set down by decisions, interests, economic activities, public policies, and so on – in short, the full array of social dynamics. However, the system gains momentum as it develops, until technology begins to shape society (Hughes 1994: 15). The metaphor here implies that as the system gets moving in a particular direction, it becomes harder and harder to stop or even to deflect toward some other goal. Another branch of technology studies refers to the persistence and resistance of socio-technical ensembles as "obduracy," and recent work by Annique Hommels has opened up the possibility of looking for obduracy in cities understood as large and complex socio-technical ensembles (see Hommels 2000; Hommels 2005).

Hughes' analysis reveals that momentum is largely a function of what people have invested in the technological system. People invest more than money into socio-technical ensembles as they emerge: institutions are reshaped to accommodate and support the emerging system, landscapes reconfigured, and values realigned so that a particular configuration of social and technical dynamics becomes a necessary condition for what people come to think of as a good life. The time to change the direction of a technological system, Hughes (1994: 112-113) maintains, is early on, "before the system has acquired political, economic, and value components."

If some of people take it into their heads to change things, they will not only find themselves pushing up against the vast momentum of the system – a variant of the limits of efficacy – but they may also find themselves pushing up against their own values and their own vision of the good life, given the extent to which that vision has become entangled with particular socio-technical ensembles.

3. The Limits of Autonomy

In asking after the limits of autonomy, we are looking for something different from and much more elusive than constraints on action and conflicts of motivation. We are looking for problems that may arise at the very core of the decision-making process, often beneath the level of conscious awareness.

One prominent tradition in philosophical ethics holds that an action is moral only to the extent that it is chosen freely. For Immanuel Kant, in particular, to choose freely is to transcend any sort of compulsion or coercion from without or from within, to reason for oneself on the way to formulating a rule of conduct that might accord with universal moral law. The Kantian view of morality hinges on the autonomy and dignity of moral agents: I ought always to be subject only to a law I make for myself, and I ought to respect others who are capable of making laws for themselves.

The limits of autonomy are to be found in any instance where people are in effect subject to laws they did not make for themselves, whereby they surrender their own moral reasoning either to the judgment of someone else or to the sway of their own impulses and inclinations. For our purposes, the most interesting cases are those in which people do not know they are not free: they think they are choosing entirely for themselves when in truth their understanding of

what is possible and even the moral principles on which they act have been shaped in advance by the situations in which they find themselves.

That autonomy might be limited in just this way presents us with a methodological puzzle. Our typology is supposed to be focused on the lived experience of individual decision-makers, but we have just proposed that the limits of autonomy involve constraints of which people are generally unaware. How can we make sense of the limits of autonomy while staying within the (somewhat casual) phenomenological approach we have adopted?

One way of getting at the limits of autonomy within the lived experience of individuals is to acknowledge that human beings can engage in critical reflection on their chosen ends and chosen means, and can come to develop new ways of understanding themselves and the situations that call for deliberation and action. Such a process of critical ethical inquiry can be cast as a process of expanding and enriching moral imagination that serves not only to shed light on the limits of a particular way of framing a situation, but also to open up new possibilities for thought and action (Johnson 1993: 217; Werhane 1999: 108).

Looking back from any point in this learning process, individuals may be able to see the ways in which their autonomy had been constrained, their options artificially narrowed. As the process continues, as constraint after constraint is brought to light, it may occur to some, at least, that there is no reason to suppose that their current understanding is the final and best one. The result can be a variant of skepticism, a recognition that there may still be what David Hume (1975: 30) might have called the "hidden springs and principles" that shape their moral understanding, constraints that may be hidden now but that may come to light later on. This entails that the learning process is open-ended and that responsible decision-makers must always

keep asking critical questions about their own understanding and about the means and the ends of their action in the world.

One way of getting a grip on the limits of autonomy is to examine the matter through the lens of cognitive science. There is more going on in the world, and there are more options open to human beings, than anyone can possibly pay attention to. What this means for decision-makers is that they necessarily employ various heuristics to shape their understanding of the situation within which they are trying to make a decision. These heuristics may be deep structures of perception, conceptual schemes, or mental models (see Johnson 1993: 9-10; Werhane 1999: 49-57); they may be common features of the species, acquired habits, or deliberate choices. What these heuristics have in common is that they narrow down the number of options available for consideration (Simon 1982; see Camerer et al. 2004). Put simply, people may tend to focus on only one or two options at a time and only look a few steps ahead.

What is important here when considering the limits of autonomy is that these heuristics are not themselves always, or even very often, the products of deliberate choice. The experience of making decisions can instill a sort of "muscle memory" that makes past decisions and habits part of the present process of decision making. The narrowing down of options may occur before any conscious decisions are made about it, whether the narrowing is due to neurological or social factors. Decision-makers may be stuck before they even get started.

Switching lenses, economics might not at first seem to offer a promising angle on the limits of autonomy. Within the assumptions of classical economic theory, the model economic decision-maker (*homo economicus*) is not generally thought to suffer from limited autonomy: individuals are assumed to be rational and to know their own best interest. Even so, there are several ways in which economists might frame the limits of autonomy.

Even a model decision-maker might be seen to suffer from limited autonomy, at least in the short-term, in situations when the actor makes investment decisions that affect tastes. For instance, models of rational addiction suggest that people might make the choice to become addicts that, while essentially an autonomous decision at the outset, severely constrains the actor's "future self" (see Becker and Murphy 1988: 675-700). Thinking of someone's addiction to oil, to cars, to suburbia, to sprawl, or to some fashion or other, it might well be the case that they find themselves trapped in a vicious system of their own devising that, from an outside perspective – including the perspective of their own former self – is most undesirable. In short, decision-makers can be stuck to the extent that the choices of yesterday dictate the desires of today (Stigler and Becker 1977: 76-90).

Then again, actual people are generally not model decision-makers. For example, their preferences might not be complete, and they are unlikely to have the cognitive capacity or time to devote to continually making trade-offs across all possible options. Instead, they follow heuristics and make choices that are merely "good enough", that is to say, "satisficing" (Simon 1982: 295-298). However, it may be that the autonomy of actual people is compromised because their tastes themselves are determined by outside circumstances: by family upbringing, by the cultural context, and by earlier choices – including perhaps the choice to become addicted to one thing or another. Once we open up the possibility of constructed preferences (Payne et al. 1999: 243-270; Slovic 1995: 364-371; Tversky and Kahneman 1981: 453-458), the autonomy of decision makers seems to wither as outside circumstances play more crucial roles. In addition, the social arrangements and economic institutions in an urban setting might influence the evolution of preferences and culture – which seriously curtails the autonomy of *homo economicus* (Bowles 1998).

Further, it is unlikely that actual people have complete information as they make their choices; they may not be fully informed of the options available to them or the implications of those options. This is in part a function of cognitive filters, which limit the information a decision-maker can pay attention to. It is also a function of what information is available in the first place, which may in turn be a function of various social, political, and economic factors. Individuals can usually conduct research in order to become better informed, subject to transaction costs. However, social pressure and public policy can raise those transaction costs considerably by making it more difficult, more time-consuming, or even more risky to find information that may be important to a decision about some aspect of the built environment. Compared to cognitive limits, then, informational limits offer a relatively easy arena for public policy to address stuckness, simply by making better information more readily available.

A further dimension of the limits of autonomy is revealed through the lens of another variant of technology studies: actor-network theory. Bruno Latour argues that human actors in effect delegate moral competencies to non-human actors by inscribing them with particular meanings and particular ways of programming or channeling human effort. Those non-human actors in turn prescribe certain behaviors to the human actors who interact with them. Latour's (1992) example of the hydraulic door-closer is particularly instructive: a door-closer imposes an energy tax on everyone who pushes the door open, in order to be more competent and more rigorous in enforcing its program ("Close the door!"). To the extent that it can be thought of as a socio-technical ensemble, the built environment is full of such scripts, which human actors "read off" by interacting with non-human actors in various ways.

It may well be that the scripts inscribed in the landscape are originally written by humans, but not necessarily by any one human. To the extent that the socio-technical ensembles are the

product of a struggle among human and non-human actors, any one individual could never exercise direct or complete control over the process of delegating responsibilities to non-human actors. The resulting delegation, according to Bernward Joerges (1999: 422), is not "seen as the result of planful or intentional action, but as a result of consequences of action; consequences of by all means 'intentional', but in principle 'blind' . . . actions of many small actors adapting to the circumstances at hand." As a consequence of all of this, the built environment may well come to prescribe ways of acting that are experienced as alien by any given individual choosing and acting within it.

This is already a challenge to autonomy, but a still more serious challenge arises because the scripts that artifacts impose on other actors are hidden from awareness. In Madeleine Akrich's terms, an artifact can come to be "naturalized," taken for granted as a natural and inevitable part of the world (Akrich 1992: 222; see also Graham 2001: 340). As a consequence, individuals living within a given built environment may find it very difficult to determine when they are writing their own scripts (i.e., acting autonomously) and when they are merely reading off scripts that have been presented to them for no particular reason by no one in particular. The lines of force that run through the built environment can only be revealed by a critical process of inquiry into the particular circumstances in which particular artifacts and sociotechnical ensembles came to be as they are.

III. Extensions

We have distinguished three distinct ways in which decision-makers can get stuck because of the situations in which they find themselves, and we have suggested how different disciplines – particularly philosophy and economics – can contribute to a better understanding of stuckness. In closing, we would further suggest how the investigation of stuckness may be

extended in two different directions: to include the ways in which more powerful actors in the built environment might also be stuck, to consider whether and in what circumstances it might be possible to get unstuck.

Up to this point, our main concern has been the plight of the ordinary individual decision-maker, making fairly ordinary decisions at the periphery of the systems that support metropolitan growth. Yet the notion of stuckness certainly extends to other decision-makers, including developers, activists, planners, and policymakers who are (or want to be) closer to the center of those systems, exercising a more direct influence over the forms and directions of growth. Insofar as they inhabit the built environment, influential actors can find themselves stuck in exactly the same ways as anyone else: they too have to decide where to live and how to get to work, and may find their decisions and actions hampered in the ways already outlined. However, developers, activists, planners, and policy-makers can also find themselves stuck in ways that are particular to their respective roles in shaping and maintaining the built environment.

Consider the example of builders and developers, seen from the point of view of a historian. Developers tend to be risk averse and build in ways that closely resemble predominant forms of development. As Sam Bass Warner (1978: 52, 114) maintained in his study of Boston's nineteenth-century streetcar suburbs, builders then were subject to "regulation without laws": individual builders produced a very uniform product in the absence of explicit regulations or coordination with other builders because everyone in the marketplace was subject to the same technical, financial, cultural, and political "disciplines." These days, developers resist building New Urbanist (i.e., mixed-use, mixed-income) developments largely because of the perceived

novelty of New Urbanist ideas and the risk associated with them (Gyourko and Rybczinski 2000: 733-750).

Planners may also face pressures that may leave them stuck. While planners may universally accept the desirability of growth controls, there are important limits to integrity when attempts to manage growth conflict with attempts to develop the local economic base. This limit to integrity offers challenges within a planner's jurisdiction, as growth controls can induce housing price hikes, congestion problems, and other internal problems (as in critiques of Portland's Metro: O'Toole 2001: 20-25; Phillips and Goodstein 2000: 334-345). Moreover, in a broader social context, planners can face limits to integrity and to efficacy when efforts to curb growth in their jurisdiction will fail or bring harm to their jurisdiction because, in a regional context, development can relocate to another, more lax jurisdiction in a "race to the bottom" (see, for example, Carruthers 2002: 1959-1982). Growth controls and more greenspace can invite leapfrog development, where sprawl is actually exacerbated by efforts to forestall it by pushing development even farther away from urban cores, an example of unintended consequences as a limitation on efficacy (Wu and Plantinga 2003: 288-309; Jun 2004: 1333-1348).

To take just one more example, consider the case of people who are critical of the status quo and want to change it. Activists and advocates for change in the patterns of metropolitan growth might also find themselves stuck, and not only because of the resistance they encounter from those who have vested interests in the status quo. One serious limitation arises from the fragmentation of activism: environmentalists have their domain and their particular concerns, civil rights advocates have theirs, as do advocates for public health, smart growth, and any of the myriad other causes people might adopt. Groups of activists and advocates who are pulling in different directions may only frustrate one another's efforts.

It may be possible for advocates to overcome their differences and band together, whether in an intentional alliance such as the environmental justice movement or recent moves for an alliance of advocates for public health and smart growth, or in opportunistic alliances that make sense only in a particular political moment. That such alliances are difficult could be seen as a function of the limits of integrity writ large, with conflicting motivations among those who identify themselves as opponents of the status quo.

Some of the differences among groups of activists will be social, political, and economic, but there is likely to be a more basic cognitive difference as well: advocates for different causes are likely to have different ways of framing problems and filtering their perceptions. To the extent that the various activists are stuck within their own cognitive limits, always insisting that the problems really are just as they themselves see them, they are stuck within the limits of autonomy. Ostrom offers an excellent discussion of how we can get stuck using the wrong model or metaphor for an environmental policy and how this can lead to policy gridlock and to being stuck with problems because we do not see the levers for improvement (Ostrom 1990: 1-23). If activists lack the flexibility to explore all of the options open to them and to reconsider their own goals, then it is likely that they will get in each other's way, or pull in different directions, or be differentially open to co-optation by more powerful interests, or simply be mired in mutual incomprehension.

As with the preliminary typology of stuckness, there is more to be said about the ways in which more influential actors can also be stuck, and many other disciplinary perspectives that could be brought to bear. The possible stuckness of policy makers, for example, could be examined through the lenses of political philosophy, political science, economics, sociology, history, and so on.

The other direction in which our investigation of stuckness might go is toward the possibility of getting unstuck. Here, though, we need to attach an important disclaimer to the entire enterprise: get unstuck at your own risk.

To this point we have been writing about stuckness as though it is generally a bad thing: it narrows the scope of what people are capable of wanting or willing, and hampers them on the way to achieving what they want or will. And yet, being stuck is not always bad. In fact, some kinds and degrees of stuckness are necessary for human life in the world: the stuckness of friction that saps energy but makes it possible to grasp things; the stuckness of impulses that push human actions in one way or another (e.g., toward food, away from danger); the stuckness of cognitive filters that spare the human brain from having to pay attention to everything at once. While people may chafe against these limits as they pursue their various projects, it is these very limits that define what it is to be a human being and give meaning to the world in which human beings live. To dream of a world of infinite possibility, a world with no limits, is to dream of primordial chaos.

Even some limits of autonomy might have advantages. In their effort to develop an evolutionary theory of culture, Paul Ehrlich and Simon Levin (2005, 943) note that "norms and metanorms provide a cultural 'stickiness' or viscosity that can help sustain adaptive behavior and retard detrimental changes." As a matter of lived experience, the stickiness of cultural helps to stabilize the meaning of the world, providing relatively fixed reference-points that make it possible for people to commit themselves to long-term projects. The challenge may be for people to get themselves stuck in the right way, which among other things may involve a critical perspective on culture that does not merely jettison culture in favor of a vacant cosmopolitanism.

Of course, the idea of getting stuck "in the right way" opens a whole new debate over what 'right' means in a particular circumstance. Still, this might actually be a fruitful way of framing decisions within and about the built environment: Since people have to be stuck with something, what ought they to be stuck with? At the level of public policy, many people in the United States might want to be stuck with the current system of transportation as long as it means that no one will take away what they see as a basic freedom that is central to their happiness: the freedom to drive wherever they want at a relatively low cost and to find a parking space when they get there. Advocates for transit, on the other hand, may push for rail systems over buses because rail involves a firmer commitment. Officials may be able to change or eliminate bus routes, but they are pretty much stuck with rail lines once they are laid.

Should it ever happen that there is a broad consensus that some particular form of stuckness is bad, the next challenge for ethics and for policy is to figure out how to get unstuck in those particular way without having other things come loose that people generally agree ought to stay stuck. This is no simple or easy task, for reasons we have already considered: it is subject to the limits of efficacy – perhaps especially the problem of unintended consequences – and to the limits of integrity besides.

An individual who moves closer to work in order to have a shorter daily commute, for example, might find that other, less desirable changes come with it: the old neighborhood might have meant being stuck with a long drive to work, but it also meant being stuck with other things – quiet neighbors, perhaps, or low traffic – that suddenly turn out to have been important. At the level of public policy, to take a historical example, think of a municipality that decides to separate different land uses through zoning ordinances. People in the community may find that they are no longer stuck with noxious industries near the places where they live, but also that

they have cast off the ties among housing, industry, and commerce that contributed to the vitality of traditional urban neighborhoods (see Jacobs 1992; Kunstler 1994).

These are the kinds of situations in which we think a critical, multi-disciplinary inquiry into stuckness will be most valuable. In order to make clear-headed and responsible decisions, people need to have some grasp of what they are stuck with, what they want to be stuck with, and what is likely to happen if they try to get unstuck. To get this, they need all of the critical tools that can be made available to them. We have pointed out some of the tools that are available from philosophy, economics, cognitive science, technology studies, history, and biology. There is still much more to be said, though, and other disciplines that may provide still better tools for getting at the experience of being stuck. We welcome their contributions.

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