Misbehavioral Urban Economics

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Introduction: Context

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- Why have some fads met with success in regional science, and why have some failed?
- To address this question before getting into the meat, namely the potential impact of the behavioral economics fad on regional science, it is of utmost importance next to compare and contrast the methodology used in economics and regional science.

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- At a superficial level, economists require that models of markets be consistent with the use of prices (wages and rents) and with the optimizing behavior of agents.

- Regional scientists seem oblivious to this, often using models implying that people (including themselves) don't care about the price of a house when they buy it, or models where non-zero price elasticities would falsify their theory.

Introduction: Methodology II

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- In fact, this topic is usually the subject of the first lecture in core Ph.D. micro courses.

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- The stark difference here is in the use of scientific method, and the stage at which mathematics is brought into the research process.

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- *This is how and why fads in regional science bite the dust.*

- I call this "Regional Art," and I see a great deal of it in my editorial work. Very creative.

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- I am hoping, but not optimistic, that the application of behavioral ideas to regional science will take a similar *scientific* rather than *artistic* tack.
- Realistically, I expect that the ideas will be brought in wholesale from economics and shoved into regional science (e.g. NEG) models, whether the assumptions and motivating questions (if any) make sense in this new context or not.

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- But first: What is behavioral economics?

Definition of Behavioral Economics

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- For the questions, ideas and examples we shall consider, we will need to consider one specific variety of behavioral economics.

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- In technical terms, these ideas are called "unexpected utility theory."

Decisions, Decisions

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- The small decisions made by individuals can add up (across agents) to something much bigger. They might be the underpinnings of important phenomena, such as agglomeration economies.

More Decisions

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- For big decisions, satisficing is unlikely to be prevalent because a mistake could cost an agent big time. So **behavioral behavior** should be visible if it is present.

The Role of the Lab

- Due to the presence of many other factors (noise) that can cause apparently anomalous behavior, to isolate the choice problem from these other factors, testing has been moved from the classical laboratory of the real world to the experimental lab.

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1. It is hard to actually implement a context free environment in the lab.
2. It is often context that is important in behavioral theories.

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- If there is something to behavioral economics, we should consider revising our theories, of course.
- But this does not mean throwing the baby out with the bath water.

What Regional Artists Really Want

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- It is possible that these are at the fringes of applications of the theory, or are small enough in magnitude for large markets that the classical theory works well enough, perhaps due to aggregation across agents.[3]
- Careful and *scientific* reading of the evidence does not imply that: the whole theory should be scrapped and replaced with something else, preferably not involving economists at all. Regional artists seem to rejoice at the latter prospect, since it means they don't have to learn basic economics. But in my opinion, you've got to know something to criticize it.

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- When people consider moving or actually move to a new city, there generally remains much uncertainty about their new circumstances, for example their commute, their neighborhood and their schools.

- Although much information can be gleaned from the internet and from current residents, the residual uncertainty can be substantial.

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- Given that there is less uncertainty associated with their current residence, a reluctance to move is understandable. The reasons include risk aversion and ambiguity aversion.

- The extant literature in urban economics, both empirical and theoretical, does not deal well with this kind of uncertainty. In general, it is simply assumed not to exist.

- What are its implications for the way we look at cities?

Motivating Questions

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- Or do loss aversion and endowment effects cause stickiness in the migration decisions of households?

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- In other words, it is hard to isolate the effects of interest from noise.

- So the experiment that would follow naturally, not context free, is to compare in the lab decisions of consumers without the endowment of a house and location (but just a budget, like a new migrant to a country), and consumers who are identical but endowed with a house in a community.

Isolating Misbehavior II

- One could also look at real world data, for example comparing locations chosen by new immigrants to a country with locations chosen by people already resident in a country, though the controls would have to be extensive. In other words, are location decisions sticky, and if so, why?

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- If they are sticky, there might be a role for government to improve *ex post* welfare by subsidizing moves through the tax system.

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- Consider first a standard equilibrium model of cities. Suppose for simplicity of exposition that all people are identical. The standard model has no uncertainty or moving costs.

- Then people will move to the city where they are happiest. Only those cities that offer the highest level of happiness will have positive population. Those cities that offer a lower level of happiness will be empty. (The resulting equilibrium allocation might not be first best due to externalities.)

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- Here is why. Consider people in the city generating the lowest, or close to the lowest, level of happiness. As in the case without uncertainty, they know that any other city will generate a higher level, at least in expected utility, though they might not know the happiness level for each particular city. So that unhappy city will empty.

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- This process will continue until only the cities at the top of the distribution are left, and all consumers know that. Thus, under the assumptions of the standard model, and using expected utility theory, only the top cities survive.

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- Cities with relatively unhappy residents do not empty. Such agents are fearful of moving because they believe that the city they move to could be worse than their current city of residence.
- There are applications of this idea to the welfare economics of systems of cities and to explaining the size distribution of cities as well as to the interpretation of quality of life indices.

Conclusions

- Are the location decisions of firms and consumers sticky, and if so, why?