

Five Challenges in Understanding Consumer Decision Making

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- The usual disclaimer applies.

Plan of the talk

- Caveats.
- Dealing with “tendency”.
- The five challenges.

- I generally try to avoid “more questions than answers” talks but thought this once I could make an exception.
- Some of these ideas are backed up by other research I can discuss but I find it is almost impossible to do anything else once you “go through” a published paper so I didn’t really want to start from there.

Dealing with tendency

- By its nature, it is hard to say anything convincing about “tendencies” in research, particularly when that tendency seems to be towards increasing isolation. You are likely to get shot down on detail from all sides.
- I went through SCOPUS for <decision AND making> on 23.09.2011. Got 32,792 hits. Scanned the first 1000. Had to go a long way to get a “straight ahead” economic journal (700 hits or so) and never got anything in four recognisably good “general” sociology journals (AJS, ASR, Sociology, BJS).

Tentative observations

- Economics doesn't feel the need to say it is all about decision making.
- Sociology really doesn't have much to do with this topic at all.
- Other social sciences seem to consider it less than you might think. (For example, the psychology journals in which the key words appear are not particularly well known.)
- The limitations of this “research” (which is more of an intuition check to be honest) are too obvious to need stating. By all means prove me wrong with better data!

First challenge

- Are we aware of what are we looking for? A generic theory of decision (like rational choice) or a “palette” of plausible decision making strategies?
- If the former, how do we reconcile the generic theories growing up independently in the social sciences? (This is a big problem since the social sciences don't even agree on data collection methods. No interviews in economics. Few experiments in sociology. Can theories in discipline X actually be disproved using data it is disposed to collect? Interesting opportunities?)
- If the latter then how do we decide which element of the palette to use for a particular decision? How do we distinguish, given what we actually see, a habitual decision from a rational decision from a normative decision?

Fundamental problems

- It is hard even, across the social sciences, to agree what might be meant by a “theory” or “model” of decision.
- We might say that, in the most general terms, decision collects (and/or draws on) some information relevant to an identified context, does something with it and, on that basis, gives rise to a recommended action.
- However, how this framework gets “filled in” divides disciplines sharply and is seldom justified. Economics: choices known, preferences well defined, context effectively irrelevant (generic theory), little use for memory, learning or other kinds of reasoning (like moral reasoning), no attention to “action failures” (lack of skill or resolve, simple “slips”), typically formal representation. Sociology and psychology: Consideration of social sources of information/reasoning (socialisation), awareness of non rational motivations (possibly not reducible to self interest), potentially narrative representation (typologies, stages) and so on.
- We are returned to the key issue: Do we view these models as all potentially correct in appropriate domains (but then pay a lot more attention to finding out which are appropriate in a specific domain, recognising that some models may turn out to be “non applicable”) or allow that some models may just be “wrong”. (When is it useful to “throw out” a model? Example of ultimatum game.)

Summing up

- The social sciences disagree quite profoundly on what data is to be collected regarding decision and how we might formulate models or theories of decision. These disagreements do not seem to be evidence based. (Frey.)
- This adds another layer of challenge to the problem of “integrating” theories quite apart from its intrinsic difficulty.
- Worse, some aspects of this problem may be “invisible” within any particular social science.

Second challenge

- Missing possibilities: Couldn't find a single "real" social science application of case based reasoning (CBR) even though it seems as plausible as rational choice.
- CBR matches situations to rules and then indicates a decision: "If the exhaust is smoking and the engine is misfiring then clean the spark plugs".
- This approach allows the "evolution" of specifically contextual decisions. (It also allows, for example, analogical reasoning.)
- A CBR "expert" is not always right but has a large enough data base of possibilities that almost any real situation generates a "sensible" action (and not a "guess").
- Again, the question, what are the "symptoms" of CBR in real contexts that allow us to identify it? Why has it not been considered as part of our palette? Worrying?

A thought experiment

- AAAABBACAAABBCCCAAAB
- How is choice occurring between options A, B and C? (D?)
- Instead we need, somehow, to identify context:
- [X A] [X A] [X A] [X A] [Y B] [Y B] [X A] [Z C] ...
- Here we see no variation in decision over single contexts which narrows the set of possible theories.
- We might also find [X p1 A] [X p2 B] implying some sort of economic rationality.
- Obvious ways of accessing context are experiments (where it is controlled) and qualitative methods (where we access the subjective perception of it directly).
- “Clever” solutions: Dual players recorded, fire fighters.

Third challenge

- Dynamic decision: What is it about decision making “over time” that we need to capture?
- Information accumulating “anyway”.
- Decision “triggered” by events (hearing someone else decided, getting a key piece of information).
- Social transmission of information but also algorithms of decision or their components. (How did you decide on a school for your child? Downs example.) Compare just waiting for the “empty boxes to fill” in a dynamic version of rational choice.
- Changing size of the choice set (religions example).
- Again, a suitable subject for interviews and experiments?

Fourth challenge

- Real novelty: Why and how in 1920 did someone decide to buy the means to “powered flight” (an aeroplane?)
- We have a social “existence proof” that people can manage such things: Novelties (even major ones) are not simply disregarded.
- CBR gives an “easy” answer that this “seems to be like” something else that I value or enjoy. This also makes potential predictions about who early adopters will be.
- Rational choice on the other hand appears to get rather stuck. (Implicit preferences?)
- Again, this can be seen as a matter of context. Does my theory “need” to be able to cope with lots of novelty? Yes for electronic goods, no for groceries? (Scoping data?)

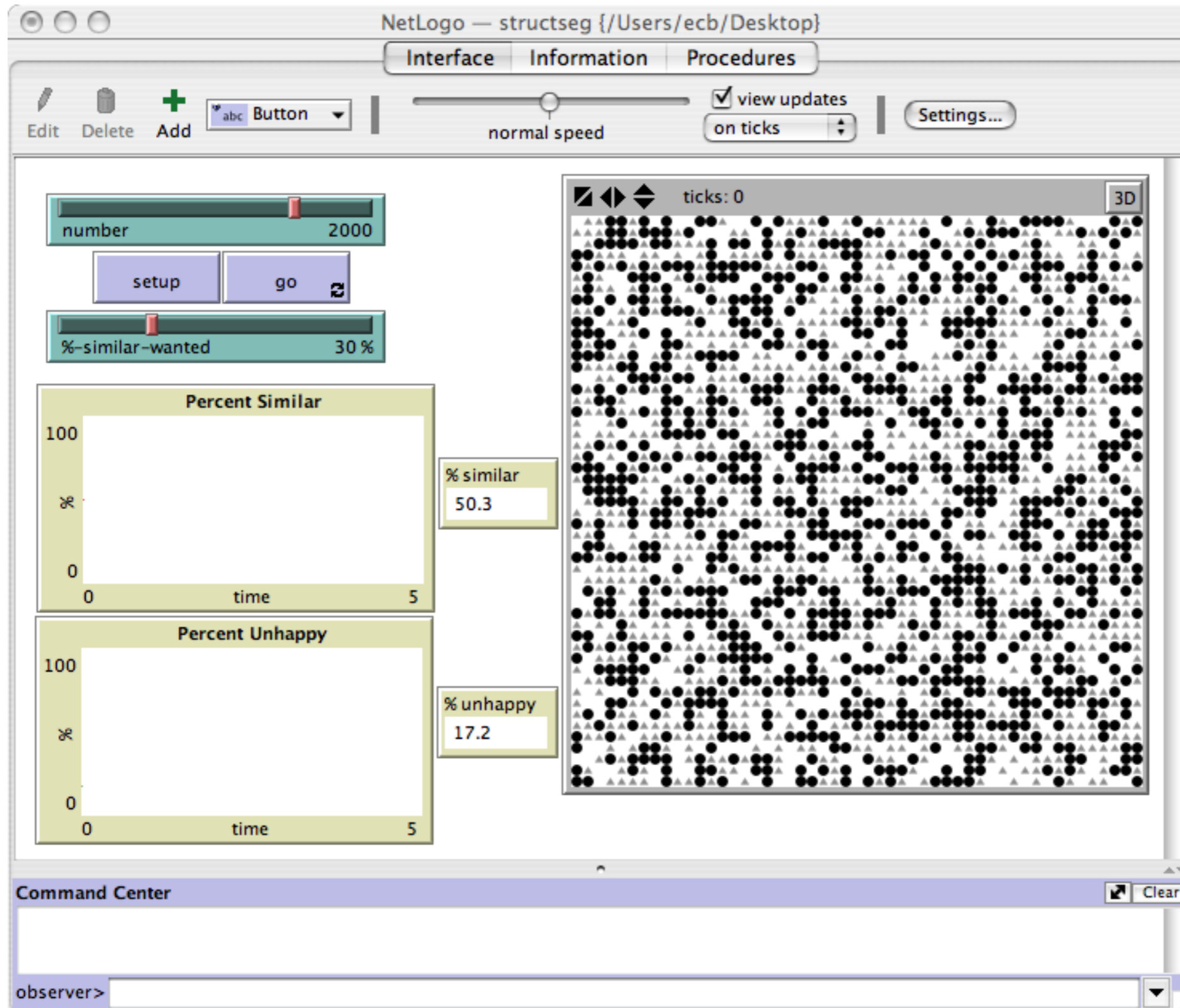
Fifth challenge

- How do we test theories of decision?
- I have already hinted at this: Experimentally, broadly construed (vignettes, lab experiments, role play).
- But we still need to find ways of identifying decision context independent of decision taken in real situations (so we know when any particular theory “applies”).
- Can we ask people how they “see” situations: Does “contextualisation” have patterns that can be accessed as decision does?

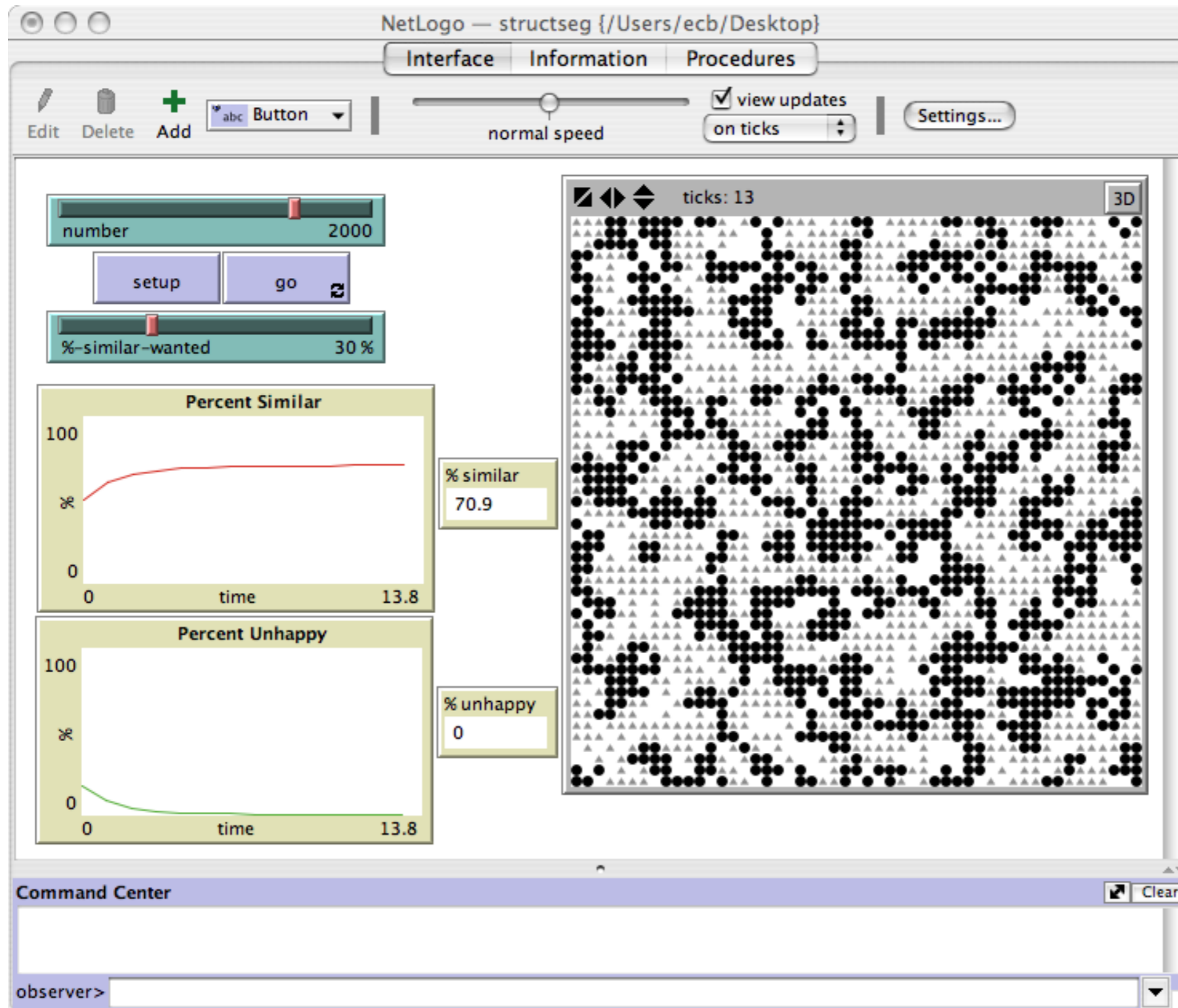
Summing up

- A real subject finds themselves in a “situation”, draws on a model for decision making “appropriate” to that situation and decides. (Rational choice could be right that the middle step is unnecessary but could equally be wrong since that claim is not tested.)
- We don’t have too much difficulty devising models for decision and tracing out their implications. We have more problems identifying the situations in which they should be used and testing them.
- Matters are made worse by “non argued” differences between the disciplines about what we ought to be doing here.

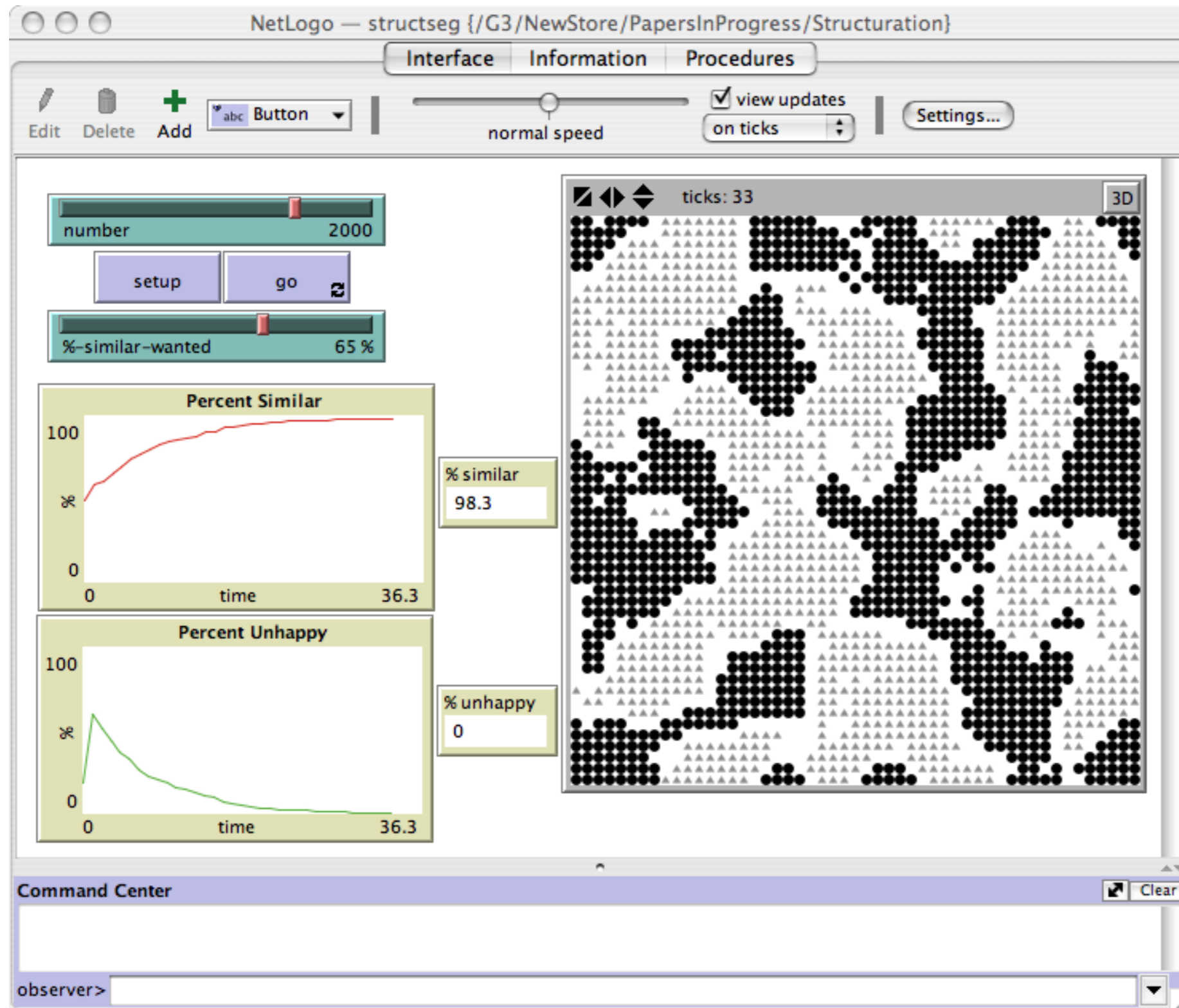
Why I like computer simulation



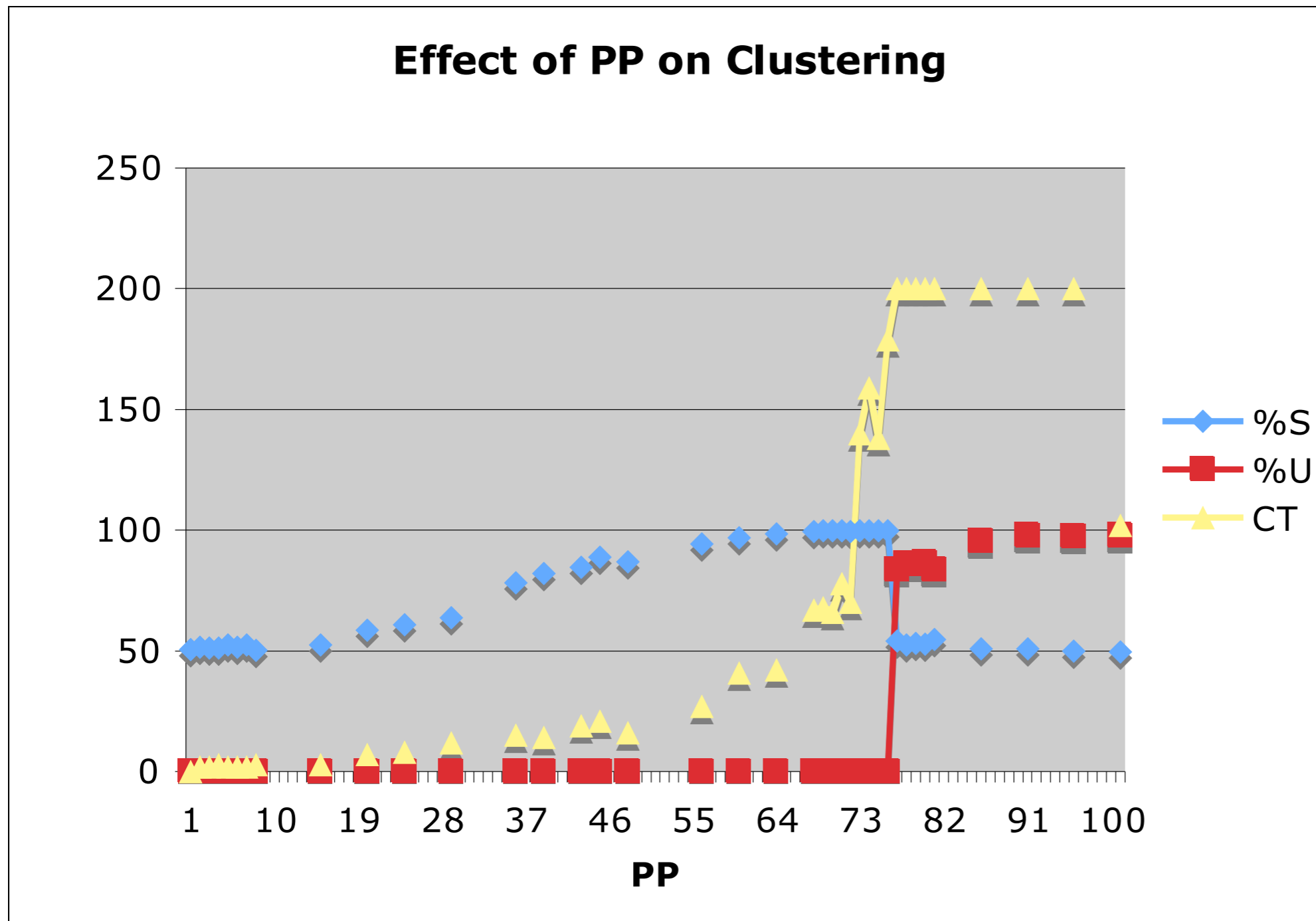
The Schelling model



Non-linearity and emergence



Que pasa?



Challenges revisited

- This approach enshrines a description of a process but not a disciplinary dogma.
- It can be calibrated on qualitative data and validated on quantitative giving potential for falsification.
- Some attempt to create entities that could be revisited in the real world (buffer zones). Potential for “contextual analysis”.
- Can explore different “foot prints” of generic and “palette” approach to decision making (or alternative competing decision models).
- Rigorous but not reductive? (Quals versus quants, bridging the micro/macro “gap”.)
- Dynamics and novelty: IOMTDL!

A “real” example

- How do people choose when they don't know all the choices available? The “social diffusion” of possibility.
- Hard to represent without simulation.
- What do we discover? Minorities are disadvantaged by the “hegemony” of certain kinds of choice information. (For example, heterosexual and homosexual behaviour.)
- Chattoe-Brown (2009) ‘The Social Transmission of Choice: A Simulation with Applications to Hegemonic Discourse’, *Mind and Society*, 8(2), December, pp. 193-207.

Another example

- How do firms set prices?
- Genetic Programme “trees”: Firms start with observables and operations they “know how to do” and build their own decision rules.
- What do we discover? The system can stabilise itself in a very dynamic environment. “Stylised facts” about real pricing (convergence on salient outcomes, price following) “emerge”.

Tentative conclusions

- Simulation (particularly ABM) gives us a “new place to stand”.
- Can we develop good methods for “scoping domains” qualitatively rather than starting from theory?
- If we want to follow the palette of strategies approach, how to we avoid missing important possibilities like CBR? (How many genuinely different approaches to decision making are there?)
- Can we get sensible discussions going about the unargued barriers between disciplines?