

Comment on: A Neuro-Autopilot Theory of
Habit: Evidence from Canned Tuna
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State Dependence and Habit Formation.

- There are many possible reasons for observing state dependence (learning, habit formation, unobserved heterogeneity, rational inattention, sunk costs ...).
- The literature on choice given that there seems to be state dependence, roughly divides into
 - those who treat the choice problem as a static choice problem, and
 - those who assume the state dependence induces the agent to incorporate forward looking behavior into the decision as to what to choose thus generating a dynamic problem.

- Probably the way the impact of state dependence on behavior should be modeled depends on the context.
 - How important is the decision to the individual?
There is a time and effort cost to computing an optimal dynamic policy, and that cost may not always be warranted.
 - What we are interested in.
 - the mechanism generating the state dependence, or
 - insuring reliable estimates of an alternate parameter (like a price effect) when the data seems to exhibit state dependence.
- Lets accept that analyzing buying cans of tuna through a static model is appropriate.
- Given that, there is still a question of which static model to use, and how to control for other factors.

- There is a close relationship between the current model, particularly the extended model introduced towards the end of the presentation, and a "rational inattention" model. I would suggest you point that out, as this fits into more than one literature.
- The reinterpretation would be that the agent does not "pay attention" unless there is
 - either a change in the utility derived from the given choice, or
 - a noticeable change in the products competing with that choice.
- Once a large enough change is observed, the person reconsiders other choices.
- An advantage of this reinterpretation is that it lends itself to a different interpretation of coefficients
 - For e.g.; what price change is needed to incur the costs of recalculating, and what price change is equivalent to for paying attention to the display.

- Issues I am not sure of
 - As I understand it, the model implies that the more times an individual purchases a given good, the smaller the change required to get the person to re-evaluate. Is this in the data?
 - When I am induced to re-evaluate due to a change in the characteristics of a competing product, should I re-evaluate all products, or just the particular competing product?
 - When I re-evaluate due to price change on the product I have consumed in the prior period, I somehow know the utility (including the random draw on ϵ) for all products.
 - This seems at odds with my interpretation of it being costly to evaluate products. Regardless it will be especially problematic when the choice set is very large (e.g. which car to choose?)
 - There is still the issue of how unobserved characteristics effect your results (I could like a particular brand of tuna); of particular concern is the reliability of the the price coefficient for counterfactual evaluation.