

Lecture 4h: Choice over Time

Final Thoughts

EC 404: Behavioral Economics
Professor: Ben Bushong

April 2, 2020

A hard question

Janette is present biased with $\beta = \frac{1}{2}$ and $\delta = 1$. She works at a cigarette factory—she has made poor career choices, given her issues with self control. One of the “perks” of her job is that Janette gets up to three packs of cigarettes for free each day. A lifetime of smoking has caught up to Janette, and she is going to die on Friday (today is Monday).

If Janette smokes on day t , she gets utility $u(c_t)$. If she grabs a pack of cigarettes on any given day, she will smoke them that day. Her utility schedule is as follows:

$u(\text{one pack}) = 10$; $u(\text{two packs}) = 15$; $u(\text{three packs}) = 19$.

However, for **each pack** she smokes, she incurs a future cost on all her later days of -4 (again, per pack). Moreover, on any given day if she smoked *at all* the day before, the utility of smoking is decreased by 8.

Question: From a Day 1 perspective, what is Janette's preferred plan for her smoking on this the last week of her life? (Note: this may not match her behavior, as it depends on her sophistication or lack thereof).

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