

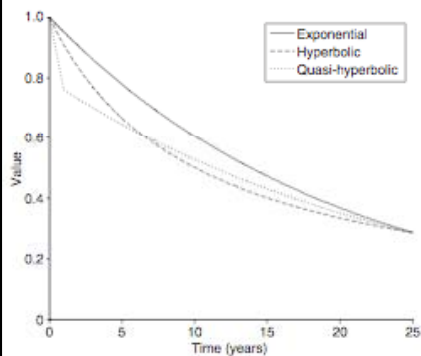
Discounting Earned Versus Free Products

A project at the IAREP/SABE/ICABEEP
Summer School 2010 by Diogo Seco
and Leonhard Lades



The stylized fact about inter-temporal choice

Humans are not rational when they have to choose between a soon small reward vs. a later large reward (impatience, inconsistency).



What are the factors influencing the individuals' discount functions?

Does the difference between **earned** and **free** has an effect?

If so, does this effect vanish when consumption is delayed?

3

Factors influencing inter-temporal choice

- Nonmonetary reward is discounted steeper than monetary reward (Aisle, 2007).
- Smaller nonmonetary rewards are discounted steeper than larger nonmonetary rewards (Petry, 2001).
- People sometimes enjoy waiting (Anticipation effect).
- Probability and delay are discounted differently (Green & Myerson, 2004).
- Present-biased preference (Donoghue & Rabin, 1999).

4

Earned products versus free products

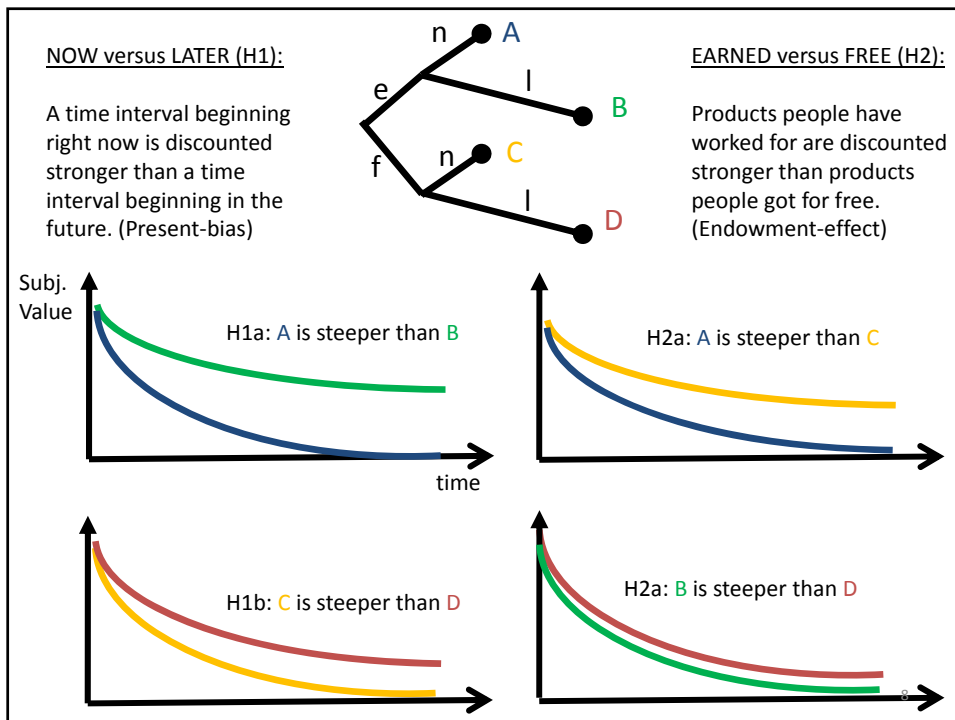
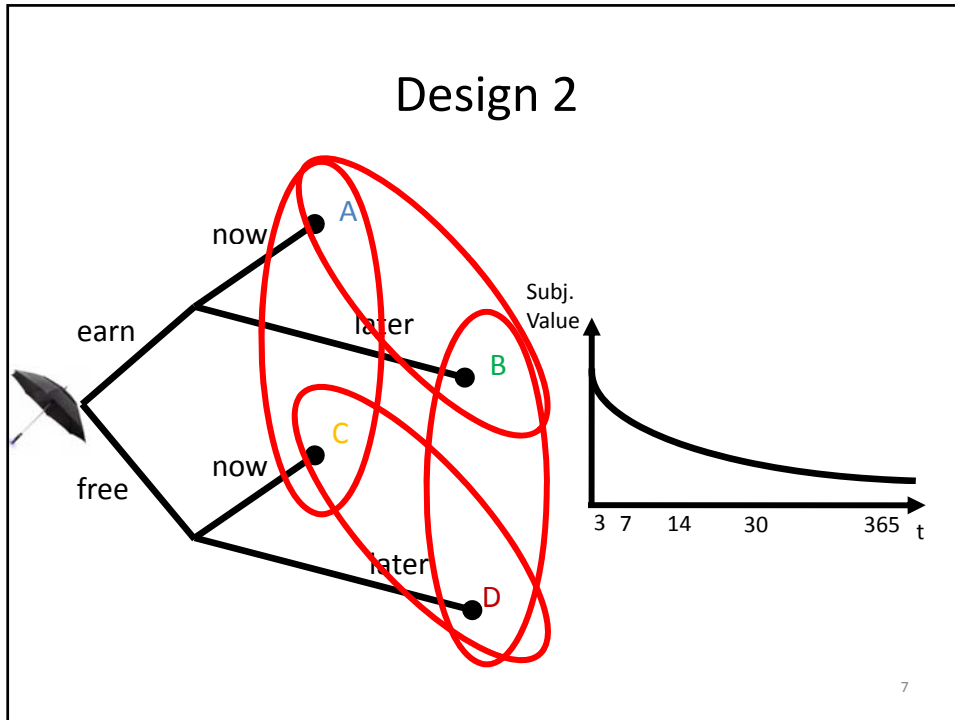
- Effects on subject behavior?
 - No effect (e.g. Clark, 1998, 2002; Rutström and Williams, 2000; Ball et al., 2001).
 - Effect on marginal propensity to consume and risk taking (Arkes et al., 1995; Thaler and Johnson, 1990).
- Preferences depend on:
 - The type of initial endowments: Money, products.
 - The way the initial endowments were received: Buying, earning, for free, as a gift, gambling.
- To our knowledge, it has not yet been tested whether the earned-vs.-free effect influences discounting functions.

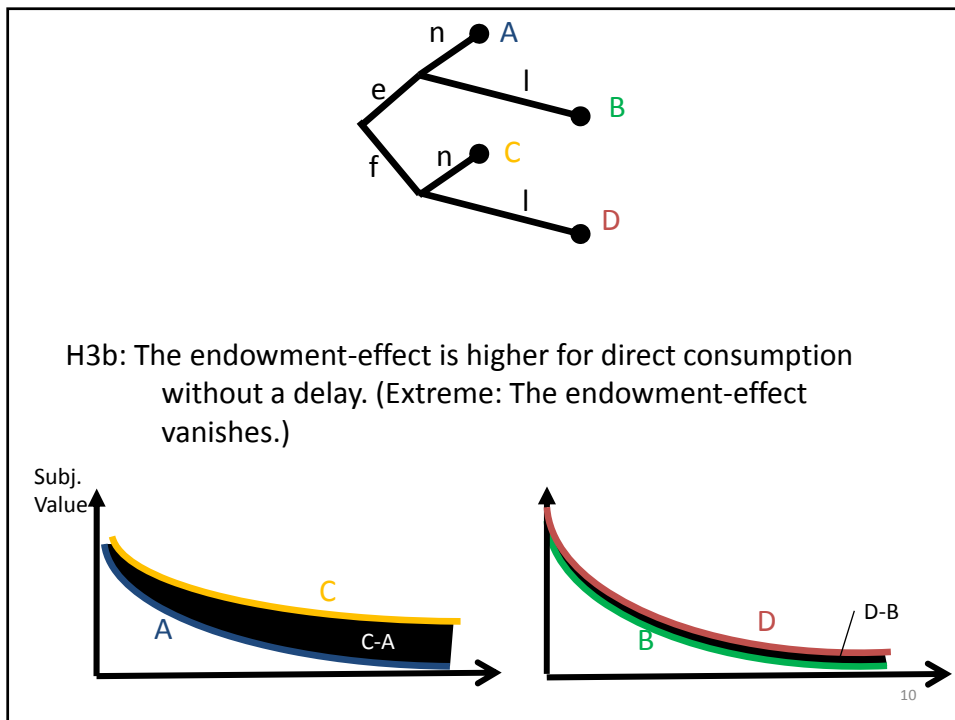
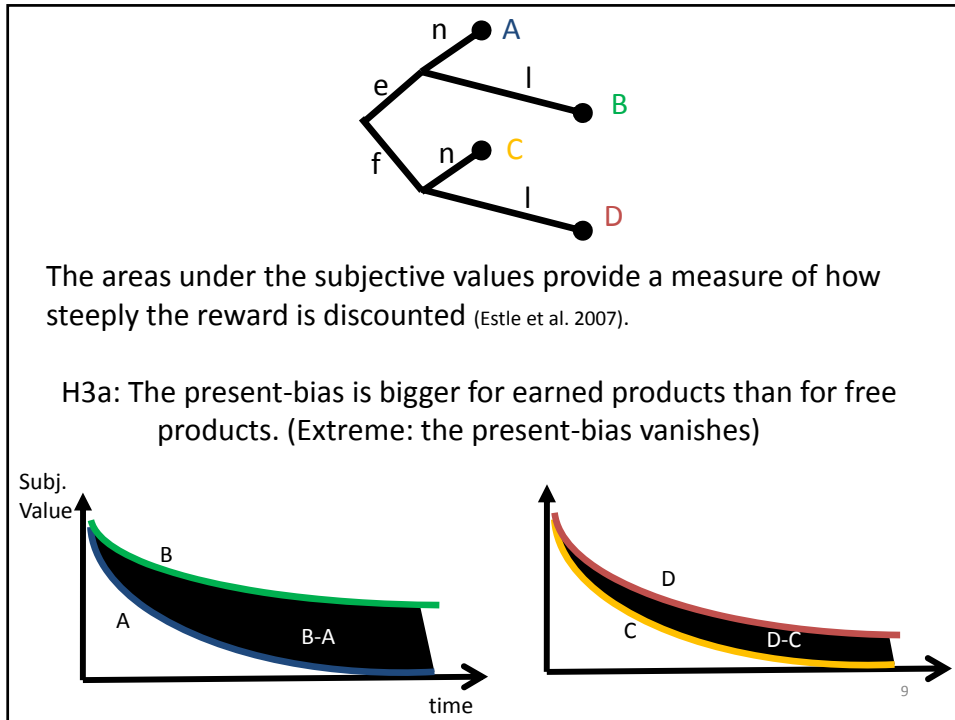
5

Design 1

- 2x2
 - FREE or EARNED (between-subjects)
 - NO or LATER (within-subjects)
- 4 willingness to pay question.
- In each of the four conditions: 5 questions
 - Delayed premium procedure (Loewenstein, 1988)
 - How much do we have to pay you for a delay of... ...three days, ...one week, ...two weeks, ...one month, ...one year?
 - Leading to 4 discounting functions (with 5 points each)
- Umbrella (functional, individual, relevant)

6





Hypotheses

- H1: A time interval beginning right now is discounted stronger than a time interval beginning in the future. (Present-bias)
- H2: Products people have worked for are discounted stronger than products people got for free. (Endowment-effect, earned property right)
- H3: Both effects strengthen each other. (Extreme: One cannot be without the other.)

11

Preliminary Results



N=15

Less participants finished the FREE questionnaire.

Umbrella now: median 35; Umbrella later: median 15

12



Limitations

- Experimental design.
- Hypothetical method: “Consider...”, “Imagine...”
- Rank order effect
 - Within-subject manipulation
- Performance vs. Effort
- Only one product considered
 - It is not a tempting good
 - ↑ functional, ↓ symbolic
 - ↑ individualistic, ↓ social

13



Future work

- This was a pilot. If it works...
- Comparing different products: individualistic versus social, functional versus symbolic.
- Different rewards: Money, social reward.
- Different parameters: Probability, aversive conditions.
- The task → performance (internet application).
- Delete rank order effects.

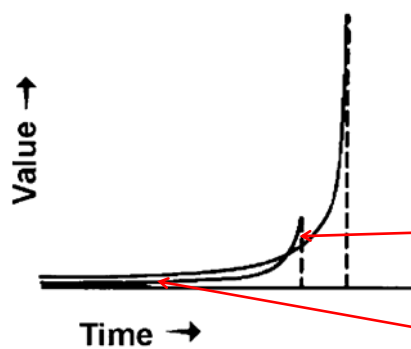
14

Thank you!

15

The stylized fact about inter-temporal choice

Humans are not rational when they have to choose between a soon small reward vs. a later large reward (impatience, inconsistency).



What are the factors influencing the individuals' discount functions?

Does the difference between **earned** and **free** have an effect?

If so, does this effect vanish when consumption is delayed?

16

- 2x2
 - For free OR earned
 - Obtain now OR obtain later
- In each of the four conditions: 5 answers
 - How much do we have to pay you for a delay of ...
...three days, ...one week, ...two weeks, ...one
month, one year

