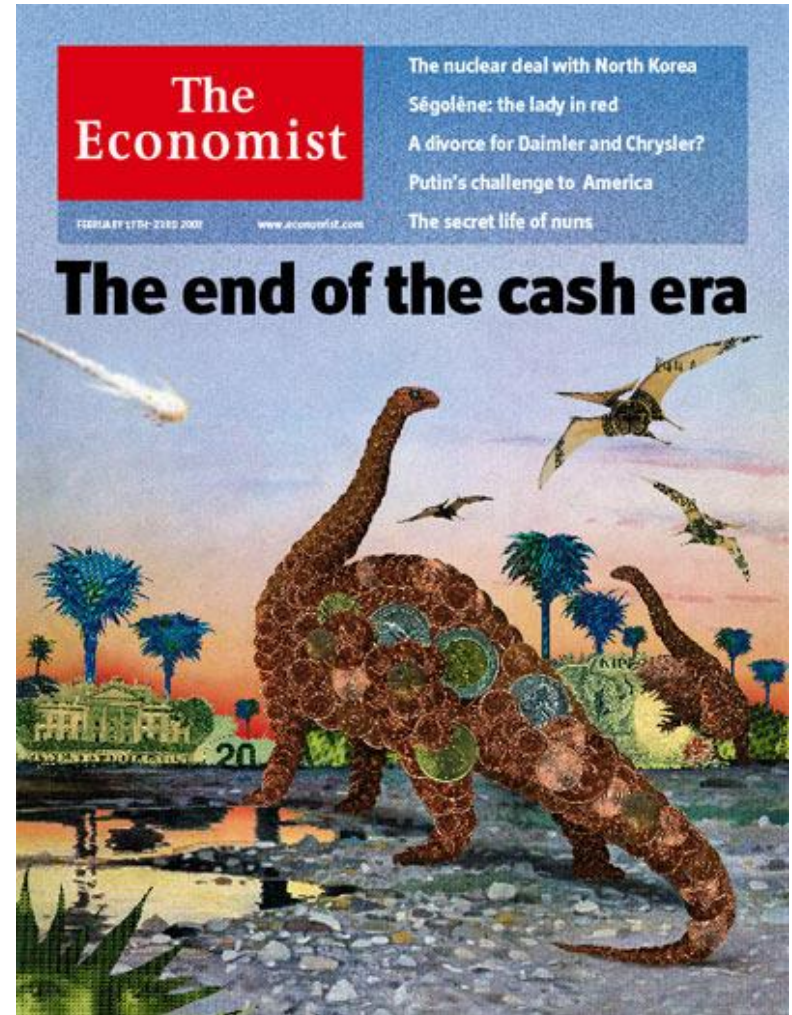
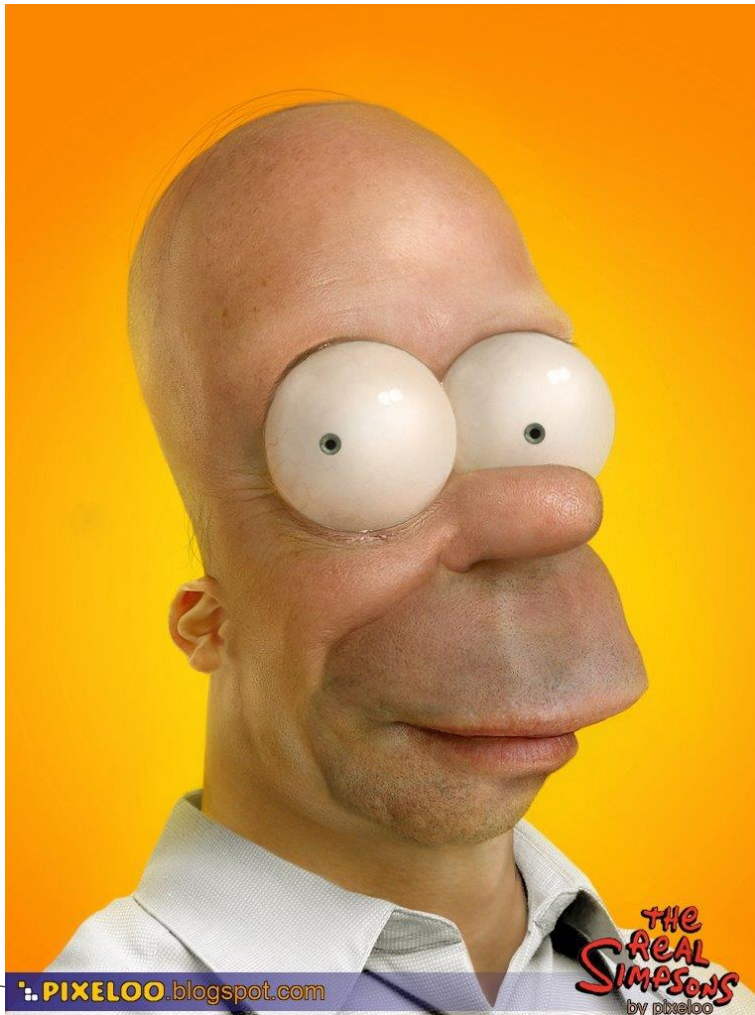


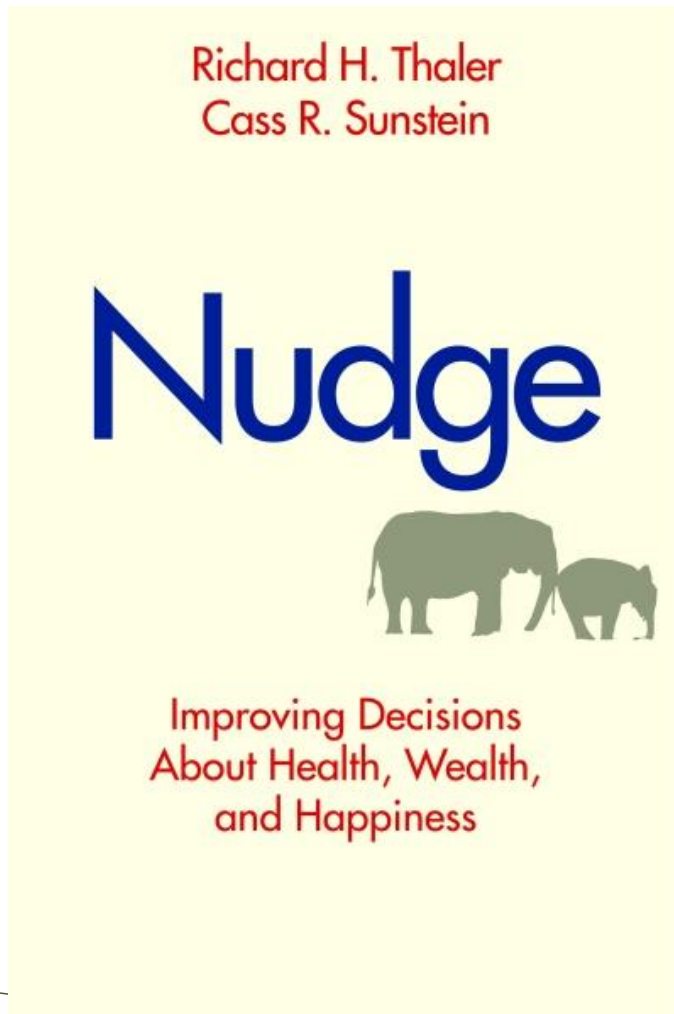
# Could 'nudges' steer us towards a less-cash society?

Leo Van Hove  
Vrije Universiteit Brussel

?



# Nudge



- behavioural economics
- **T & S' claim:**  
seemingly small changes in the choice context - 'nudges' - can have massive effects on people's behaviour
- **my Chapter:** policy suggestions for WOC?

# Agenda



1. Why?
2. How?
3. What is 'nudging'?
4. Nudging in the payments sector
5. An experiment in Belgium

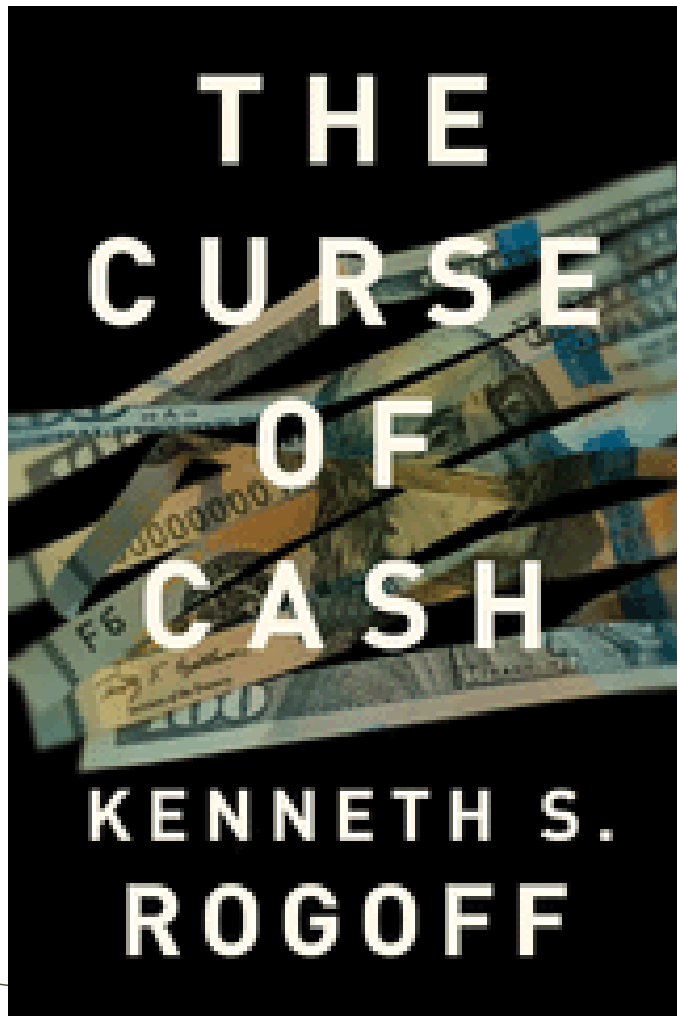
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# 1. Why? - Crime and tax evasion



## THE WALL STREET JOURNAL

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<http://www.wsj.com/articles/the-sinister-side-of-cash-1472137692>

LIFE | IDEAS | THE SATURDAY ESSAY

## The Sinister Side of Cash

Paper money fuels corruption, terrorism, tax evasion and illegal immigration—so the U.S. should get rid of the \$100 bill and other large notes



ILLUSTRATION: JUSTIN METZ

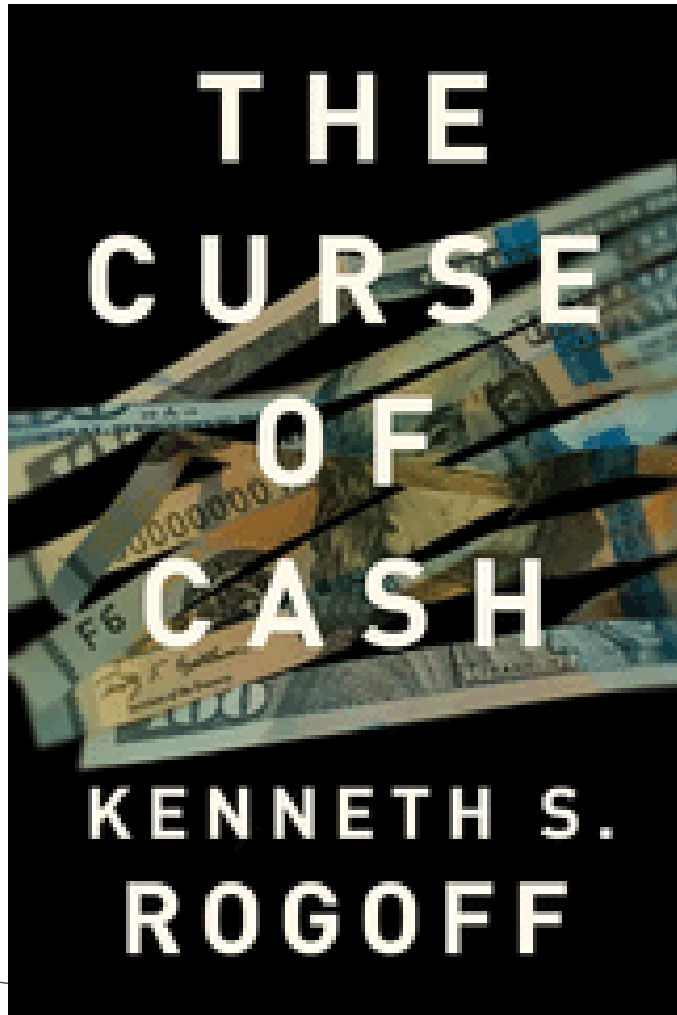
By KENNETH S. ROGOFF

Aug. 25, 2016 11:08 a.m. ET



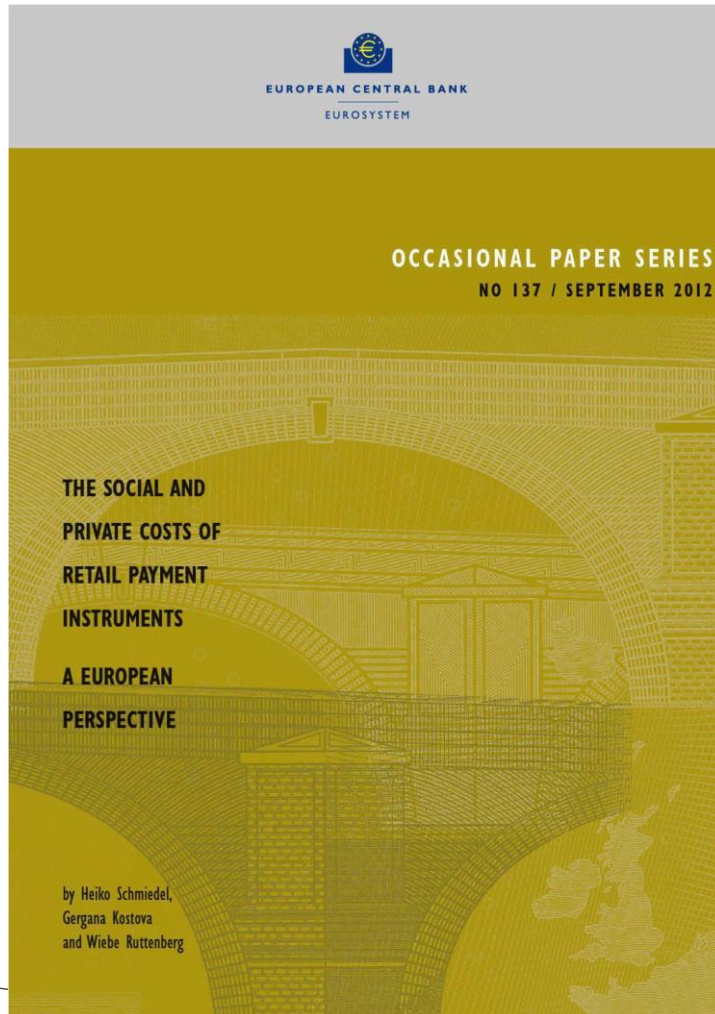
Vrije  
Universiteit  
Brussel

# 1. Why? - Crime and tax evasion



- “paper currency, especially **large notes** such as the U.S. \$100 bill, **facilitates crime**”
- “Of the more than \$4,200 in cash that is circulating ... for every man, woman and child in the U.S., **almost 80%** of it is in **\$100 bills**”

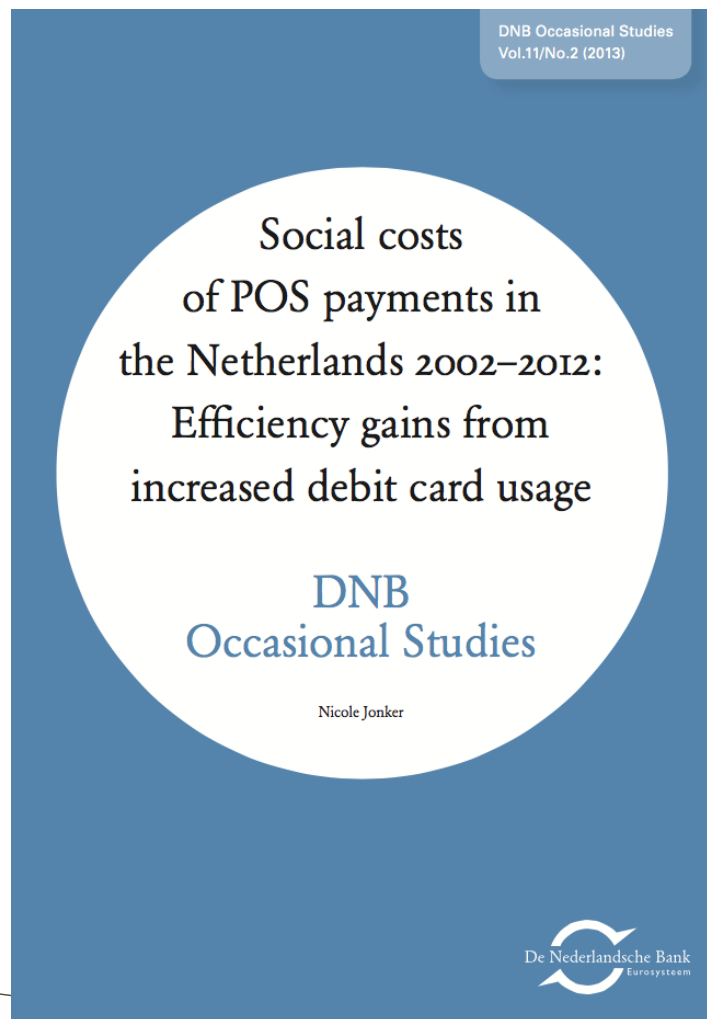
# 1. Why? – Efficiency ~ Social cost of cash



- 13 EU countries
- cash, cheque, debit and credit card, direct debit and credit transfer payments up to €50,000
- **total** social cost **0.96%** of GDP
- + households = + 0.2%
- social cost of cash **nearly half**
- ***marginal*** social cost!



# 1. Why? – Efficiency ~ Social cost of cash



- 2002      **0.46%** of GDP = EUR 305
  - 2009      **0.31%** of GDP = EUR 245
  - 2012      **0.28%** of GDP = EUR 226
- 
- **number of debit card payments**  
more than **doubled** between 2002  
and 2012

private costs! (SEB, 2015)

- **cash** payment costs **merchants**  
**EUR 0.25**
- **debit card** payment **EUR 0.19**

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## 2. How?

- try to lower **costs**?
  - plastic banknotes
  - more efficient distribution
  - ...
- try to lower **usage**? <<<
  - the **natural way** = innovation, 'game changers'
  - the **hard way** = cost-based pricing
    - make social cost visible to users
    - explicit % fees for ATM withdrawals
    - fees ~ social cost (not = !); align private and social costs
    - but: nobody really keen ...
  - the **soft way** = nudging

# Agenda



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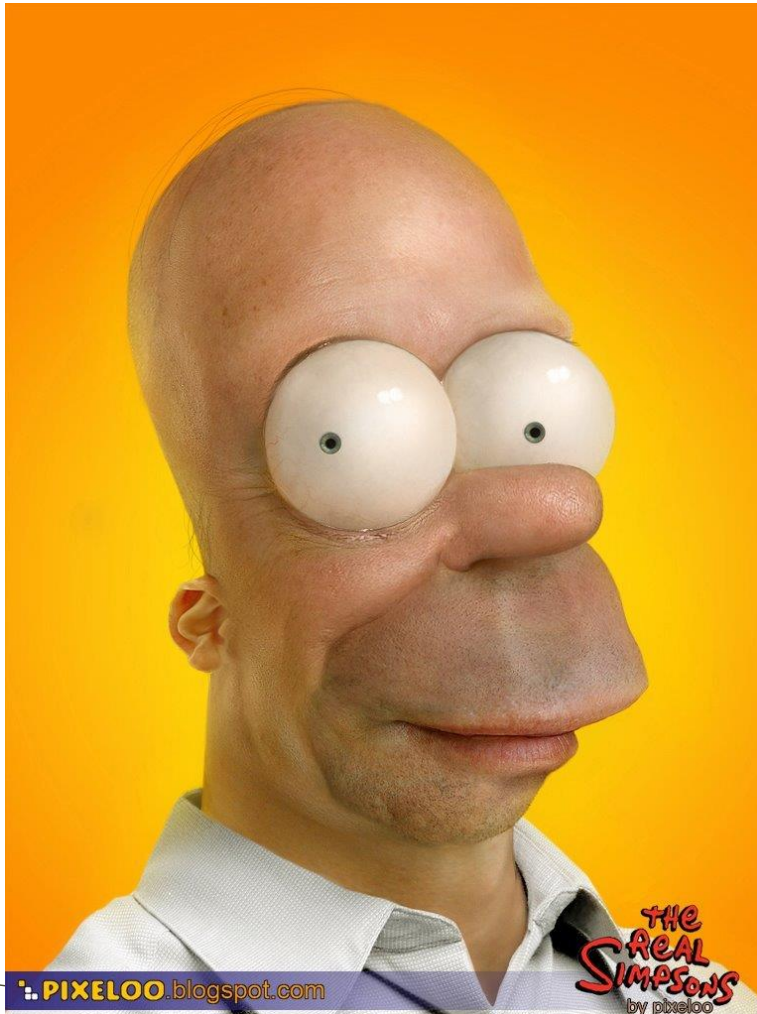
### 3. Nudges: quid?

- steering people in the 'right' direction by making **subtle changes to the choice context**
- paternalistic = someone knows what's 'right'
- libertarian = people should be free to choose
  - ! no significant change to people's economic incentives
  - ⇒ cost-based pricing does *not* qualify

**"soft, and nonintrusive type of paternalism [where] choices are not blocked, fenced off, or significantly burdened"**



### 3. Nudging: why would it work?



- we are not as smart as we think we are
- we are less rational than policymakers and economists think
- we make bad choices
- we all have a bit of the impulsive weak-willed Homer Simpson in us
- we could use help ...

enter libertarian paternalism

### 3. Nudging: why would it work?

- Reflective System vs. **Automatic System**
- our inner Homer Simpson has a tendency to go along with the status quo or **default option**
  - T&S: "the combination of loss aversion with mindless choosing implies that if an option is designated as the 'default', it will attract a large market share"
- we use heuristics or rules of thumb
  - **anchoring heuristic**: guesses are influenced by irrelevant anchors
  - anchors can serve as nudges

### 3. Nudging: why would it work?

- **social influence** is very effective
  - information
    - T & S: "sometimes the practices of others are surprising, and hence people are much affected by learning what they are"
    - energy use example
  - peer pressure

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## 4. Nudging in the payments sector

- harness power of inertia => make electronic **default option**
  - difficult at POS, only between cards
  - different at U-POS
  - anchoring heuristic + default at ATMs
- social influence
  - “80% of our customers pay by card” (hidden message: why don’t you?)



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# 5. An experiment in the VUB canteen

(PhD of Sibel Aydogan)

## setting

- university canteen, used by personnel and students
- attempt to promote payments with Belgian debit card

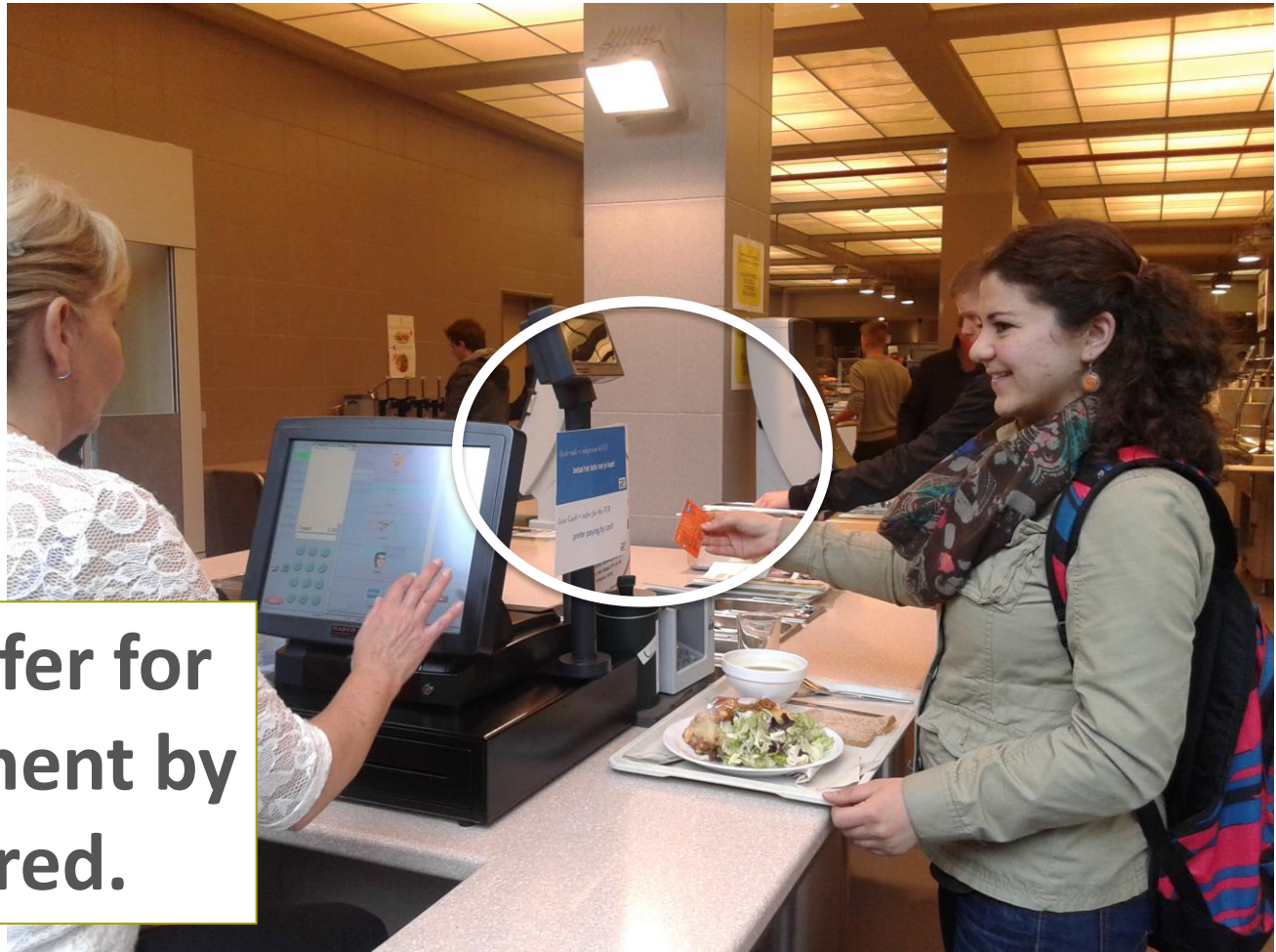
## type of nudge

- provide information + harness social norms
- in particular exploit connection with *alma mater*

## in practice

- selection of pro-card slogan
- posters attached to all cash registers
- 8 weeks

## 5. An experiment in the VUB canteen (PhD of Sibel Aydogan)



**Less cash = safer for  
the VUB. Payment by  
card preferred.**

# 5. An experiment in the VUB canteen

## time series analysis on sales data

- students: **no effect** ...
- VUB employees: **+2.8 pp**, but only temporary
- level of attachment matters

## post-experiment survey (n = 399)

- only 46% had actually noticed our posters ...
- 23% of which said they had changed their behaviour
- = **10%** of population  $><$  time series analysis

# 5. An experiment in the VUB canteen

## post-experiment survey

- habits are 'sticky'
- NL: van der Cruijssen, Hernández & Jonker (2015) show that *people overestimate card usage*

## qualification: explanations for lack of success

- canteen = low-value payments
- surcharge of EUR 0.10 for transactions < full menu
- how do students obtain cash? => 'cash first' rule?
- impact of meal vouchers



# This clearly did not happen ...

