

An introduction to behavioral economics

Chapter 1

Matilde Giaccherini

What is behavioral economics?

It is about understanding economic behavior

- Why do we make the choices we do?

The goal is to improve economic models so that they better fit to reality.

Colin Camerer and George Loewenstein (2003):

‘At the core of behavioral economics is the conviction that increasing the realism of the psychological underpinnings of economic analysis will improve economics on its own terms.’

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Let's try to pair these elements with the following pictures...

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

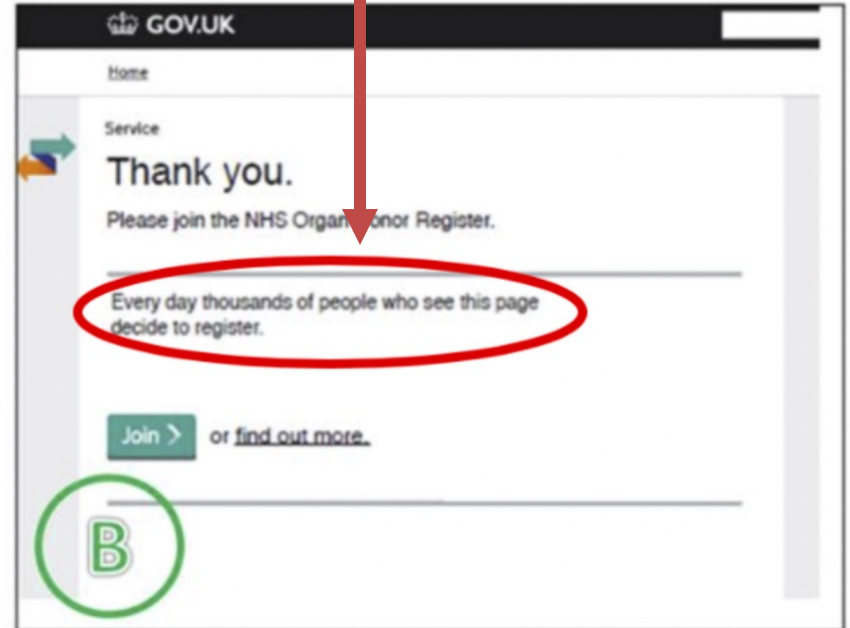
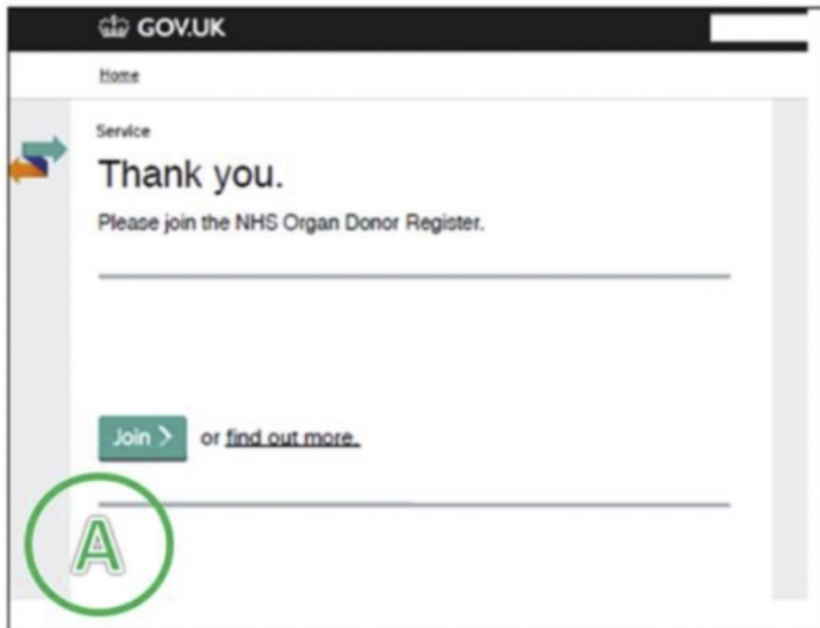
#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Every day Thousands of people who see this page decide to register



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

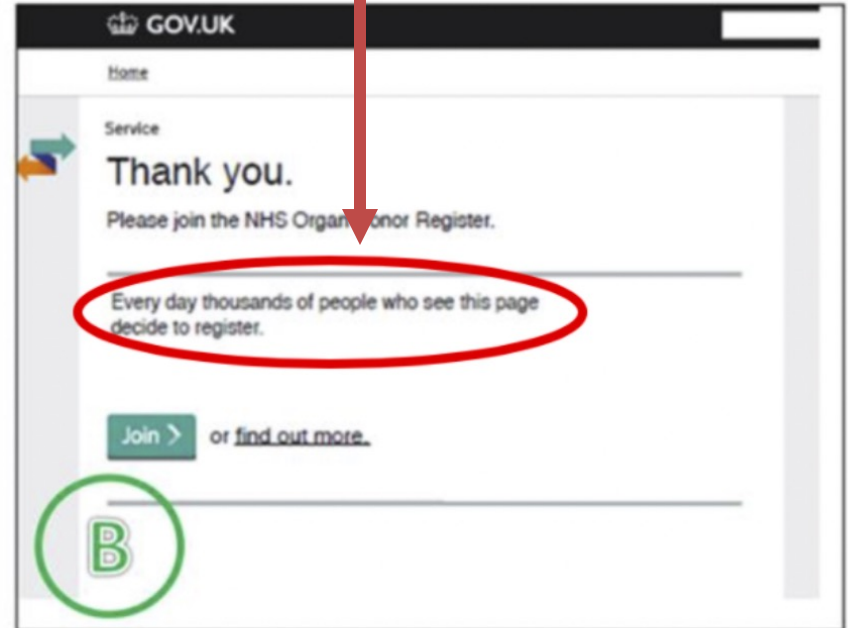
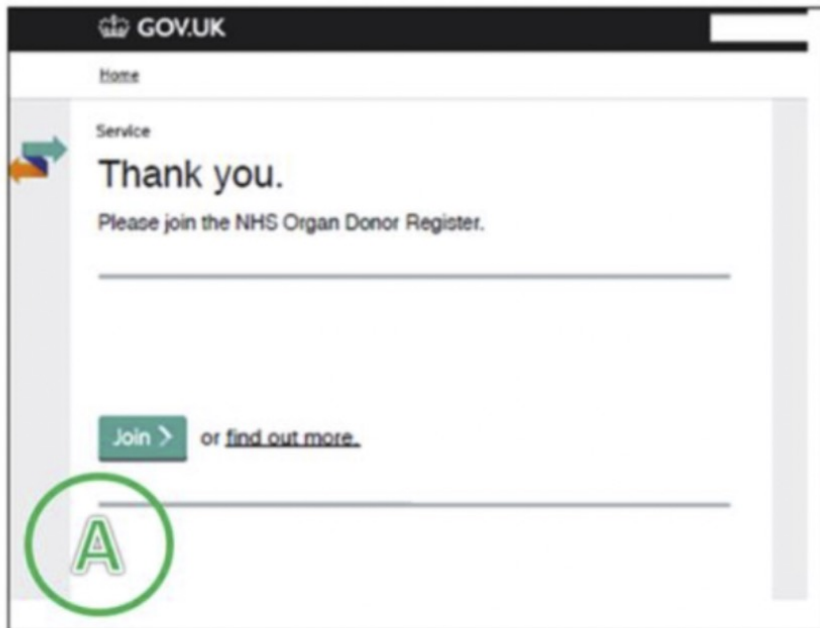
#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Every day Thousands of people who see this page decide to register



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Pianifica ▼

I miei voli ▼

Hotel

Noleggio auto

“ACQUISTA UN VOLO, NE AVRAI UN ALTRO GRATIS”:

Let's look at the 9 brilliant examples of behavioral economics in marketing...

- #1: The power of FREE
- #2: Social proof
- #3: Scarcity
- #4: Loss aversion
- #5: Partial ownership
- #6: Framing
- #7: Dominated alternative/
Third Decoy
- #8: The choice paradox
- #9: Anchoring



PRESS TO HEAR THE MOTOR START



TESLA 0 engines | 0 emissions | 100% electric

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/
Third Decoy

#8: The choice paradox

#9: Anchoring



PRESS TO HEAR THE MOTOR START



TESLA 0 engines | 0 emissions | 100% electric

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

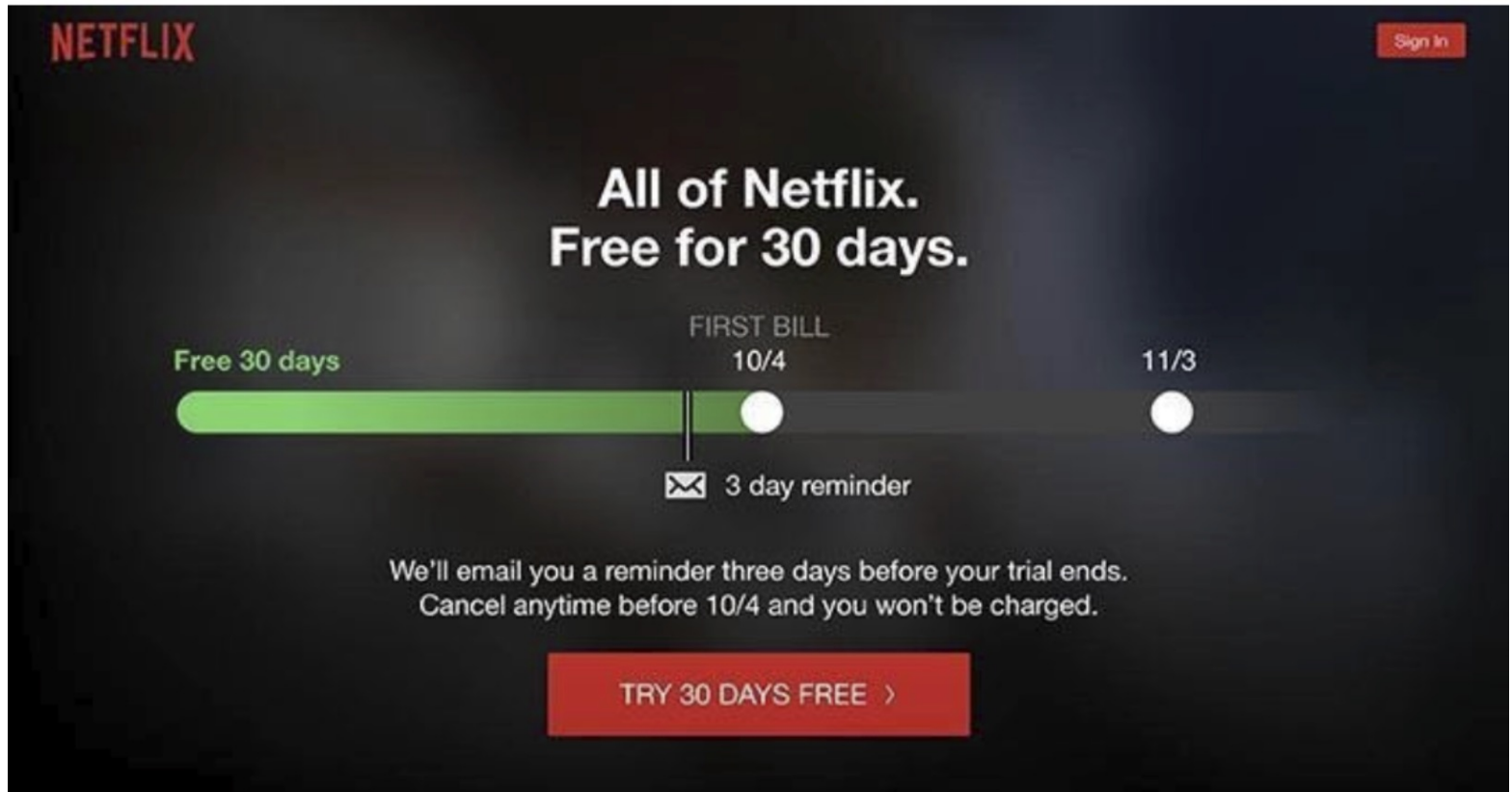
#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

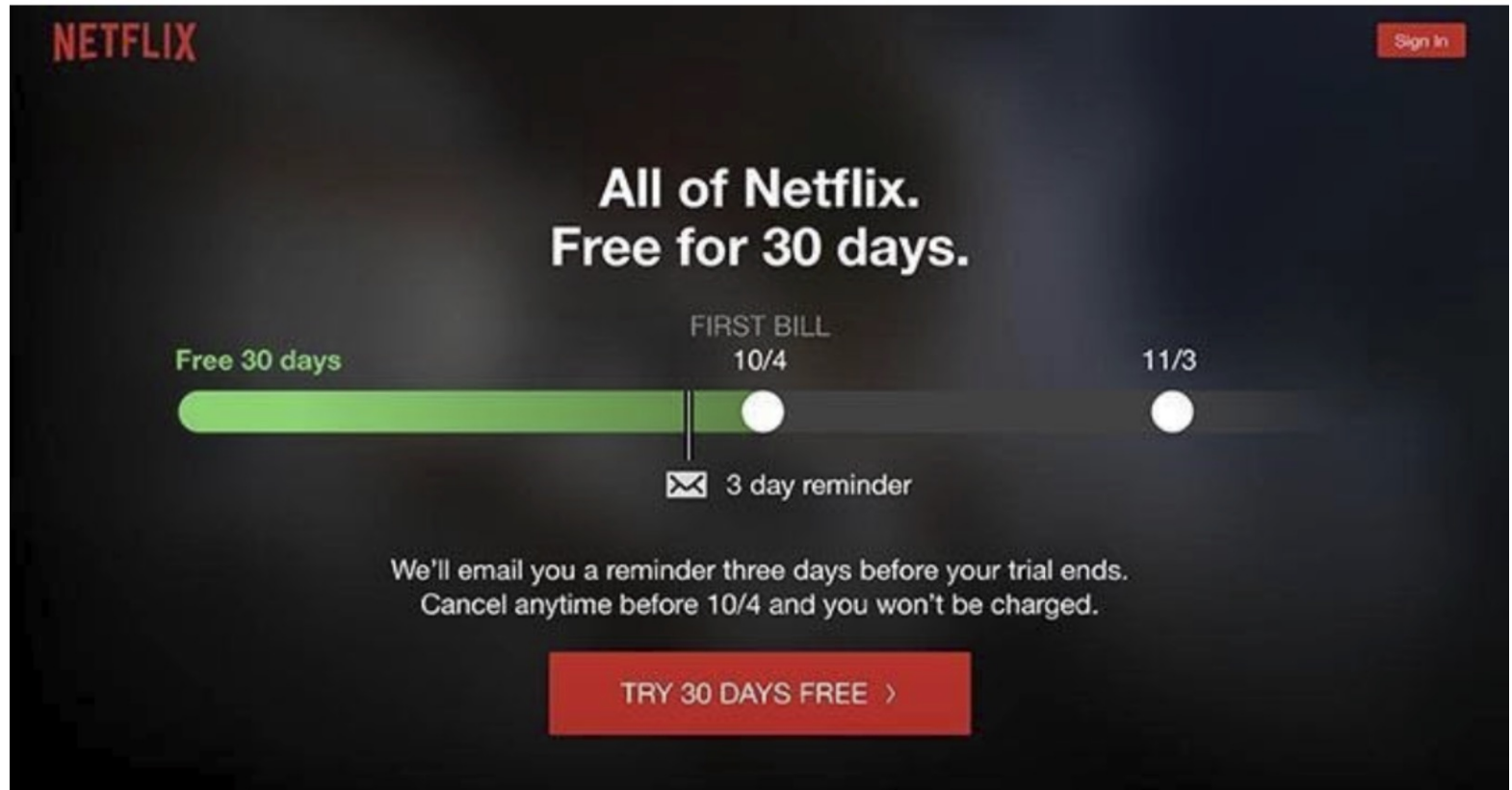
#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Offerte di oggi



Tutte le offerte
Disponibili
In arrivo
Watchlist

Programmi Prime

- ☐ prime
- ☐ Offerte Prime con accesso prioritario
- ☐ Offerte Prime esclusiva

Dipartimenti

[Seleziona tutto](#)



Sconti fino a 170€ In offerta

Scopri i prodotti della settimana Oral-B



Sconti fino a 300€ Termina tra 24:13

Notebook e Desktop Acer

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Offerte di oggi



Tutte le offerte
Disponibili
In arrivo
Watchlist

Programmi Prime

- ☐ prime
- ☐ Offerte Prime con accesso prioritario
- ☐ Offerte Prime esclusiva

Dipartimenti

[Seleziona tutto](#)



Sconti fino a 170€ In offerta

Scopri i prodotti della settimana Oral-B



Sconti fino a 300€ Termina tra 24:13

Notebook e Desktop Acer

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

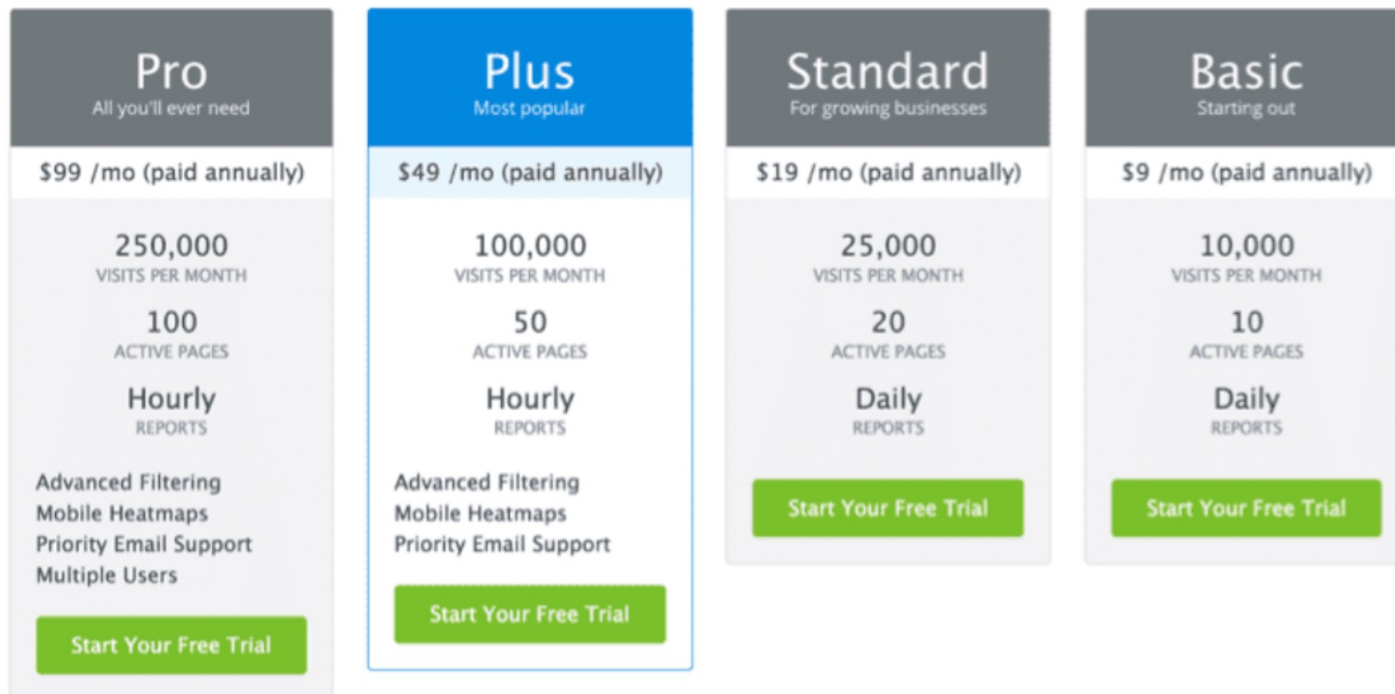
#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

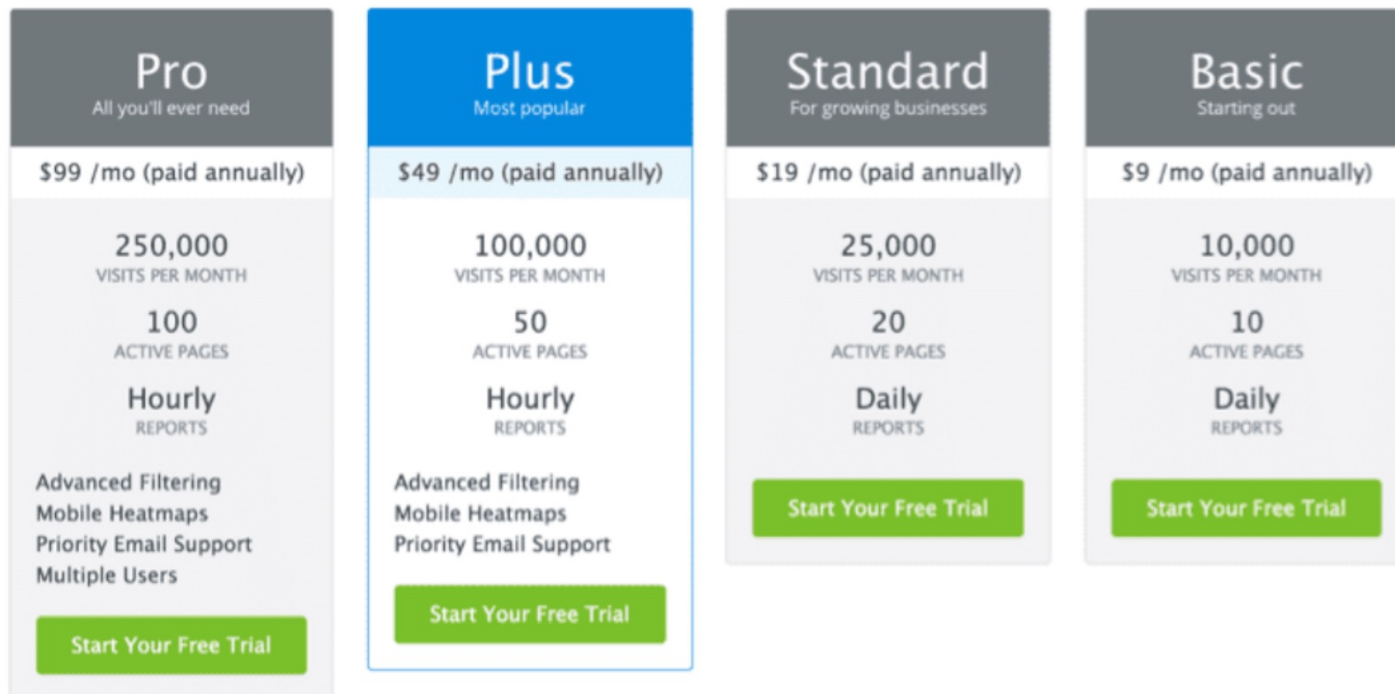
#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

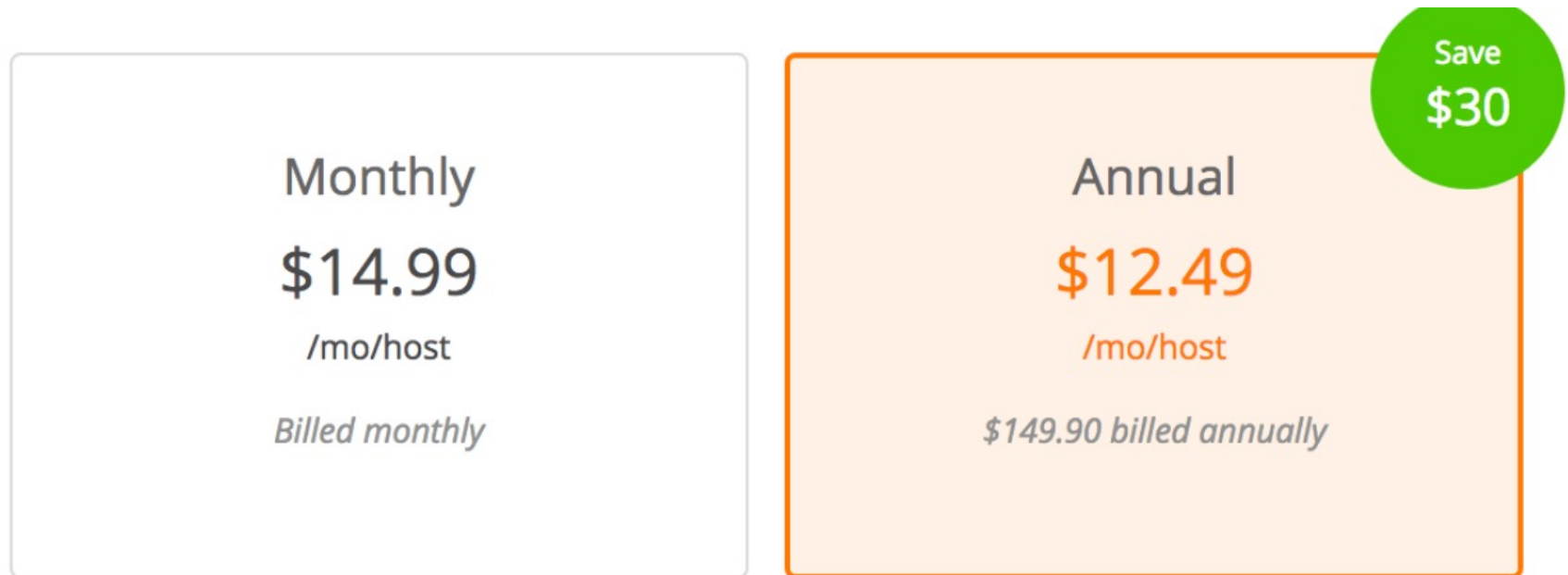
#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring

Monthly

\$14.99

/mo/host

Billed monthly

Annual

\$12.49

/mo/host

\$149.90 billed annually

Save
\$30

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Dropbox

✦ Miglior rapporto qualità-prezzo

👤 Per gli utenti singoli

Plus

9,99 €/mese

2 TB (2000 GB) • 1 utente

Esegui l'upgrade ora →

- ✓ Collegamento di un numero illimitato di dispositivi
- ✓ Cronologia dei file e dell'account di 30 giorni
- ✓ Invio di file di grandi dimensioni (fino a 2 GB) con Dropbox Transfer
- ✓ 3 firme elettroniche gratuite al mese

👤 Per freelance

Professional

16,58 €/mese

3 TB (3000 GB) • 1 utente

Provalo gratis →

[o esegui subito l'upgrade →](#)

Tutti i vantaggi di Plus, più:

- ✓ Controlli di condivisione avanzati e blocco dei file
- ✓ Recupero dei file e dell'account di 180 giorni
- ✓ Invio di file di grandi dimensioni con Dropbox Transfer (fino a 100 GB)

👤 Per team più piccoli

Standard

12 €/utente/mese

Lo spazio di archiviazione è di 5 TB (5000 GB), condiviso tra tutto il team • Più di 3 utenti

Provalo gratis →

[o esegui subito l'upgrade →](#)

- ✓ Protezione dei contenuti e controlli di condivisione esterna semplici da usare
- ✓ Fino a 180 giorni per recuperare i file o ripristinare l'intero account
- ✓ Backup automatico dei computer (e delle unità esterne connesse) direttamente sul cloud

Let's look at the 9 brilliant examples of behavioral economics in marketing...

#1: The power of FREE

#2: Social proof

#3: Scarcity

#4: Loss aversion

#5: Partial ownership

#6: Framing

#7: Dominated alternative/ Third Decoy

#8: The choice paradox

#9: Anchoring



Dropbox

✦ Miglior rapporto qualità-prezzo

👤 Per gli utenti singoli

Plus

9,99 €/mese

2 TB (2000 GB) • 1 utente

Esegui l'upgrade ora →

- ✓ Collegamento di un numero illimitato di dispositivi
- ✓ Cronologia dei file e dell'account di 30 giorni
- ✓ Invio di file di grandi dimensioni (fino a 2 GB) con Dropbox Transfer
- ✓ 3 firme elettroniche gratuite al mese

👤 Per freelance

Professional

16,58 €/mese

3 TB (3000 GB) • 1 utente

Provalo gratis →

[o esegui subito l'upgrade →](#)

Tutti i vantaggi di Plus, più:

- ✓ Controlli di condivisione avanzati e blocco dei file
- ✓ Recupero dei file e dell'account di 180 giorni
- ✓ Invio di file di grandi dimensioni con Dropbox Transfer (fino a 100 GB)

👤 Per team più piccoli

Standard

12 €/utente/mese

Lo spazio di archiviazione è di 5 TB (5000 GB), condiviso tra tutto il team • Più di 3 utenti

Provalo gratis →

[o esegui subito l'upgrade →](#)

- ✓ Protezione dei contenuti e controlli di condivisione esterna semplici da usare
- ✓ Fino a 180 giorni per recuperare i file o ripristinare l'intero account
- ✓ Backup automatico dei computer (e delle unità esterne connesse) direttamente sul cloud

How do Behavioral Economics achieve the goal?

- The **standard economic model** is a natural *starting point* for modeling economic behavior. But is it the end point?

It is about testing the standard economic model: What does it do well and what not so well? How can we improve them?

- It is about applying insights from **experiments**, **psychology** and other social sciences to produce models that better predict what will happen.

What is not behavioral economics

Behavioral Economics does not mean that we start modelling economic behavior from scratch, and scrap the standard economic model.

- Behavioral Economics uses the methodology of **positive economics** advocated by Milton Friedman: the reality of assumptions does not matter, we need 'predictions that are good enough'. Introducing psychological realism only matters if we can produce better models in terms of predictions.

Behavioral Economics has a constructive approach with respect to standard economic models.

However, behavioral economics questions the assumptions on economic behavior in standard economics models:

what is rationality?

The standard economic model

The standard economic model assumes people are

1. Rational – they do not make systematic mistakes.
2. Selfish – they care only about self.

The rational consumer ('homo economicus') maximizes their own utility.

Are we always able to choose the best for ourselves? Do we disregard others' utility? We are not consistent with the standard definition of rationality on many occasions.

Why did economics come up with such a definition of rationality? A bit of history.

Behavioral economics is not new

For a long while economics and psychology went hand in hand.

In the *Theory of Moral Sentiments* Adam Smith recognizes the importance of emotions, social preferences, social norms etc.

Fundamental economic principles like the law of diminishing marginal utility were based on the psychology of sensations (*psychophysics*): as the amount of any stimulus increases, the increment of sensation produced by a given increment of stimulus falls. The law of diminishing marginal utility – that as consumption of any commodity increases, the increment of pleasure produced by a given increment of consumption falls – was seen as a special case of this more general law of psychology.

Homo-economicus is born

However, at the end of the 20th century Vilfredo Pareto separate economics and psychology.

- The focus should be on choice rather than desire, i.e. human seeking pleasure and pain.
- In order to distinguish economics from other disciplines, Pareto focuses on ‘logical actions’.

Pareto recognized the limitations of the rational choice approach. But, this was soon forgotten.

In the 21st Century economics became more and more dominated by models of rational choice.

- Economists convinced themselves a model of rational choice was more than a convenient theoretical starting point.

Behavioral economics is reborn

- In the second half of the 21st century behavioral economics made a comeback.
- Five distinct elements in the comeback can be discerned:
 - Bounded rationality
 - Cognitive bias
 - Market design
 - Equilibrium selection
 - Policies that work.

Bounded rationality

- Herbert Simon questioned the purpose of rational models
 - ‘there is a complete lack of evidence that, in actual human choice situations of complexity, these computations can be, or are in fact, performed’.
- He proposed to model choice taking into account the computational capacities humans possess.
- Despite winning the Nobel Prize for Economics in 1978 Simon’s critique was largely ignored
 - Where is the evidence models of rational choice fail?

Cognitive bias

- Kahneman and Tversky provided overwhelming evidence that the *assumptions* of the standard economic model are flawed.
 - Cognitive bias – people make systematic mistakes
 - Framing matters – choice depends on context
 - Outcomes are judged relative to a reference point
- Daniel Kahneman won the Nobel prize in Economics in 2002.
 - But, where is the evidence models of rational choice fail in terms of prediction?

Markets work revelation

- In a pioneering series of experiments, beginning in the 1950s, Vernon Smith studied markets in the experimental lab.
- He found that markets work! The *predictions* of the standard economic model hold true.
- Vernon Smith won the Nobel Prize in Economics in 2002 alongside Kahneman.

Multiple equilibria

- But what if the standard economic model of rational choice doesn't make a prediction?
- Game theory showed that this possibility is all too common – we get multiple equilibria.
- Which equilibrium 'to choose'?
- Reinhard Selten, Nobel prize winner in 1994, writes
'more and more I came to the conclusion that ... the structure of ... economic behavior cannot be invented in the armchair, it must be explored experimentally'

Policies that work

- In recent years behavioral economics has offered hope to policy makers frustrated by the failures of the standard economic model:
 - Nudge and behavior change
 - Animal spirits and macroeconomics instability
 - Evidence-based interventions in developing countries
 - Solutions to coordination problems and social dilemmas like the tragedy of the commons

Behavioral economics today

- There are many inter-related facets of behavioral economics
 - Study of bounded rationality
 - Simple heuristics and cognitive bias
 - Experimental economics
 - Neuro-economics
 - Behavioral finance
 - Economic psychology

Debate and controversy

- Behavioral economics has many critiques. Some from within the field and some from outside.
- Debate centers on the methods of behavioral economics and how to interpret its results.
- You should take this criticism seriously - much of the hyperbole surrounding behavioral economics is misplaced.
- But, there can be no doubt behavioral economics is delivering important insight.

Debate: Discovered preference hypothesis

- The standard economic model does best when people face a choice often enough to learn from experience.
- But, how good an endorsement of the standard economic model is this? Many important choices – profession, health provider, retirement plan are only made once.
- And, in settings of imperfect information people learn much less from experience.

Debate: Ad-hoc models

- Behavioral economics has thrown up lots of surprising findings. For example, people are more cooperative than many thought they were.
- *Ex post* it is easy to come up with behavioral models that fit the data.
- But, science is about making *novel testable predictions*.
- We need to be beware of ad-hoc modeling.

Debate: Over-fitting

- All behavioral economic models are the standard economic model plus something. For example, plus a warm glow from giving to others.
- Some argue for a more radical departure from the standard economic model.
- Others warn of the danger of over-fitting. If you add something to a model it has to fit better.
- Can the model make novel testable predictions?

Debate: External validity

- Laboratory experiments are highly context dependent abstractions from reality.
- Field experiments are more real but even more context-dependent.
- How reliant should we be on experiments?
- Experiments have to be backed up by good theoretical models.