

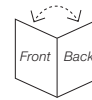
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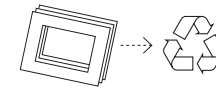
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Step 2:
Glue and fold



Step 3:
Recycle scrap paper

F1 Expectation

Decision Making **Factor 1**

Expectations shape experiences.



- **Surprise & Adaptation** People tend to pay attention to surprises, while predictable events may lose impact over time.
- **Placebo Effect** People may experience things differently depending on prior expectations.
- **Impact Bias** People tend to overestimate the magnitude of their feelings about future events.
- **Anticipation of Rewards**

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Front

F1 Expectation

Decision Making **Factor 1**

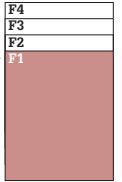
Expectations shape experiences.



strategies

1. Conjure up positive memories of similar experiences.
2. Set up positive expectations.
3. Use surprise to make gains more pleasurable.

Back



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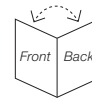
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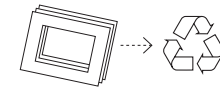
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F1 Surprise & Adaptation



e.g.

When I heard this song on the radio I had to buy the album.
Now it's all I hear and I can't stand a single beat.

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F1 Surprise & Adaptation



People are excited by things that are unexpected and get less satisfaction out of something the more they experience it.



user modes

- Consuming products and services
- Expecting something new
- Doing the same thing for a long time



as a designer you can...

Create fresh and responsive experiences that unfold over time to anticipate people's feeling of disappointment or burnout.

Back

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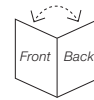
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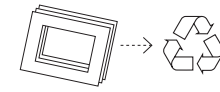
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Glue and fold



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F1 *Placebo Effect*



img: Ann Hintzman

e.g.

Expecting to feel less pain can actually make you feel less pain.

A study asked participants to indicate which of two beers they preferred: a regular beer or a beer with balsamic vinegar added. In a blind taste test, 59% preferred the vinegar version. But when participants were told about the addition of vinegar before the test, only 30% preferred the vinegar version.

(Lee, Frederick and Ariely)

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F1 *Placebo Effect*



definition

People's experiences align with their expectations about what will happen.



user modes

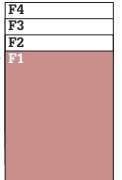
Expecting a certain response from a decision



as a designer you can...

Communicate the value of an offering ahead of time to influence people's expectations and experience.

Back



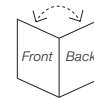
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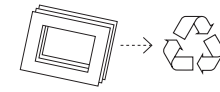
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Step 2:
Glue and fold



Step 3:
Recycle scrap paper

F1

F2

Impact Bias (Affective Forecasting Error)



img: Niko Guido

e.g.

“I’ll love that car forever!”

(Schmidt)

“I’ll use that gym membership everyday!”

(Schmidt)

Vacationers anticipate greater enjoyment during upcoming trips than they actually expressed during their trips.

(Mitchell et al.)

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F1

F2

Impact Bias (Affective Forecasting Error)



People tend to overestimate how long and how intense their future feelings will be.



user modes

- Predicting the repercussions of future decisions
- Projecting their future feelings



as a designer you can...

- Remind people of previous, anti-climactic situations to diminish concerns
- Introduce variability into design to prolong the anticipation of benefits

Back

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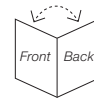
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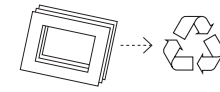
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F1 Anticipation of Rewards



img: Ann Hintzman

e.g.

All Jack could think about was the small toy he won from the cereal box, but when it arrived he had already moved on to the next contest.

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F1 Anticipation of Rewards



definition

People are more excited by the prospect of a reward than the reward itself. This anticipation can contribute to addictive behavior.



user modes

- Fixating on a future event, goal, or purchase
- Looking forward to a reward



as a designer you can...

- Develop incentives and rewards to help motivate people
- Remove a reward, or meaningless incentives, to help people clearly assess situations and make better decisions

Back

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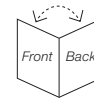
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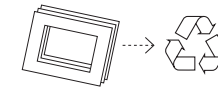
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F2 Time

Decision Making **Factor 2**

The present is more influential
than the past or future.



- **Hyperbolic Discounting** People tend to weigh their immediate needs, experiences and interests far more heavily than future needs.
- **Intertemporal Choice**
- **Impact Bias** People tend to be overly optimistic about their aptitudes, abilities and willingness to do things in the future.
- **Optimism Bias**
- **Planning Fallacy**
- **Attentional Collapse** It's often difficult for people to relate actions and outcomes across long periods of time.
- **Decoupling**

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F2 Time

Decision Making **Factor 2**

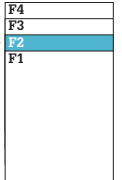
The present is more influential
than the past or future.



strategies

1. Shift the current reference point.
2. Conjure up positive memories of similar experiences.
3. Move present losses into the future.
4. Introduce or increase present gains.
5. Give frequent feedback about the consequences of actions.
6. Provide opportunities for people to pre-commit.

Back



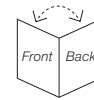
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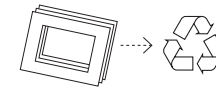
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F2 Hyperbolic Discounting



e.g.

“If you were offered the choice between \$50 now and \$100 a year from now, most would ask for the \$50. However, given the choice between \$50 in nine years or \$100 in ten years you would be likely choose the \$100 in ten years.”

(ChangingMinds.org)

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F2 Hyperbolic Discounting



definition

People tend to value the present over the future. (Exception: If both choices are far enough in the future, people prefer the greater benefit.)



user modes

- Evaluating future outcomes
- Deciding between current and future needs



as a designer you can...

- Provide feedback and indications of incremental progress
- Shift some of the future benefit into the present
- Delay people's experience of giving something up
- Create a present benefit for long-term planning

Back

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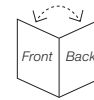
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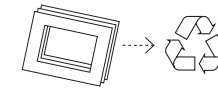
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F2 Intertemporal Choice



e.g.

People making summer plans in the winter may choose overtly warm destinations because they are making decisions based on their attitude towards the current cold temperatures—only to realize later that they really don't want to escape their hot summer weather for another.

(Loewenstein, O'Donoghue, and Rabin)

Shopping in the supermarket while hungry can often lead to purchasing more than what was on your initial shopping list.

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F2 Intertemporal Choice



definition

People lack empathy for their future-self and needs. When making decisions for the future, people tend to focus on how they feel now.



user modes

- Making a decision for the future based on their current situation and feelings
- Trying to predict the future



as a designer you can...

- Create ways for people to understand their future needs
- Help people understand who they will be (or want to be) in the future
- Provide feedback in order to help regulate behavior towards a future goal by providing indications of incremental progress

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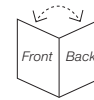
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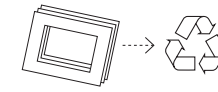
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F1

F2

Impact Bias (Affective Forecasting Error)



img: Niko Guido

e.g.

“I’ll love that car forever!”

(Schmidt)

“I’ll use that gym membership everyday!”

(Schmidt)

Vacationers anticipate greater enjoyment during upcoming trips than they actually expressed during their trips.

(Mitchell et al.)

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F1

F2

Impact Bias (Affective Forecasting Error)



People tend to overestimate how long and how intense their future feelings will be.



user modes

- Predicting the repercussions of future decisions
- Projecting their future feelings



as a designer you can...

- Remind people of previous, anti-climactic situations to diminish concerns
- Introduce variability into design to prolong the anticipation of benefits

Back

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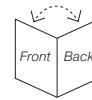
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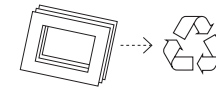
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F2 Optimism Bias

img: Ann Hintzman

e.g.

People are optimistic when it comes to big decisions. 50% of marriages end in divorce, but at the time of the ceremony, almost all couples believe there is zero chance of getting a divorce. This holds true, even if they are on their second marriage.

(Thaler and Sunstein)

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F2 Optimism Bias



People tend to be overly confident about the outcome of planned actions and decisions.



user modes

- Planning to make a decision where future consequences are not fully understood
- Over- and underestimating future consequences



as a designer you can...

Highlight people's degree of control and actual odds of success

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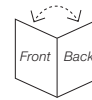
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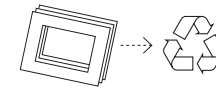
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F2 Planning Fallacy



img: MBPHOTO

e.g.

The contractor told me that the roof would only take four days to fix. Of course this didn't happen as expected and the project dragged on for two and a half weeks.

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F2 Planning Fallacy



People tend to underestimate the time it takes to complete tasks.



user modes

- Planning the outcome of a future decision
- Scheduling tasks, especially when they are unaware of the actual components involved and time that needs to be invested



as a designer you can...

- Allow and encourage people to build extra time into their plans
- Provide a detailed understanding of the tasks and processes that need to be accomplished

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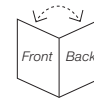
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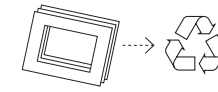
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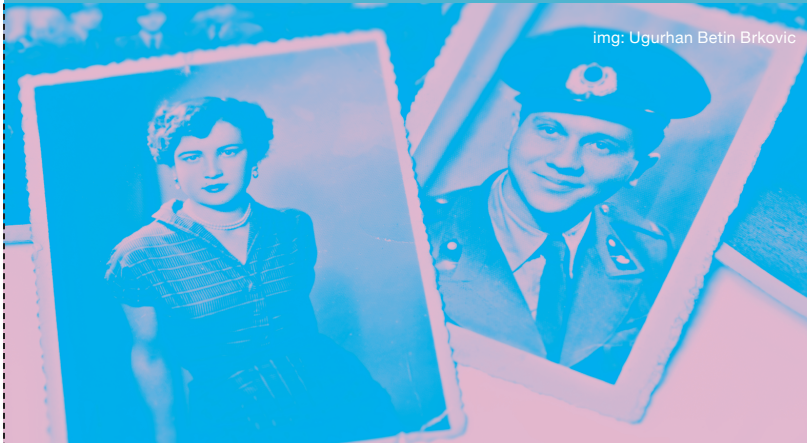


Step 2:
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Step 3:
Recycle scrap paper

F2 Attentional Collapse



e.g.

Consider the choice to marry one sweetheart over another. If a person picks the driven, hard-working banker, will they forever regret letting go of that free-spirited artist? Probably not. When people choose their spouse, and begin their life with that person, the passed-over option quickly fades in their mind.

(Sharples)

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F2 Attentional Collapse



People tend to have trouble accurately recalling the past and estimating the future. As a result, people's perception of what was gained and lost changes over time.



user modes

- Trying to recall a past state or decision
- Trying to forecast future states



as a designer you can...

- Identify where a lack of future knowledge can support desired actions
- Remind people of their past states and opinions
- Shift the reference people use to evaluate their decisions
- Decide whether to provide feedback based on milestones or progress

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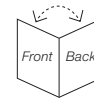
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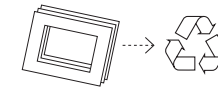
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F2 Decoupling



img: Olga LIS

e.g.

Credit cards make purchases less painful by pushing people's cash outlay into the future.

Annual gym membership fees become less of an incentive to go to the gym over time. Switching an annual membership fee to a monthly cost helps people connect the relationship of their decision (paying for a gym membership) and action (actually going to the gym), and encourages them to go.

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F2 Decoupling



definition

People don't always connect their actions and to its consequences. The larger the delay between an action (decision) and its consequence (outcome), the weaker the link in people's minds.



user modes

- Making a decision where the cost and use are separated
- Evaluating options with multiple component to their costs and/or benefits



as a designer you can...

- Provide frequent feedback for decisions that have long term outcomes to allow people to course-correct
- Provide use and benefit before people experience the associated costs
- Combine smaller losses attached to larger ones to make them less noticeable (giving a \$1 tip for a \$4 cup of coffee, or buying package deals)

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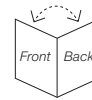
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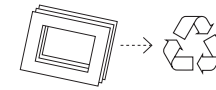
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Step 2:
Glue and fold



Step 3:
Recycle scrap paper

F3 Loss

Decision Making **Factor 3**

Loss is more painful than
gain is enjoyable.



- **Loss Aversion** People tend to respond more strongly to potential losses than potential gains, and often go to great lengths to avoid feeling a loss.
- **Hedonic Framing**
- **Commitment** Abandoning products, routines or beliefs can often feel like a loss, even if the replacement may be something better.

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F3 Loss

Decision Making **Factor 3**

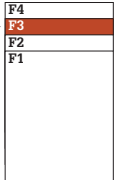
Loss is more painful than
gain is enjoyable.



strategies

1. Reframe losses and gains.
2. Introduce or increase present gains.
3. Associate a loss with the undesirable option or behavior.
4. Move present losses into the future.
5. Lump losses together.
6. Break up large gains into smaller gains.
7. Minimize risk associated with the desired behavior.
8. Give frequent feedback about the consequences of actions.

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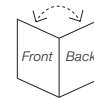
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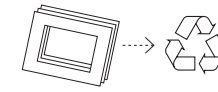
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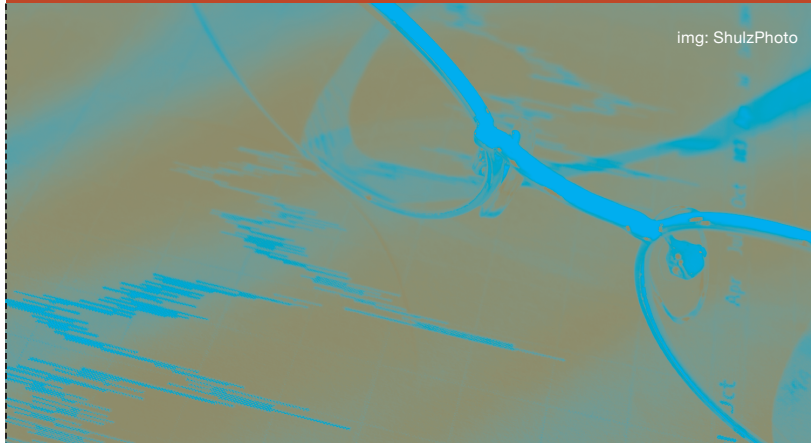


Step 2:
Glue and fold



Step 3:
Recycle scrap paper

F3 Loss Aversion



img: ShulzPhoto

e.g.

People tend to sell stocks that have increased in value, but hold on to depreciating stocks twice as long. Over time, this may lead to a portfolio of shares that are losing money. This is because people are afraid to take a loss, and postponing the sale of a losing stock avoids the tangibility of the loss.

(Lehrer)

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F3 Loss Aversion



definition

People tend to focus on potential loss more than potential gain. A loss is more painful to people than an equivalent gain is rewarding to them.



user modes

Making a decision that may involve a loss or perceived loss



as a designer you can...

- Combine losses (fewer are better) and separate gains (more are better)
- Integrate small losses with larger gains
- Segregate small gains from large losses
- Frame opportunities based on what could be lost
- Associate a loss with the undesirable behavior

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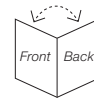
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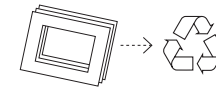
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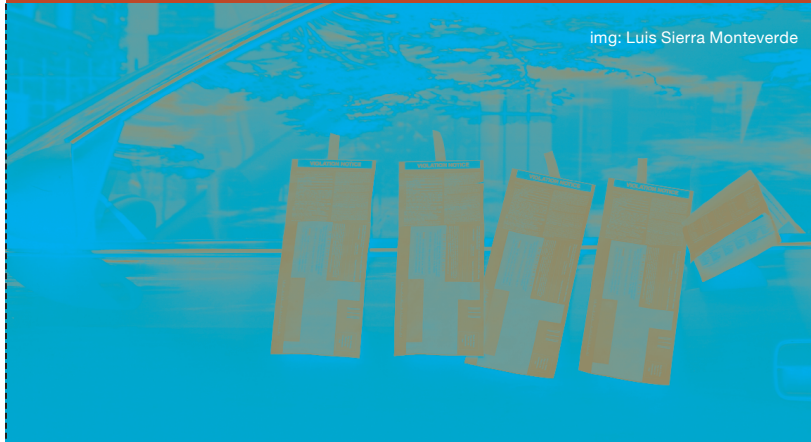


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Step 3:
Recycle scrap paper

F3 Hedonic Framing



e.g.

Ann left her car parked on the street for a week while she was away on vacation. When she returned home, she spotted a parking ticket on the windshield. To make matters worse, Ann realized that there were actually five tickets issued on separate days. Even though the fines added up to the same amount as a speeding ticket she'd received last month, the five separate parking tickets still felt worse.

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F3 Hedonic Framing



definition

People tend to view two gains occurring separately as having more value than one large gain of equal value. However, two losses occurring separately are more painful than one large loss. Small gains/losses attached to larger gains/losses are thus less noticeable.



user modes

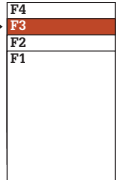
Weighing losses (costs) and gains (benefits)



as a designer you can...

- Segregate gains (so there are more of them)
- Combine losses (fewer are better)
- Integrate small losses into larger gains to reduce the significance of loss
- Pull small gains out from large losses

Back



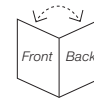
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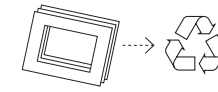
Make your own set of Reference Cards

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Step 2:
Glue and fold



Step 3:
Recycle scrap paper

F3 Commitment



img: Matthew Scherf

e.g.

Jake placed a \$2 bet on a horse at a racetrack while John decided not to place any money down and just cheer for the horse instead. When asked how confident they were that their horse would win, Jake confidently proclaimed that there was no way it could lose while John remained skeptical.

(Knox and Inkster)

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F3 Commitment



definition

People tend to have trouble letting go of something when time and effort have been invested, even if it's taking them down a long dark path.



user modes

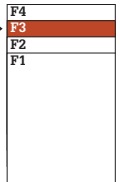
- Comparing their current situation to other options
- Maintaining behaviors and products that are less advantageous than other alternatives



as a designer you can...

- Create options that allow people to take ownership of their decision increasing buy-in and participation
- Communicate the odds and consequences of a decision to allow for a change of mind

Back



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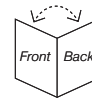
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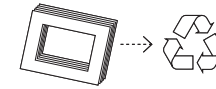
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Step 2:
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Step 3:
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F4 Ownership

Decision Making **Factor 4**

“Me” and “Mine” make things extra valuable.



- **Endowment Effect** People tend to value what belongs to them—ideas, objects, or otherwise—more than others do.
- **Actor-Observer Bias** People often attribute successes to their own actions and virtues, and blame problems on situational factors.

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F4 Ownership

Decision Making **Factor 4**

“Me” and “Mine” make things extra valuable.



strategies

1. Conjure up positive memories of similar experiences.
2. Align the desired outcome with the user's identity.
3. Introduce ownership.

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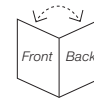
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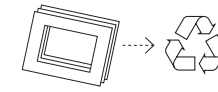
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F4 Endowment Effect



img: Anthony Rosenberg

e.g.

“Look around your house. Pick something. How much would you sell it for? How much would people really pay for it? How much would you pay for something like this at a second-hand store? The contents of your house are more valuable to you than to other people.”
(ChangingMinds.org)

“Last year, a Rasmussen poll found that only 29% of likely voters rated the U.S. healthcare system good or excellent. Yet when Americans were asked the very same question last month, 48% rated it that highly. The American healthcare system didn’t suddenly improve over the past eleven months. People just feel it’s working better because they’re being asked to contemplate changing it.”
(Surowiecki)

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F4 Endowment Effect



definition

People tend to value things they own more than other’s value them—this can include abstract things such as ideas and beliefs.



user modes

- Placing value on objects and thoughts
- Being asked to give up things they have become attached to



as a designer you can...

- Create investment and emotional attachment to products and services so people have a feeling of ownership
- Leverage by making things feel customized and personal
- Distance people from things they currently own before switching them to a new product or service.

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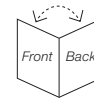
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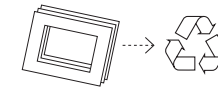
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F4 Actor-Observer Bias



img: killerb10

e.g.

He had a bad team experience because he's very stubborn. But I had a bad team experience because we didn't meet enough.

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F4 Actor-Observer Bias



People often attribute successes to their own actions and virtues, and blame problems on situational factors.



user modes

- Evaluating the actions of others
- Assessing their own outcomes



as a designer you can...

- Design knowing that the same thing will be viewed differently based on whether the user is an actor or an observer
- Put people in others' shoes
- Build buy-in by highlighting contextual contributors to undesired behavior
- Provide feedback which highlights accountability and contributing factors

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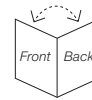
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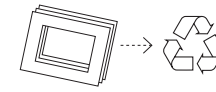
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S1 External Cues

Decision Making **Shortcut 1**

Going with the flow helps
bypass the need to make
a decision

...but might not lead to optimal outcomes.



- **Status Quo Bias** People tend to rely on the default option and accept the consequences of a “non-decision.”
- **Bandwagon Effect** People tend to align their behaviors and decisions with those around them.

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S1 External Cues

Decision Making **Shortcut 1**

Going with the flow helps
bypass the need to make
a decision

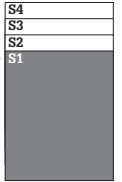
...but might not lead to optimal outcomes.



strategies

1. Associate new behavior with an existing routine.
2. Draw upon or introduce relevant social norms.
3. Make the desired outcome the default option.
4. Provide opportunities for people to pre-commit.

Back



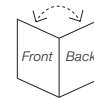
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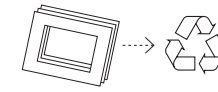
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S1 *Status Quo Bias*



e.g.

In Germany's opt-in organ donation program, only 12% of citizens consented to donate. But in Austria, where they have established an opt-out program, 99% consented.

(Thaler and Sunstein)

Save More Tomorrow is a 401(k) program...where your retirement savings are automatically increased over time, and people have to opt out to not put more money in. Vanguard's implementation of this program saw 401k enrollment rise from 23% prior to Save More Tomorrow, to 78% 12 months after introduction.

(Thaler and Sunstein)

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S1 *Status Quo Bias*



definition

People tend to choose *not* to make decisions. The most frequently selected option will often be the default because people are unwilling to commit to the time and risk associated with choice.



user modes

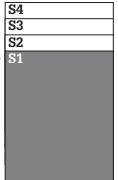
- Facing a choice that has a default option
- Making decisions that are new and/or complicated



as a designer you can...

- Make the desired option the default that people have to opt-out of
- Minimize an overwhelming amount of initial choices by showing a few "preferred options"

Back



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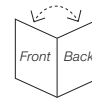
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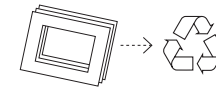
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S1 Bandwagon Effect



img: Yuri_Arcurs

e.g.

“Some guests in a chain hotel saw a sign urging them to ‘help save the environment’ by returning their towels to the rack. Others saw a customized sign that cited their room numbers —saying, for example, ‘75% of the guests who stayed in this room (room 313)’ had reused their towels. Other signs prompted guests to join their fellow ‘citizens’ or ‘men and women’ in helping the environment. By a healthy margin, signs that cited the guests’ room numbers worked best.”
(Mindlin)

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S1 Bandwagon Effect



definition

People tend to do or believe things because many other people do or believe the same.



user modes

- Making decisions that are new and/or complicated
- Wanting to identify with a particular group
- Facing a decision that people around them are also making



as a designer you can...

- Appeal to people’s desire to be a part of a group
- Make people aware of the things other people are doing
- Show “preferred options”
- Develop and highlight groups of people doing the desired behavior

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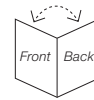
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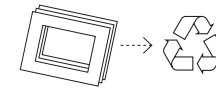
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S2 Compartments

Decision Making *Shortcut 2*

Considering a single set of information helps make decisions less overwhelming

...but might obscure the larger impact of those decisions.



- **Framing** People tend to interpret information from the point of view from which it's presented.
- **Choice Bracketing** People tend to consider information in segmented parts and overlook the larger context in which each part exists.
- **Mental Accounting**
- **Identity** People tend to defer to one set of social or cultural rules at a time.
- **Business v. Social Norms**

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S2 Compartments

Decision Making *Shortcut 2*

Considering a single set of information helps make decisions less overwhelming

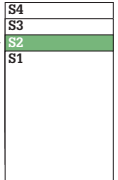
...but might obscure the larger impact of those decisions.



strategies

1. Reveal cumulative effects of a decision.
2. Narrow the scope to help overwhelming decisions feel more manageable.
3. Align the desired outcome with the user's identity.
4. Draw upon or introduce relevant social norms.

Back



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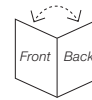
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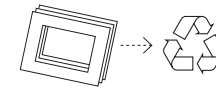
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S2 Framing



img: Akirastock

e.g.

“Consider these two energy campaigns: (1) If you use energy conservation methods, you will save \$350/year; (2) If you do not use energy conservation methods, you will lose \$350/year. Framing in terms of a loss, like in the second information campaign, was far more effective than the first.”

(Thaler and Sunstein)

One person sees a holiday in the hills as an opportunity for outdoor exercise. Her friend sees it as a chance for a quiet read. Her son sees it as a long period of boredom.

(ChangingMinds.org)

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S2 Framing



People tend to draw different conclusions based on how data is presented. Differences include: the information source, context, loss/gain and personal attributes appealed to.



user modes

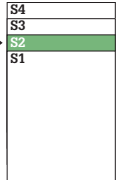
- Evaluating new information
- Comparing options



as a designer you can...

- Describe situations as a loss or a gain (see example on reverse) depending on desired behavior. Things framed as a loss are more salient to people.
- Position offerings in favorable contexts (e.g. the middle price of three offerings)
- Appeal to the personal identity (e.g. mom, commuter) that best aligns with the offering
- Understand that once a frame is accepted, it is hard to change

Back



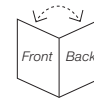
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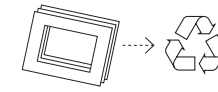
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S2 Choice Bracketing



img: gulfix

e.g.

People buying coffee on a daily basis don't feel that the few dollars a day is a big deal (narrow bracketing), but the hundreds of dollars a year (broad bracketing) is more than they would be willing to pay.

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S2 Choice Bracketing



People tend to draw boundaries around the amount of information they consider when making a decision. Broad bracketing takes into account a wider context with more choices taken together. Narrow bracketing includes fewer or individual choices. People tend to bracket narrowly despite the fact that broad bracketing can often (but not always) lead to more desirable decisions.



user modes

Breaking a decision down into manageable pieces



as a designer you can...

- Develop ways for people to see the cumulative effect of their decisions
- Break large sums into smaller increments

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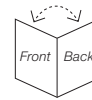
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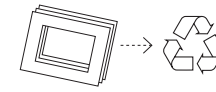
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S2 Mental Accounting



e.g.

When you're salaried, the money comes as lump sums that aren't affiliated with specific purchases—you just pay for rent, food, etc. But when you're paid hourly, it's much easier to equate a job with a specific item: "If I take this gig I can buy that new sofa."

(Schmidt)

Many people tend to categorize tax refunds as found money—and spend it accordingly—even though a refund is actually nothing more than a deferred payment of salary.

(Belsky and Gilovich)

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S2 Mental Accounting



People tend to think about the world in terms of specific accounts, where value isn't interchangeable.



user modes

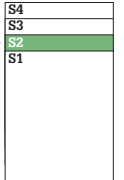
Evaluating different types of choices (time vs. money, vacation vs saving)



as a designer you can...

- Examine ways in which non-financial values (time, identity, convenience, etc.) are exchanged
- Research how people assign value to their "accounts" to determine ways of designing offerings
- Identify which values are not interchangeable, like using money to buy free time by paying someone to do something
- Provide people with information of their patterns and habits across "accounts" to break barriers between them.

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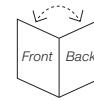
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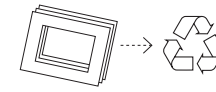
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S2 Identity



e.g.

Rob is a 35 year old father of three, and wants to buy a new car. At the dealership, he gets excited by a classic two-seater that the “bad boy rebel” in him decides must buy...until his wife reminds him of his family responsibilities and the need to fit two adults, two children, and a baby car seat into the minivan they ultimately go home with.

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S2 Identity



Although people view themselves (their feelings, mind sets, thoughts, behaviors, values, and priorities) as internally consistent for the most part, they have several transitional identities throughout the course of the day. Context and the way things are positioned relative to those identities can radically affect how people behave.



user modes

- Negotiating disparate identities
- Concerned about how a decision reflects their identities



as a designer you can...

- Establish ways to trigger a user's relevant identity
- Appeal to the user's identity that best aligns with the behavior you want them to choose

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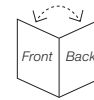
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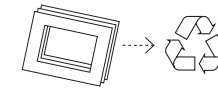
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S2 Business v. Social Norms



img:nyul

e.g.

In an effort to change behavior, a day care center started penalizing parents who picked up their children late with a small fine. However, this fine resulted in an increase rather than a decrease of late pick-ups.

It turned out that charging a fine inadvertently shifted parents from operating under social rules to market rules. When paying a fine, parents no longer felt guilt and instead felt like they were paying for a service.

(Gneezy and Rustichini)

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S2 Business v. Social Norms



definition

Money changes the way people evaluate their choices and view their behavior. It can shift people into a business mind set and violate social norms.



user modes

- Considering monetary penalties and incentives
- Engaging in social contracts or relationships



as a designer you can...

- Make monetary incentives large or escalating
- Use gifts as incentives rather than cash
- Design offerings that adhere to either social or business norms
- Draw upon or introduce relevant social norms

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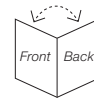
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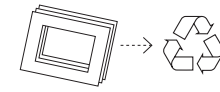
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S3 Mental Models

Decision Making **Shortcut 3**

Aligning new information
with established beliefs and
habits helps maintain a sense
of stability

...but might make it hard to adapt to new situations.



- **Information Avoidance**
- **Resolving Cognitive Dissonance**
- **Diagnosis Bias**

People tend to ignore or rationalize conflicting information rather than alter their beliefs or habits.

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S3 Mental Models

Decision Making **Shortcut 3**

Aligning new information
with established beliefs and
habits helps maintain a sense
of stability

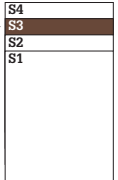
...but might make it hard to adapt to new situations.



strategies

1. Associate new behavior with an existing routine.
2. Draw upon or introduce relevant social norms.
3. Align the desired outcome with the user's identity.
4. Set up positive expectations.

Back



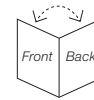
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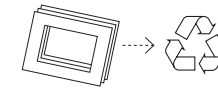
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S3 Information Avoidance



img: kati1313

e.g.

Vivid details are compelling, but if too strong can lead to a kind of “la la la la la I can’t hear you” response and an assumption that one can avoid bad outcomes by ignoring them.

(Schmidt)

Even after Phil and Susan got engaged, Claire insisted that she and Phil would get back together.

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S3 Information Avoidance



definition

People tend to avoid information when faced with extreme cases of vivid stories and images. They also tend to assume that one can avoid bad outcomes by ignoring them.



user modes

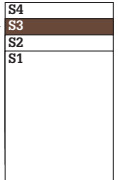
- Receiving lots of or vivid information
- Getting bad news



as a designer you can...

- Distill information into key points
- Phase communication
- Combine vivid stories and factual information
- Develop methods to gauge user understanding of possible outcomes

Back



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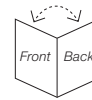
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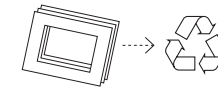
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S3

Resolving Cognitive Dissonance (Decision Regret)



e.g.

Sam wants to live a long and healthy life and even though it is widely accepted that cigarettes cause lung cancer, he still smokes. He rationalizes his behavior by telling himself that only a few smokers become ill, respiratory problems only happen to very heavy smokers, and that if smoking does not kill them, something else will.

(Aronson, Wilson, and Akert)

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S3

Resolving Cognitive Dissonance (Decision Regret)



definition

People feel a need to resolve cognitive dissonance (state of holding multiple contradictory states or beliefs). This leads to rationalizing or discounting evidence that doesn't support choices they have made.



user modes

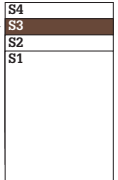
- Evaluating choices that are contrary to current decisions
- Struggling with conflicting identities
- Resolving conflict that has resulted from a decision (rationalizing)



as a designer you can...

- Modify perception of the known (path taken) v. unknowns (available alternatives)
- Provide for comparative options, like pro-con charts
- Connect decisions to other important reinforcing identity characteristics
- Avoid providing too many options
- Make certain options irreversible

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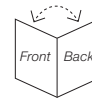
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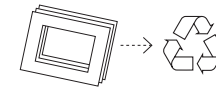
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S3

S4

Diagnosis Bias



img: PeskyMonkey

e.g.

Job interview candidates are judged based on their initial impression, and it's difficult to overcome that initial assessment later on.

(Aronson, Wilson, and Akert)

S3

S4

Diagnosis Bias



definition

People tend to label other people and objects based on initial assessments, and often have an inability to reconsider those judgments later on. They can be swayed by irrelevant factors (e.g., physical appearance) early on, and then later ignore objective information in conflict with that initial assessment.



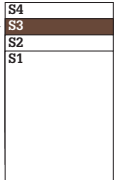
user modes

Making generalizations and passing judgement



as a designer you can...

Highlight the relevant information you want people to pay attention to



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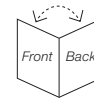
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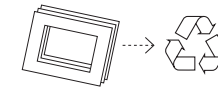
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S4 Quick Indicators

Decision Making **Shortcut 4**

Relying on simple and available information helps make decisions more straightforward

...but might oversimplify the problem.



- **Ambiguity Effect** People tend to ignore ambiguous information and value certainty.
- **Segregation Effect**
- **Certainty Bias**
- **Availability** People tend to relate information to examples at hand.
- **Anchoring**
- **Representativeness** People tend to think that things with similarities are more alike than they actually are.
- **Diagnosis Bias**
- **Clustering Illusion**

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S4 Quick Indicators

Decision Making **Shortcut 4**

Relying on simple and available information helps make decisions more straightforward

...but might oversimplify the problem.



strategies

1. Conjure up positive memories of similar experiences.
2. Highlight colorful and personal stories.
3. Avoid overwhelming amounts of information.
4. Use facts to lend credibility and memorability.

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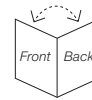
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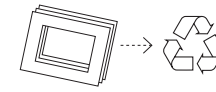
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S4 Ambiguity Effect



e.g.

Since the local singers are good, Sally knows that there is, at best, a moderate chance that she will win the local singing competition. There is another competition she could enter but since she has no idea of the caliber of singers entering, she decides to enter the local competition.

(ChangingMinds.org)

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S4 Ambiguity Effect



People tend to avoid options where they feel they are unable to understand the risks because of missing information.



user modes

Making decisions with incomplete information



as a designer you can...

- Eliminate the ambiguity by presenting clear options and probabilities to people
- Help people understand the complexity of the decisions presented along with the chances of desired outcomes
- Bring missing pieces of information to people's attention

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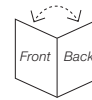
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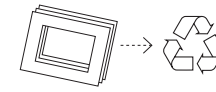
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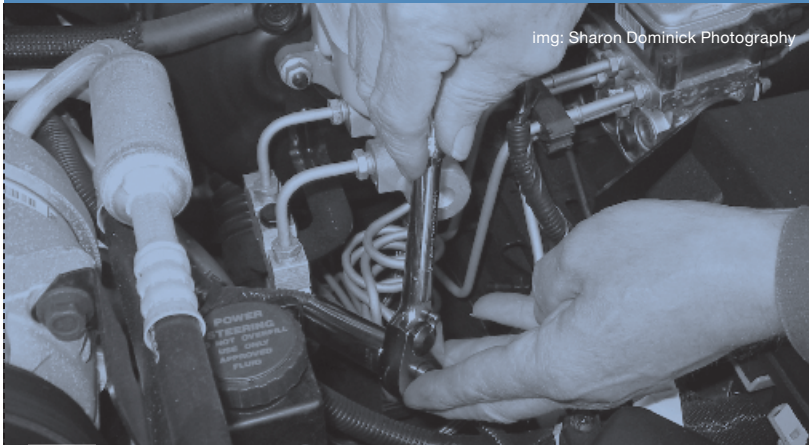


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S4 Segregation



img: Sharon Dominick Photography

e.g.

While buying a new car, Alec made his purchasing decision solely on the cash back offering and financing incentives. After a few months he took his car to the mechanic and realized that he neglected to investigate the maintenance costs that come with owning an imported car.

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S4 Segregation



People tend to focus on things that seem most relevant. Additional details may be left out or discarded.



user modes

Evaluating options with many features



as a designer you can...

Highlight the relevant information you want people to pay attention to

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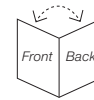
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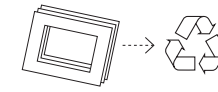
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S4 Certainty Bias

img: blackred



e.g.

People will pay more to decrease a risk from 5% to 0% than they will to decrease a risk from 50% to 45%. The certainty of entirely removing the risk (0%) is seen as being more valuable.

“Most people would pay more to remove the only bullet in the gun during a game of Russian Roulette than they would to remove one bullet when there were four in the gun.”

(ChangingMinds.org)

People purchase warranties because not having to worry is worth more than the money spent.

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S4 Certainty Bias



People tend to value reducing risk to zero more than other comparable reductions (e.g. a risk reduction from 5% to 0% is more valuable than 20% to 15%)



user modes

Looking for or expecting a sure thing (striving for 100%)



as a designer you can...

Create situations that guarantee outcomes, e.g., warranties, service plans, etc.

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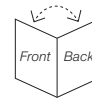
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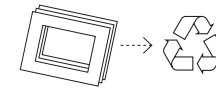
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S4 Availability



e.g.

Although the probability of experiencing an earthquake may not change ... in the aftermath of an earthquake, purchases of new earthquake insurance policies rise sharply, but purchases decline steadily from that point as vivid memories recede.

(Thaler and Sunstein)

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S4 Availability



People tend to rely on easy-to-access examples when making decisions. These examples are most often recent, vivid, and personal stories rather than generic, cumulative, and non-anecdotal information.



user modes

Evaluating options and likelihood of events



as a designer you can...

- Identify and use visceral stories that resonate with the user group (but be aware that overusing this can cause people to ignore information)
- Provide alternate compelling context
- Provide context and factual information to counter salient stories

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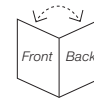
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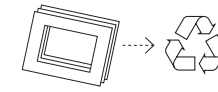
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S4 Anchoring



e.g.

“If a negotiation starts with one party suggesting a price or condition, then the other party is likely to base their counter-offer relative to this given anchor.”

(ChangingMinds.org)

Given three options, people tend to choose the middle one: it seems like a good deal compared to the high end option. Very few select the lowest priced option.

(Ariely)

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S4 Anchoring



People tend to use a familiar or previously introduced piece of information as a reference point, and make subsequent decisions relative to that anchor. Sometimes even a meaningless anchor can have a strong influence on a person.



user modes

Making a decision based on reference point



as a designer you can...

- Establish high and low extremes to artificially create anchors
- Identify current anchors and adjust context to downplay existing ones
- Use established anchors set by others to even playing field

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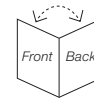
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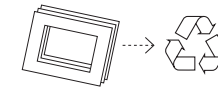
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S4 Representativeness



img: raclo

e.g.

“Oh, you’re from Massachusetts? My cousin is from Massachusetts too. You’d probably get along...”
(Schmidt)

“If you meet someone with a laid back attitude and long hair, you might assume they are Californian, whereas someone who is very polite but rigid may be assumed to be English.”
(ChangingMinds.org)

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S4 Representativeness



People tend to assume that things with some similarities are more similar than they really are.



user modes

- Creating groups for things
- Trying to make sense of an unknown based on what is currently known



as a designer you can...

- Combat by adequately differentiating options
- Leverage by calling attention to the similarities of other successful services, programs, products, etc.

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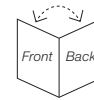
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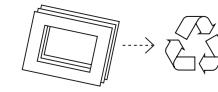
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S3

S4

Diagnosis Bias



img: PeskyMonkey

e.g.

Job interview candidates are judged based on their initial impression, and it's difficult to overcome that initial assessment later on.

(Aronson, Wilson, and Akert)

S3

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Diagnosis Bias



People tend to label other people and objects based on initial assessments, and often have an inability to reconsider those judgments later on. They can be swayed by irrelevant factors (e.g., physical appearance) early on, and then later ignore objective information in conflict with that initial assessment.



user modes

Making generalizations and passing judgement



as a designer you can...

Highlight the relevant information you want people to pay attention to

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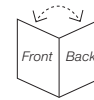
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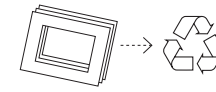
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S4 Clustering Illusion



img: Jerad Lavey

e.g.

Even though the famous college basketball coach Bobby Knight scoffed at the idea, one widely reported study claimed to debunk the “hot hand” of basketball—the idea that players shoot successfully in “streaks”—as being indistinguishable from chance.

(Gilovich, Vallone, and Tversky)

Is ‘OXXXOXXXOXXXOXXXOXXXO’ random? Or can you see patterns? Many could, yet it is almost perfectly random.

(Gilovich)

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S4 Clustering Illusion

Tendency to see patterns where actually none exist.



user modes

- Working with probabilities and the unknown
- Trying to make sense of an unknown based on what is currently known



as a designer you can...

- Try to eliminate any misleading or irrelevant patterns, or take advantage of patterns that can help promote desired behavior
- Be aware of your own susceptibility to see patterns that do not actually exist in your research and design processes

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