# JEDI Lab

Judgement, Emotion, Decision & Intuition

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Judgment, Emotion, Decision and Intuition Lab – JEDI Lab. Since we “founded” our multidisciplinary research group in 2012–2013 we have become one of the leading research labs on judgement and decision making in the world. We have published more than 100 articles in peer-review journals, including some of the most influential scientific journals (e.g., Nature, PNAS). We have attracted 76.8 million SEK in external funding. Three of our Padawans (i.e., Ph.D. students) have successfully defended their dissertations. We have become an integrated part of teaching at both the Division of Economics and the Division of Psychology. But most importantly, we have prevailed as a multidisciplinary research group and created a caring and open environment.

During 2018 we had several exciting highlights. To name a few, Arvid Erlandsson received the young researcher award from the Swedish National Committee for Psychological Sciences at the Royal Swedish Academy of Sciences. Kinga Barrafrem received the prestigious Wallander scholarship. We received a VR grant for exploring replicability and reducibility of heuristics and biases in judgement and decision making. Erkin Asutay also received a VR grant for his research project on affect integration and how emotion influences behaviour. William Hagman successfully defended his dissertation on attitude formation towards nudging. As illustrated by this yearbook we also published some really interesting papers. Hopefully 2019 will be as good as or better than 2018.

Being a large research group (19 people!) poses different challenges than being the small guerilla research group that we once were. Long gone are the days of “Bush fixes” and “stick it to the man” mentality. Today long-lasting solutions and endless meetings with grown-ups are vital parts of what we do and a necessary ingredient for our continued success. Going forward we need to make sure that we keep working across disciplines in a daring and caring fashion. Research is teamwork and JEDI Lab is a team.

Gustav Tinghog  Daniel Västfjäll
Lab directors

Talk to the nation
The overarching aim of everything we do at JEDI Lab is to understand everyday decision-making and its underlying processes, both at the individual level and at societal level. Put in other words, we are curious about what makes humans – humans. Why do people sometimes disappoint and sometimes astonish with great achievements? Our projects are stimulated by economic theory, which provides an ideal standard, as beautiful conceptually as it is flawed empirically.

As indicated by our name, we study how emotions shape the way we make decisions and how intuition and reflection interplay when making judgments. Areas of translational focus include (A) healthcare, (B) finance, (C) charitable giving, and (D) political behavior. A central theme for research in all of these contexts is how people weigh (and sometimes ignore) different types of information when making decisions. For example, people often overweight emotional considerations such as risk of adverse events and unlikely catastrophic consequences, and underweight information about probability, frequency, and consequences that are psychologically more distant and less emotional in content – leading to scope neglect in decision making.

It is our firm belief that if we are to better understand human decision making, we need to incorporate insights and methods from different academic disciplines. Therefore, JEDI Lab is a multidisciplinary research group that seeks to combine knowledge from a wide range of fields, such as economics, psychology, philosophy, political science, cognitive science, and neuroscience. We use both lab and field experiments to explore the forces that shape people’s decisions. To study the root of human decision making we sometimes also move inside the human body, focusing on the neural and biological underpinnings of certain behaviors. Sometimes we even contemplate about the normative aspects of decision making – what is good and bad decision making? We haven’t fully figured that out yet though.

In the end, our ambition is always to contribute to better decision making and to provide policymakers with knowledge that can translate into better policy solutions.
### Highlights 2018

Apart from our weekly lab meetings and our bi-weekly Jedi Academy, the following noteworthy events took place in 2018:

**March 9**
- Halftime seminar Lina Koppel with visit from Andreas Olsson, director of Emotion Lab at Karolinska Institute

**March 20**
- Erkin Asutay received a grant from the Swedish Research Council
- April 10–11
  - Emir Efendic visited from Eindhoven University of Technology and gave a seminar, a.k.a. Sith Academy
- July 5
  - Beslutsbotanikerna podcast launched!

**August 24**
- JEDI kick-off with go-kart

**September 21**
- Mario Kienzler successfully defended his Ph.D. thesis

**September 10**
- Organized a plenary session on behavioral health economics at the international conference on priority setting in health care

**September**
- Paul Slovic visited from Decision Research, Eugene, Oregon

**October 18**
- Symposium and prize award ceremony for Arvid Erlandsson at the Royal Swedish Academy of Sciences

**October 25-26**
- Filmed a series of information videos about nudging

**November 5**
- Gustav Tinghög received a grant from the Swedish Research Council

**December 5**
- Kinga Barrafrem received the Wallander scholarship

**December 6**
- Beslutsbotanikerna released their 12th podcast episode

**December 14**
- William Hagman successfully defended his Ph.D. thesis

**December 31**
- Published a debate article on motivated reasoning in Dagens Nyheter
Our podcast, **Beslutsbotanikerna** (literal translation: *The Decision Botanists*), launched in July 2018. In it, Gustav Tinghög and Daniel Västfjäll discuss the science of decision making. Each episode centers around one of the models of decision making, starting with Homo Economicus.

https://soundcloud.com/beslutsbotanikerna

**Episode list:**
1. Homo Economicus
2. Homo Heuristicus
3. Homo Ignorans
4. Homo Moralis
5. Homo Socialis
**Bonus episode:** Vem ska jag tro på (on the replication crisis)
6. Homo Emoticus
7. Homo Empaticus (with special guest Paul Slovic)
8. Homo Pecunia
9. Homo Nutu
**Bonus episode:** Homo Nutu 2 (with Ph.D. student William Hagman)
10. Homo Tangere/Dolore (with special guest India Morrison)
11. Homo Hippocrates
JEDI masters
(Lab directors)
Gustav Tinghög
Title: Associate Professor
Current affiliations: NEK, Prio-C, CSAN
Degree: Ph.D. in Economics (LiU, 2011)
Nationality: Swedish
Academic nickname: Trolley-Tinghög
Academic slogan: There is no traffic on the extra mile
Greatest academic achievement of 2018: Remained sane and received a VR grant
Greatest personal achievement of 2018: Created a volleyboll tv-show
Daniel Västfjäll
Title: Professor
Current affiliations: IBL & IEI, LiU; Decision Research, Eugene, OR
Degree: Ph.D. in Psychology (Göteborg University, 2002), Ph.D. in Acoustics (Chalmers University of Technology, 2003)
Nationality: Swedish
Academic nickname: Emo-Daniel
Academic slogan: Do or do not, there is no try
Greatest academic achievement of 2018: Started a science podcast and actually recorded episodes
Greatest personal achievement of 2018: Personal? Do or do not, there is no personal
JEDI knights
(Postdoctoral researchers)
Arvid Erlandsson
Title: Assistant Professor
Current affiliations: IBL
Degree: Ph.D. in Psychology (Lund University, 2015)
Nationality: Swedish (Växjö, Småland)
Academic nickname: Charitable giving-Arvid
Academic slogan: Work hard – Drink hard – Act soft
Greatest academic achievement of 2018: Receiving the Swedish National Committee for Psychological Sciences’ annual award to the young outstanding researcher in psychology.
Greatest personal achievement of 2018: Getting engaged to my girlfriend.
Erkin Asutay
Title: Assistant Professor
Current affiliations: IBL
Degree: Ph.D. in Acoustics (Chalmers University of Technology, 2015)
Nationality: Turkish
Academic nickname: AffectErkin
Academic slogan: No worries we’ll fix that
Greatest academic achievement of 2018: Got a major project grant from the Swedish Research Council
Greatest personal achievement of 2018: Got rejected by Psychological Science yet another time

“No worries we’ll fix that”
Kenny Skagerlund
Title: Postdoctoral researcher
Current affiliations: IBL & CSAN, LiU; Brain Connectivity and Cognition Lab, University of Miami
Degree: Ph.D. in Cognitive Psychology (LiU, 2016)
Nationality: Swedish
Academic nickname: Dyskalkyli-Kenny
Academic slogan: WOKE
Greatest academic achievement of 2018: Published, not perished
Greatest personal achievement of 2018: Resisted the temptation to increase the absolutely vital morning dosage of coffee from three cups to four cups. Health is important.
Emil Persson
Title: Postdoctoral researcher
Current affiliations: NEK
Degree: Ph.D. in Economics (University of Gothenburg, 2016)
Nationality: Swedish
Academic nickname: Powerslave
Academic slogan: Hope for the best, plan for the worst.
Greatest academic achievement of 2018: Finally published the very first experiment I ran (some 5+ years ago)
Greatest personal achievement of 2018: Working less but producing more

Hope for the best, plan for the worst
David Andersson
Title: Principal Research Engineer
Current affiliations: NEK
Degree: Ph.D. in Economics (LiU, 2016)
Nationality: Swedish
Academic nickname: Stat-David
Academic slogan: Forget mediocre research.
Greatest academic achievement of 2018: I taught my first course.
Greatest personal achievement of 2018: I colored within the lines.
Kinga Barrafrem (Posadzy)
Title: Postdoctoral researcher (inofficially also General of Social Activities)
Current affiliations: NEK
Degree: Ph.D. in Economics (LiU, 2017)
Nationality: Polish
Academic nickname: Riskinga
Academic slogan: Think like a proton—always positive
Greatest academic achievement of 2018: Received the Wallanderstipendium
Greatest personal achievement of 2018: Got married 😍 (also started a DnD campaign)
There’s always more to learn

Mario Kienzler
Title: Postdoctoral researcher
Current affiliations: INDEK
Degree: Ph.D. in Marketing (LIU, 2018)
Nationality: German
Academic nickname: Organizational-Mario
Academic slogan: There’s always more to learn
Greatest academic achievement of 2018: Defending my dissertation
Greatest personal achievement of 2018: Skiing in Åre for the first time
Alex Genevsky
Title: Assistant Professor
Current affiliations: Rotterdam School of Management, Erasmus University; NEK, LiU
Degree: Ph.D. in Psychology (Stanford University, 2016)
Nationality: USA
Academic nickname: Neuro-Alex
Academic slogan: Just living the dream
Greatest academic achievement of 2018: Gave a session on Neurofinance atop a mountain in Switzerland
Greatest personal achievement of 2018: Birth of our second daughter, Hannah!

"Just living the dream"
Padawans
(Doctoral students)
William Hagman
Title: Ph.D. student in Psychology
Current affiliations: IBL.
Degree: M.Sc. in Cognitive Science (LiU, 2013)
Nationality: Swedish
Academic nickname: Nudge-William
Academic slogan: I’m only here for science and beer
Greatest academic achievement of 2018: Getting my Ph.D.
Greatest personal achievement of 2018: Over 100 downloads of my thesis (probably by really important scientists)
Thérése Lind
Title: Ph.D. student in Economics
Current affiliations: NEK
Degree: M.Sc. in International Business and Economics (LiU, 2013)
Nationality: Swedish European
Academic nickname: Motivated-reasoning-Therese
Academic slogan: For research and beyond
Greatest academic achievement of 2018: Published my first first-authored paper
Greatest personal achievement of 2018: Acquired a nemesis
Camilla Strömbäck
Title: Ph.D. student in Economics
Current affiliations: NEK
Degree: M.Sc. in International Business and Economics (LiU, 2013)
Nationality: Swedish
Academic nickname: Self-control-Camilla
Academic slogan: Try again, fail again, fail better
Greatest academic achievement of 2018: Returned after parental leave
Greatest personal achievement of 2018: Scored 2 goals during this year’s soccer season
Lina Koppel
Title: Ph.D. student in Medical Science; Lab manager
Current affiliations: CSAN, NEK
Degree: M.Sc. in Psychology (Lund University, 2015)
Nationality: Swedish
Academic nickname: Pain-Lina; Replication-Lina
Academic slogan: Just do it
Greatest academic achievement of 2018: Completed my halftime seminar
Greatest personal achievement of 2018: Bought an apartment and became neighbors with Gustav Tinghog (also reached level 2 in DnD)
Kajsa Hansson
Title: Ph.D. student in Economics
Current affiliations: NEK
Degree: M.Sc. in Economics (LiU, 2016)
Nationality: Norrland (Swedish)
Academic nickname: Democracy-Kajsa
Academic slogan: Fuck up less
Greatest academic achievement of 2018: Learned to do a headstand (in the office)
Greatest personal achievement of 2018: Learned to do a headstand (at home)
Per Andersson
Title: Ph.D. student in Psychology
Current affiliations: IBL & NEK, LiU; Stockholm University
Degree: M.Sc. in Psychology (Stockholm University, 2014)
Nationality: Swedish
Academic nickname: Peer-punishment-Per
Academic slogan: I have not failed, I have just found 10,000 things that do not work
Greatest academic achievement of 2018: Started the 2nd international collaboration on cultural differences in peer punisher approval using my animations
Greatest personal achievement of 2018: Beating David at Magic, like once
Mikael Skagenholt
Title: Ph.D. student in Psychology
Current affiliations: IBL
Degree: M.Sc. (research) in Brain and Cognitive Sciences (University of Amsterdam, 2017)
Nationality: Swedish
Academic nickname: Frenologi-Mikael
Academic slogan: Only reviewers deal in absolutes
Greatest academic achievement of 2018: Publishing my first academic paper
Greatest personal achievement of 2018: Surviving

"Only reviewers deal in absolutes."
Hajdi Moche
Title: Ph.D. student in Psychology
Current affiliations: IBL
Degree: M.Sc. in Psychology (licensed clinical psychologist; LiU, 2016)
Nationality: Swedish/Syriac
Academic nickname: Prosocial bias-Hajdi
Academic slogan: Det är ORIMLIGT (a la Kishti Tomita i Idol-juryn 2004)
Greatest academic achievement of 2018: Started Ph.D./Almost killing Paul Slovic while sand surfing in Oregon (thank God I didn’t!)
Greatest personal achievement of 2018: Got a visa to the US/Moved back to Finspång, my hometown

Judgement, Emotion, Decision & Intuition
Publications 2018
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Abstracts
This study investigated the relation between pro-social behavior and bullshit-sensitivity. Bullshit-sensitivity is the ability to distinguish bullshit from non-bullshit. Typical bullshit-sentences are seemingly deep and meaningful but upon reflection they are just random “deep” words put together in a grammatically correct way (e.g. “Your movement transforms universal observations”). On the contrary, “The person who never made a mistake never tried something new” is an example of a non-bullshit genuinely profound sentence. Over one thousand participants from a representative Swedish sample rated how meaningful they thought seven bullshit-sentences and seven non-bullshit sentences were. They also stated if they had given money to any charity over the last year, and whether they would like to “volunteer for charity” by prolonging the survey in order to raise money for a charity of their choice. The results showed that people who are good at distinguishing bullshit from non-bullshit donate more often to charity and agree to volunteer for charity more often. This relation remains even when controlling for sex, age, education, religiosity, cognitive abilities, political orientation and time spent completing the survey. Despite being only correlational, this study went seriously viral for a week during the summer.

Bullshit-sensitivity predicts prosocial behavior
Arvid Erlandsson, Artur Nilsson, Gustav Tinghög, & Daniel Västfjäll
Published in PloS ONE.
Over the last few years, the social sciences have faced a so-called replication crisis, arising from the finding that many scientific studies are difficult or impossible to replicate. Inability to reproduce scientific findings has potentially severe consequences for many scientific theories, and beliefs in non-reproducible effects can have a long-lasting life. As a response to the replication crisis, efforts have been made to improve scientific practices and to replicate classic studies on which scientific theories are built. JEDI Lab has played an active role in this movement. In particular, JEDI Lab has taken part in a number of Registered Replication Reports (RRRs), in which independent laboratories across the world conduct direct replications of an original study using the same predetermined protocol. The goal of the RRRs is to estimate the size of previously published and well-known effects. Some of the defining features of the RRRs are that they follow a submission and review process that differs from the traditional and that results are published regardless of the outcome. Authors first submit a detailed description of the method and analysis plan, which is then sent to the author(s) of the original study for review. Once the replication plan is accepted, it is advertised publicly, and other laboratories can apply to participate. All applications are vetted by the editors to make sure they conform to the approved protocol. In the final report, results are presented for each lab separately as well as jointly in a meta-analysis. All materials and data are made publicly available so that other researchers can access them for further inspection and analysis.

Three RRRs were published in 2018. In all cases, effects were very small, sometimes indicating no difference between groups and sometimes indicating a small difference in the opposite direction of the originally observed effect.
Do differences in world-view ideology hinder people from objectively interpreting the effect of immigration? In an experiment we investigate if people displayed motivated (biased) reasoning when interpreting numerical information about the effects of refugee intake on crime rate. We were also interested in how numeric ability would influence the assessments of a politically sensitive issue. Previous literature had shown contradicting results in this regard. Some studies had shown that people with high numeric ability were better at making the (numeric) information fit their already existing beliefs, thus increasing the probability of engaging in motivated reasoning. Yet, other studies had shown that people with low numeric ability were more likely to engage in motivated reasoning because they were not able to decipher the information. We found that when refugee intake was associated with higher crime rate, nationally oriented people were more likely to make the correct assessment, compared to globally oriented people. Likewise, when refugee intake was associated with lower crime rate, nationally oriented people were less likely to make the correct assessment, compared to globally oriented people. Thus, we find clear evidence of motivated reasoning depending on world-view ideology. However, we find only weak evidence that numeracy influenced motivated reasoning. If anything, we found that people with low numeric ability were more likely to engage in motivated reasoning.
In this study we were interested in comparing people’s reactions and actual helping behavior when reading negative or positive charity appeals. Negative appeals emphasize the terrible consequences that could follow in case people do not help a certain cause (e.g., “Baby Minhaj starved to death – don’t let it happen again”). Positive appeals emphasize the wonderful consequences that could happen when people do help a certain cause (e.g., “Baby Minhaj survived and is now ready for school thanks to private donations – let’s do the same for other children”). Over four experiments we found that positive appeals make people like the advertisement as well as the charitable organization more than the negative appeal. In separate studies, we also find that people expect that positive appeals will be more effective for recruiting donors than negative appeals. Importantly, this does not show when we ask people for actual donations. In two of the four studies there are no difference in donation amount, and in the other two the negative appeal actually received more donations than the positive appeal! The take home message is that attitudes and donation behavior do not necessarily go hand in hand.
Whether doctors at the bedside level should be engaged in health-care rationing is a controversial topic that has spurred much debate. From an empirical point of view, a key issue is whether there exists a behavioral difference between rationing at the bedside and policy level. Psychological theory suggests that we should indeed expect such a difference, but existing empirical evidence is inconclusive. We conducted a behavioral experiment where participants (n=573) made rationing decisions in hypothetical scenarios, to explore whether rationing decisions taken at the bedside level are different from rationing decisions taken at the policy level. We found a discrepancy between health-care rationing at policy and bedside level for scenarios involving life-saving decisions, where subjects rationed treatments to a greater extent at the policy level compared to bedside level. Follow-up questions showed that bedside rationing was more emotionally burdensome, indicating that psychological factors likely play a key role in explaining the observed behavioral differences. Our findings contribute to the policy debate about fair and efficient rationing by establishing empirical facts about the discrepancy between rationing decisions taken at the bedside and policy level, which also explains why it is easier to ration care as a politician than as a doctor.
Being financially literate is an important life skill that is equally important for one's own sake as well as for society. Findings indicate that individuals are financially illiterate while interventions to increase the level of financial literacy are ineffective. The effect of financial literacy on financial behavior reported in correlation studies may be driven by some unknown third variable, such as individual cognitive ability. The current study investigated the role of cognitive and emotional factors in attaining financial literacy. In a representative sample of the general population, our regression models indicate that a central component of financial literacy can be traced to numeracy and the emotional attitude towards numbers (i.e. mathematics anxiety). Thus, a driving force behind becoming financially literate resides in the ability to understand numbers and having an emotional attitude towards numbers that does not interfere with an individual's daily engagement in activities involving mathematics and financial decisions.
In this study we investigated the relation between donating to charitable organizations and behaving prosocially towards street-beggars. Over one thousand Swedish people from a representative sample completed an online survey. We found that people who are donating money to organizations primarily focusing on helping people in other countries (e.g. The Red Cross or UNICEF) are more positive toward beggars than those who are not. We also found that people who are donating money to organizations perceived as helping people in Sweden (e.g. the Cancer Fund or the Heart-Lung foundation) are equally or even less positive to beggars than those who are not. The take home message is that knowing which type of organization(s) a person donates to tells us more about her beliefs and worldviews, than knowing merely whether and how much she donates. A practical implication is that while some outgroup-oriented charity organizations probably would benefit from actively criticizing nationalistic parties such as the Swedish Democrats, other ingroup-oriented charity organizations would probably lose revenue by doing so.
What are the underlying neurocognitive mechanisms that give rise to mathematical competence? This study investigated the relationship between tests of mathematical ability completed outside of the scanner and resting-state functional connectivity (FC) of cytoarchitectonically defined subdivisions of the parietal cortex in adults. These parietal areas are also involved in executive functions (EF). Therefore, it remains unclear whether there are unique networks for mathematical processing. We investigate the neural networks for mathematical cognition and three measures of EF using resting state fMRI data collected from fifty-one healthy adults. Using 10 regions-of-interest (ROIs) in seed to whole-brain voxel-wise analyses, the results showed that arithmetical ability was correlated with FC between right anterior intraparietal sulcus (hIP1) and left supramarginal gyrus (SMG), and between right posterior intraparietal sulcus (hIP3) and left middle frontal gyrus (MFG) and right premotor cortex (PMC). The connection between the posterior portion of the left angular gyrus (AG) and left inferior frontal gyrus (IFG) was also correlated with mathematical ability. Covariates of EF eliminated connectivity patterns with nodes in IFG, AG, and MFG, suggesting neural overlap. Controlling for EF, we found unique connections correlated with mathematical ability between the right hIP1 and left SMG, and between hIP3 bilaterally to PMC bilaterally. This is partly in line with the mapping hypothesis of numerical cognition in which the right IPS subserves non-symbolic number processing and connects to left parietal cortex, responsible for calculation procedures. We show that FC within this circuitry is a significant predictor of math ability in adulthood.
In this study we merged research about "the trend effect" with research about help-allocations. Over a total of seven experiments, participants read short pieces of information about multiple types of cancer. For each cancer type, participants learned the mortality statistic at two previous points of time but we manipulated the number at the first point so that the two points together created either a downward or an upward trajectory (e.g., half of the participants read that the expert-estimated mean death risk for patients diagnosed with Hodgkin's Lymphoma was 37% in 2012 and 22% in 2014 (downward trajectory) whereas the other half read that it was 7% in 2012 and 22% in 2014 (upward trajectory). The results showed that participants 1) believed that the existing trajectory would continue in the future, 2) believed that cancer-types with an upward trajectory were more severe, and 3) allocated more money to cancer-types with an upward trajectory. In one study, we even found that participants allocated more money to a small but worsening problem than to a much larger but improving problem. Practical implications of this is that organizations should avoid appeals framed like “Things are improving but we still need your support”.

The rise and fall of scary numbers: The effect of perceived trends on future estimates, severity ratings, and help-allocations in a cancer context
Arvid Erlandsson, Sigrid Møyner Hohle, Erik Løhre, & Daniel Västfjäll
Published in *Journal of Applied Social Psychology*
Rationing decisions based on health maximization are likely to conflict with the view of the general public. We argue that health economics at large has been oblivious to the core aspects of human nature and this has limited the use of health economics as a productive input in health policy. We present a psychological account for why the outcomes of health economic evaluations are unlikely to be compatible with public views and discuss implications for health policy. This psychological account emphasizes the occurrence of taboo-tradeoffs and compassion fade, two emotional phenomena that are especially likely to bias judgments about health care priority setting. Health economics as a tool for priority setting is also very much blind for the needs of the individual since it has an impersonal focus which gives little or no concern for individual needs. Given the disconnect for how people think and make decisions about the individual versus how people think and make decisions about aggregated groups this further helps to explain why people hate health economics.
The Triple Code Model of numerical cognition (i.e. the capacities allowing us to perceive and manipulate numerical quantities) argues for the existence of three numerical representational formats: Arabic digits (3), number words (three), and nonsymbolic magnitude representations (**). These representational formats have been argued to employ separate neural structures for the processing of numerical information. Despite the popularity of the model, no study had yet examined all three numerical codes within one experimental paradigm. In order to bridge an important gap in the literature on numerical cognition, we designed a study that featured numerical discrimination tasks relevant to all three numerical codes. Our results significantly overlapped with recently proposed updates to the Triple Code Model, and also identified neural substrates common to all three codes. Among these, a subset of neural substrates have previously been argued to be functionally biased toward demanding arithmetic operations; an interpretation questioned by the current results. The availability of these data provide a foundation for increasingly specific delineation of the neural substrates associated with numerical cognition. By extension, these results also highlight the basic neural correlates of more sophisticated number processing skills, as employed in— for instance—financial decision-making.
Anger is a strong emotion that can influence behavior and shape economic outcomes. For example, anger can be used as a threat in bargaining situations and it can facilitate enforcement of norms (via punishment) in situations that require cooperation, such as teamwork or the maintenance of common natural resources in local society. The previous literature has taught us a great deal about why people become angry and what they do when they are angry; but less is known about the consequences of anger for strategic interaction, that is, when outcomes depend not only on my actions but also on my beliefs about other individuals’ actions, their intentions, and their beliefs. A recent paper by Battigalli, Dufwenberg, and Smith (2017) develops a formal theoretical framework where frustration and anger affect behavior and shape outcomes in strategic settings. My paper presents the first experiment designed to test predictions based on versions of their theory that involve no or low responsibility of the punished person. I find that frustration but not punishment occur as predicted. This finding supports versions of their theory that stress the importance of appraisal for blame and aggression, but not the version where frustrated individuals punish indiscriminately.
Previous research has shown that affect plays an important role in decision-making under risk, where affective responses can work as emotional cues that are utilized as a decision-making heuristic. In this paper, we investigate the relationship between risky choice and affect in fast and slow decision-making. We manipulate response times in order to invoke intuitive, affective decision-making, and we use skin conductance to measure subjects' autonomic arousal at the point of decision-making. Our results show a strong correlation between subjects' skin conductance responses and their risky choices under time pressure but not under time delay. In line with descriptive theories of risky choice, the effect was most pronounced for choices involving losses rather than gains. Our findings provide support for behavioral models that recognize the role of emotional brain systems in decision-making under risk. In addition, previous research has shown that integral, salient, affective cues can receive greater weight under reduced processing capabilities. Our results extend this by showing that reliance on integral affective responses may increase under time pressure – even when the choice task is relatively affect-poor, which suggests that time pressure may not always lead to bad decisions.
We investigate how democracy affects the creation of institutions that solve, or at least alleviate, social dilemmas, which are situations where it is socially optimal for members of society to cooperate, but it is individually rational for selfish individuals to freeride. A canonical example is environmental resource depletion. Societies can combat these problems via the formation of institutions, for example by introducing limits on pollution or overfishing. The effectiveness of different institutions have been tested in lab experiments, where researchers recreate the tension between self and society to test-bed different interventions. Intriguingly, previous research found that democratically created institutions outperformed identical institutions that were exogenously imposed. We focus on a policy that introduces a minimum level for public good provision, to test the democracy hypothesis in a relevant context that has not been previously investigated. Surprisingly, democracy made no discernible difference for the effectiveness of the intervention that we tested. Our results therefore highlight that the effect of democratic institutional choice crucially depends on the nature of the policy under consideration, and that the legitimizing effects of democracy per se should not be taken for granted in the presence of other motives for cooperation that seem to be stronger.
Dissertations
Enabling customer value creation is central to marketing theory and practice. Yet, doing so does not ensure that supplier firms profit from it. Value-based pricing and selling come with the prospect of translating customer value creation into greater profits for suppliers. However, despite sustained interest, only a limited number of firms emphasize value-based pricing and selling. Existing research has highlighted organizational challenges as potential reasons. Unfortunately, this focus on organizational challenges obscures the role of individuals within organizations (i.e., its micro-foundations), such as the fact that managers and salespeople determine and realize prices. The purpose of this thesis is thus to describe and analyze the micro-foundations of value-based pricing and selling in business markets.

The thesis’ conceptual framework introduces bounded rationality and heterogeneity—two overlooked forces—to investigate the affective, cognitive, and motivational micro-foundations of value-based pricing and selling. The thesis’ empirical foundation consists of five papers that investigate the micro-foundations suggested by the framework.

The findings indicate that research would benefit from a wider variety of research approaches. Currently, insights into micro-foundations are lacking, in part due to the focus on research designs and theories aimed at the organizational level; experimental designs and theories from psychology would allow amendments to prior research. Furthermore, individual rationality and individual differences play a role. In this regard, managers’ cognitive biases impact upon the extent to which firms focus on value-based pricing. Moreover, price presentation impacts managers’ value perception and purchase intention. The findings also suggest that managers’ personalities and salespeople’s experience and learning orientation are important individual differences affecting the emphasis on value-based pricing and selling. Consequently, affective, cognitive and motivational micro-foundations—arising due to bounded rationality and heterogeneity—explain some of the challenges associated with value-based pricing and selling.

This thesis contributes with insights into several micro-foundations affecting value-based pricing and selling. In so doing, the thesis belongs to a growing stream of research that is shifting the focus from organizational processes to the individual foundations of value-based pricing and selling. The thesis also provides suggestions on how managers can use micro-foundations to the advantage of their firms.
Interventions aimed to change behavior (so-called nudges) are becoming more and more popular among policymakers. However, in order to be able to effectively use nudges, it is important to understand when and why people find them acceptable. The objective of this thesis is to improve the understanding of when nudges are judged to be acceptable. The thesis focuses on a model for behavioral change that contains two parts, nudge technique and acceptance of nudges. Nudge technique refers to how the nudge is designed to function in regard to psychological mechanism and functionality.

The empirical part of the thesis is based on four papers which all use a quantitative online survey approach to study the judgements of nudges from the general public. Paper 1 was a first attempt to measure whether a number of common nudges are acceptable interventions according to the general public. We found that the nudges that were categorized as pro-self were more likely to be rated as acceptable and less likely to be perceived as intrusive to freedom of choice compared to pro-social nudges. In paper 2, we explored whether this difference between pro-self and pro-social nudges could be increased by framing nudges as beneficial for society or individuals. The framing had no effect on acceptance but, as in paper 1, pro-social nudges were rated as more intrusive to freedom of choice compared to pro-self nudges. In paper 3, we examined whether the alternative to nudges affects the perceived acceptability and intrusiveness of default-changing nudge techniques. The alternatives given to the nudges were either to enforce the intended behavioral change with legislation or to do nothing at all in order to change the behavior. We find no difference in aggregated acceptance; however, the judgements vary depending on individuals' worldview. Paper 4 explored if the choice architect's (the creator/proposer of the nudge) political affiliation affects acceptance rating for proposed nudge interventions and legislation. We find that acceptance of both nudges and legislation increases with the level of matching between people's political orientation and the choice architect's political affiliation.

Taken together, the findings suggest that there is more to creating an acceptable nudge than to merely take a nudge technique that was acceptable in one context and apply it in another. Nudges that are rated as more beneficial towards individuals compared to society at large are in general more likely to be found acceptable and less intrusive to freedom of choice. It is important to have knowledge about the target population (e.g., their decision styles, world-views, and political orientation) to avoid backfires when implementing nudges.
List of failures
Awards and scholarships we did not get:
• Bästa gruppteam vid LiU

Grants we did not receive:
• Skandia forskningsfond
• Riksbankens jubileumsfond
• Swedish Research Council (2)
• Russell Sage Foundation
• Stiftelsen Lantbruksforskning
• European Research Council

Papers rejected by the following journals:
• Emotion
• Cognition and Emotion
• Social Psychology
• Journal of Consumer Affairs
• Proceedings of the National Academy of Sciences (2)
• Nature Human Behavior
• Medical Decision Making
• Scientific Reports
• Organizational Behavior and Human Decision Processes
• Journal of Public Economics
• Judgment and Decision Making
• Journal of Economic Psychology (2)
• Psychological Science (2)
• Journal of Experimental Psychology: General
• Journal of Marketing Research
• Journal of Economic Behavior and Organization
• European Journal of Social Psychology
• Social Psychological and Personality Science

Conferences where we got rejected:
• Experimental Finance 2018 in Heidelberg, Germany