

Online studies

on optimism about COVID-19 and

on bilingual decision-making

Talk in lab meeting of the “Biological Psychology and Cognitive Neuroscience” group led by Hauke Heekeren at Freie Universität Berlin

27.04.2020

Christoph W. Korn

Online studies

- Why?
- Which designs?
- Which platforms?
- How to recruit participants?
- How to pay them?
- How to analyze & report?

Why? Pros & cons

Pros

- Instant data collection
- Large sample sizes (& few trials)
- Diverse samples (ages, occupation, countries, etc.)
- Often relatively cheap
- Can often be shared easily (e.g., link to preregistration)
- Can be combined with lab studies
- Well-established

Cons

- Limited to certain kinds of studies
- Limited control of participants & environments
- Limited data types (e.g., no looking patterns, etc.)
- Questions about data storage
- Weird or experienced samples

Which designs?

- Online surveys – You can actually do quite a lot with a survey:
 - Questionnaires
 - Consent forms
 - Learning tasks
 - Decision-making tasks
 - Emotion regulation tasks
 - Etc.
- Randomization important
- “Proper programming” (e.g., particularly helpful for pilot studies)
 - OpenSesame (PsychoPy)
 - Pavlovia (PsychPy)
- Longitudinal designs
- Between-participants & within-participants designs

Which platforms?

➤ General way of doing it

1. Get participants
2. Link them to platform where they take part
3. Refer back to pay them

➤ Platforms

- SoSciSurvey
- LimeSurvey
- Qualtrics
- Unipark
- SurveyMonkey
- Etc.

➤ Points to consider when choosing a platform

- Flexibility of platform (e.g., answer options, pictures, PHP syntax, randomization, etc.)
- Data storage
- Data formats
- Costs

How to recruit & pay participants?

- Panels, e.g., SoSciSurvey panel
- Mailing lists
- Social media
- Mturk
- Prolific (recommended)
 - Takes about 5 minutes to set up a study
 - Mainly UK and USA, but also lots of participants in other countries (mainly Europe though)
 - For UK and USA, you can choose nationally representative samples (for age, sex, ethnicity)
 - If you want to sign up, let us know and we'll give you a promo code

How to analyse & report?

- Drop-outs are common
- Computers & smartphones
- Review your design
- Checks for participants' attention
- Make sure you get what you need (e.g., age, location, language, etc.)
- Export data in an appropriate format
- Use your favorite analysis tools

Optimistic beliefs about the personal impact of COVID-19

- People need to change behavior to slow the spread of COVID-19
- People's beliefs about their own risks might affect to what extent they stick to best practices
- Comparative optimism for COVID-19 & other health related issues
- Relation to different types of social contacts

Sharot*, **Korn***, Dolan *Nat Neurosci* 2011

Korn et al. *J Neurosci* 2012

Oganian, Heekeren, **Korn** *Q J Exp Psychol* 2018

Optimistic beliefs about the personal impact of COVID-19

- 1st data acquisition on 16.03.2020 in Germany, UK, & USA

Preprint:

Kuper-Smith, Doppelhofer, Oganian, Rosenblau, Korn *Psyarxiv* 2020

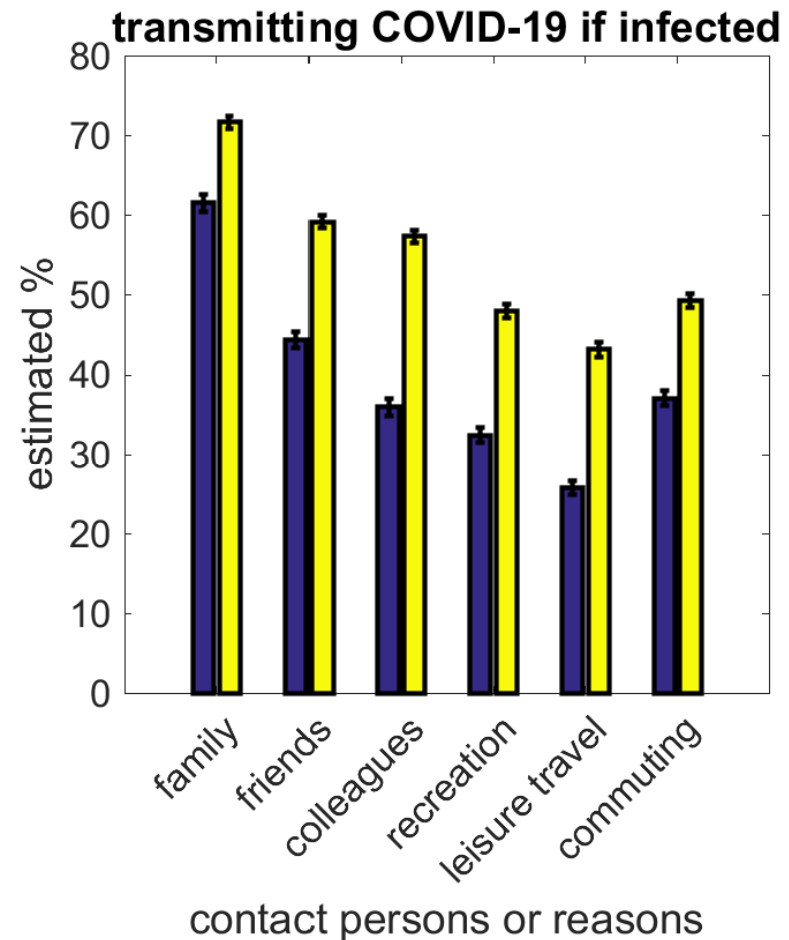
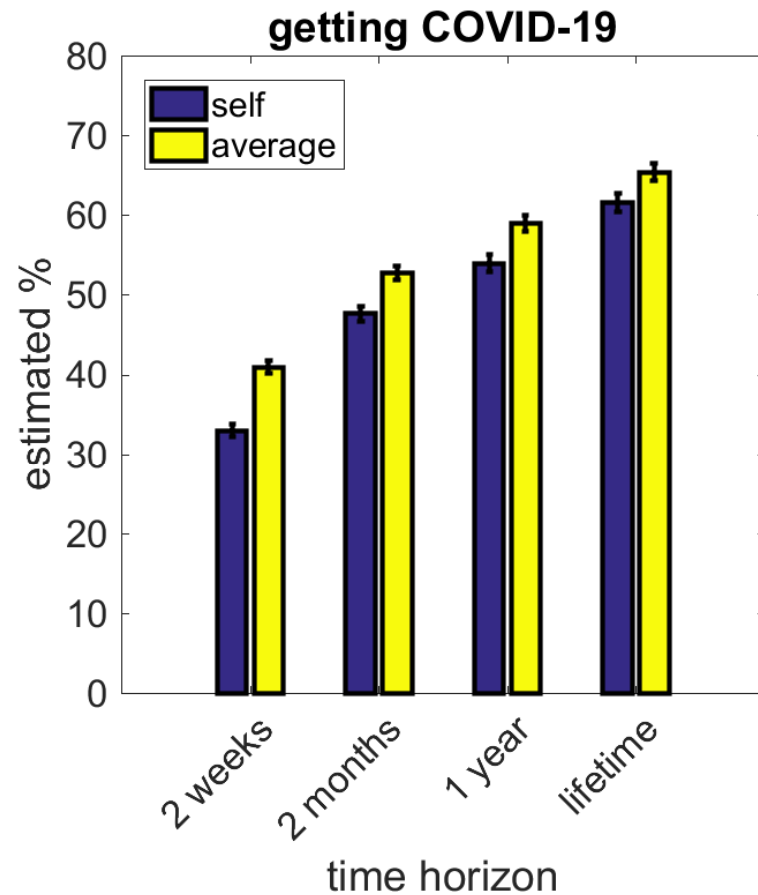
<https://psyarxiv.com/epcyb/>

- 2nd data acquisition on 01.04.2020 in Germany, UK, & USA with
retest of previous sample & new sample

Pre-registration:

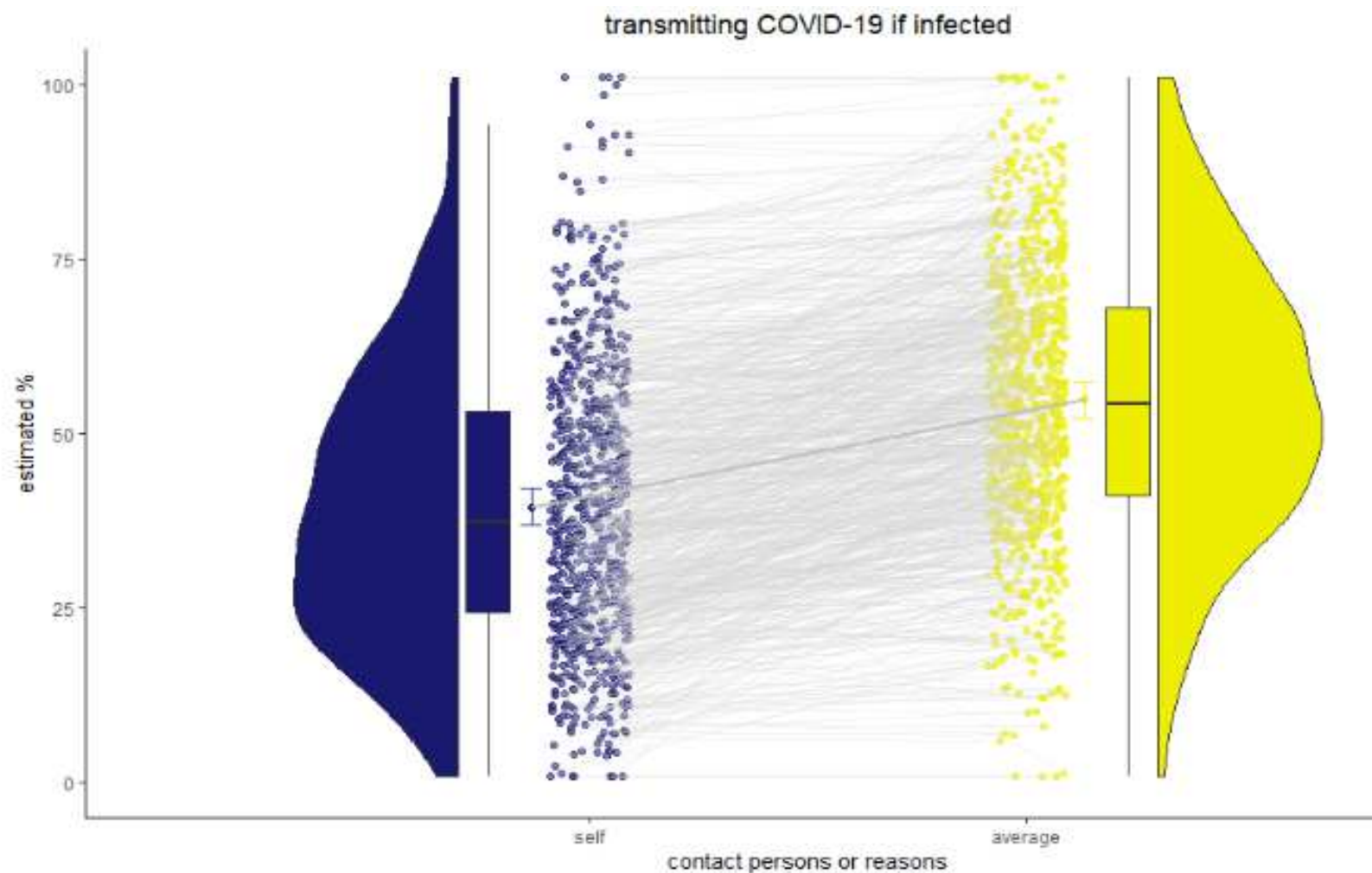
<https://osf.io/v7yeb/>

Optimistic beliefs for COVID-19 on 16.03.2020 across 3 countries

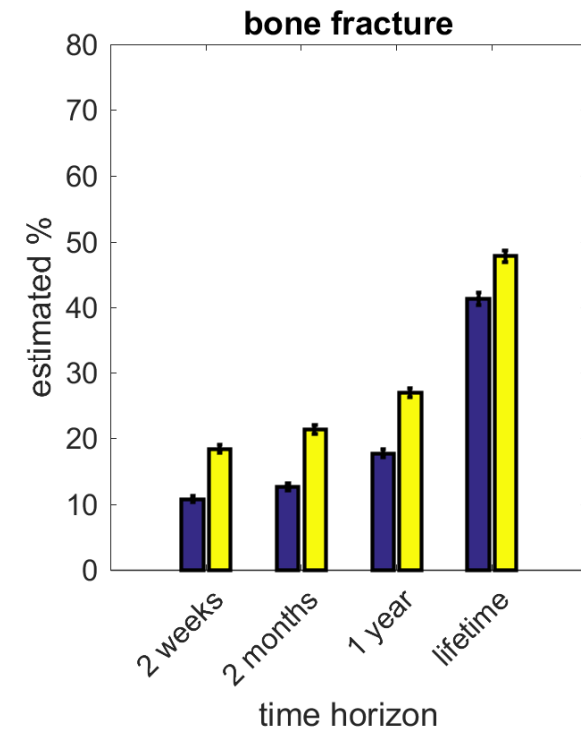
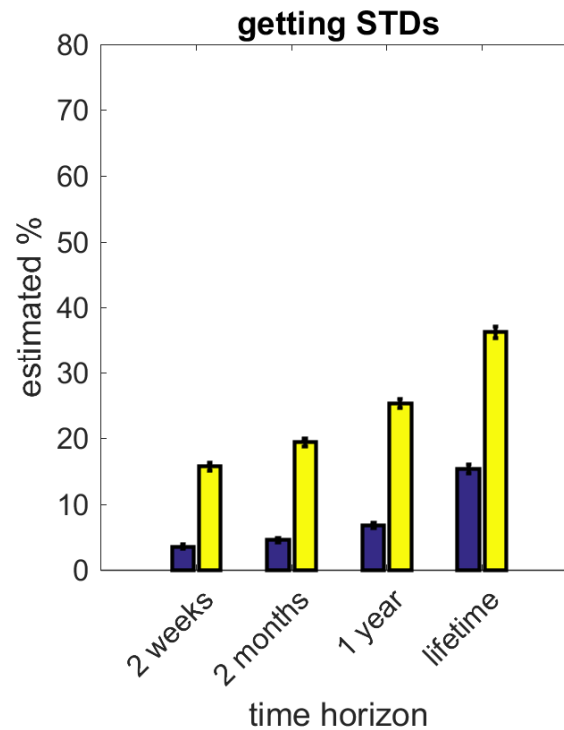
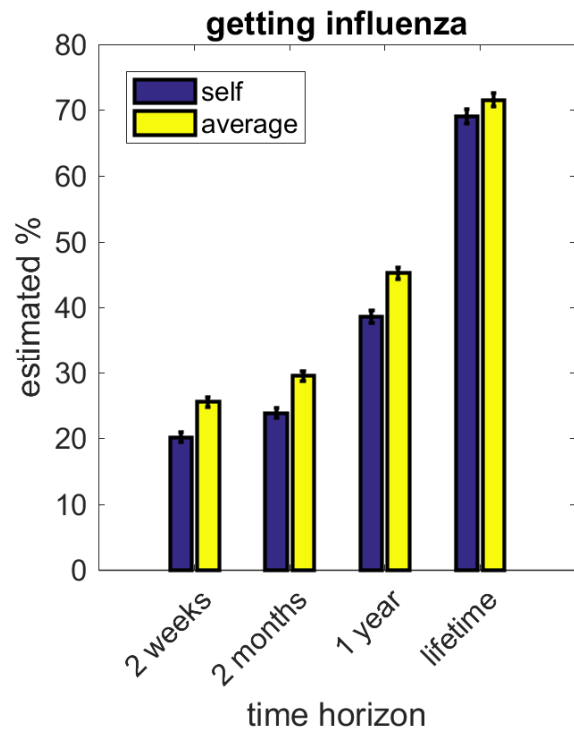


1st data acquisition on 16.03.2020 in Germany (n=199), UK (n=364), & USA (265)

Optimistic beliefs for COVID-19 on 16.03.2020 across 3 countries

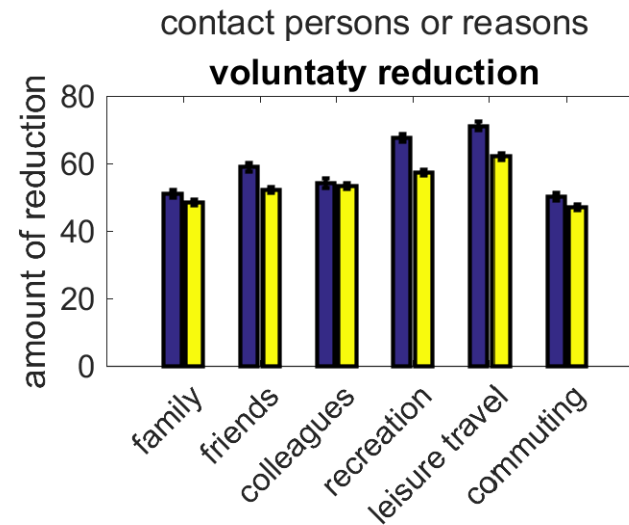
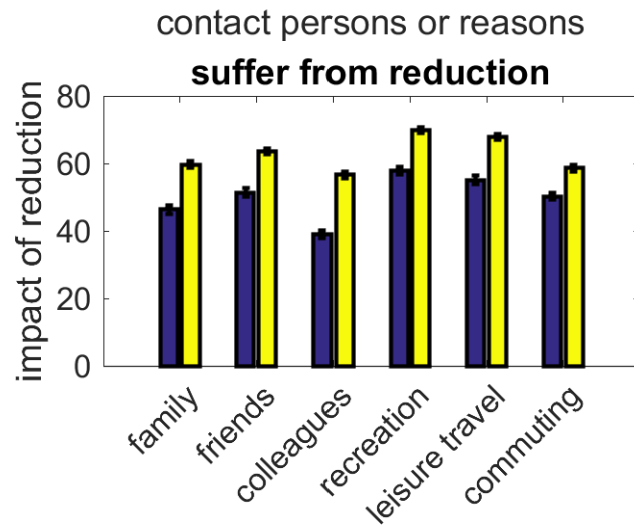
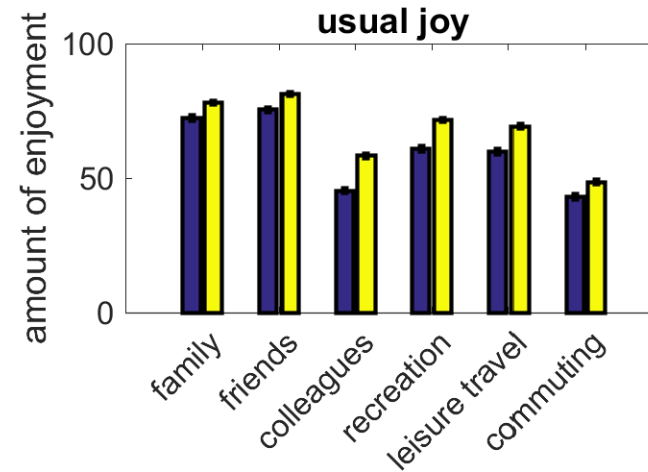
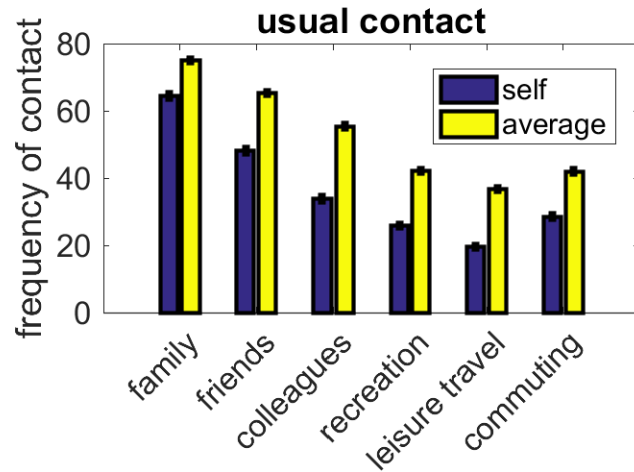


Optimistic beliefs for other health risks on 16.03.2020 across 3 countries



1st data acquisition on 16.03.2020 in Germany (n=199), UK (n=364), & USA (265)

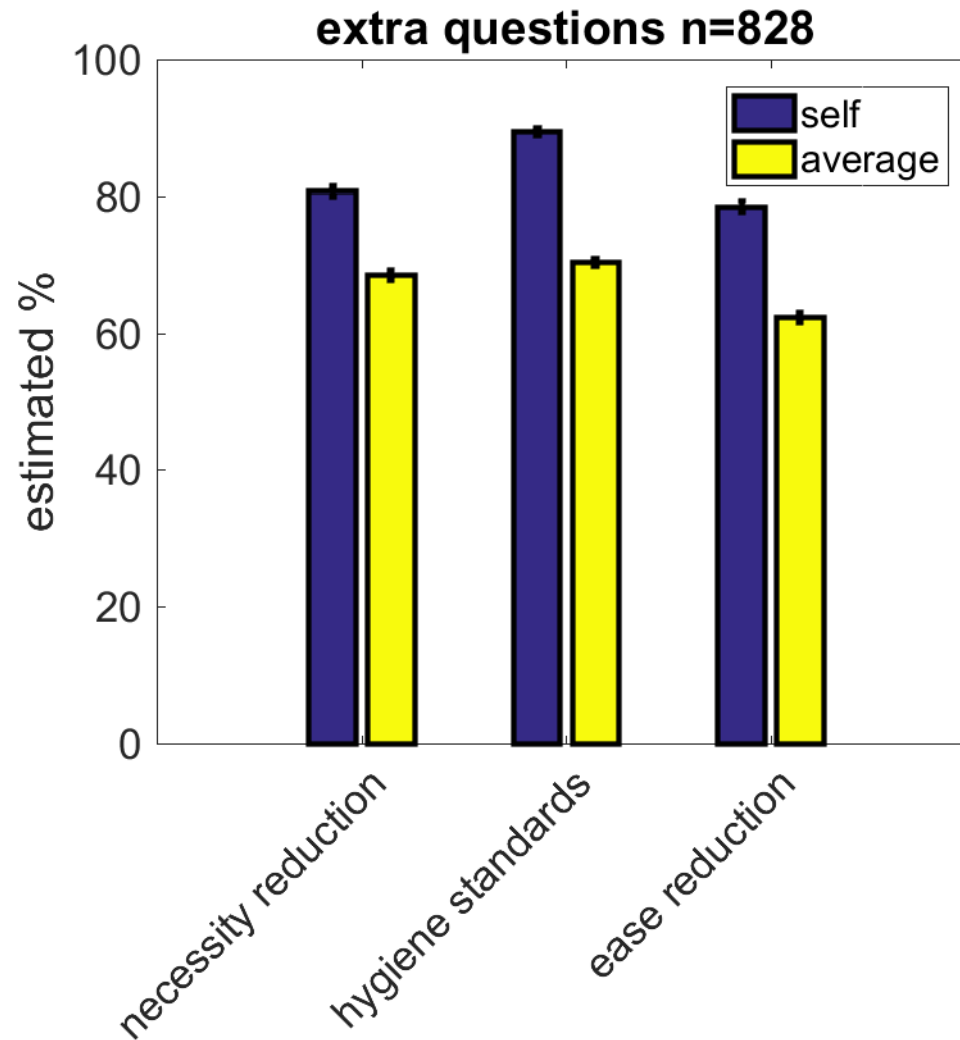
Why are there optimistic beliefs for COVID-19? How do they relate?



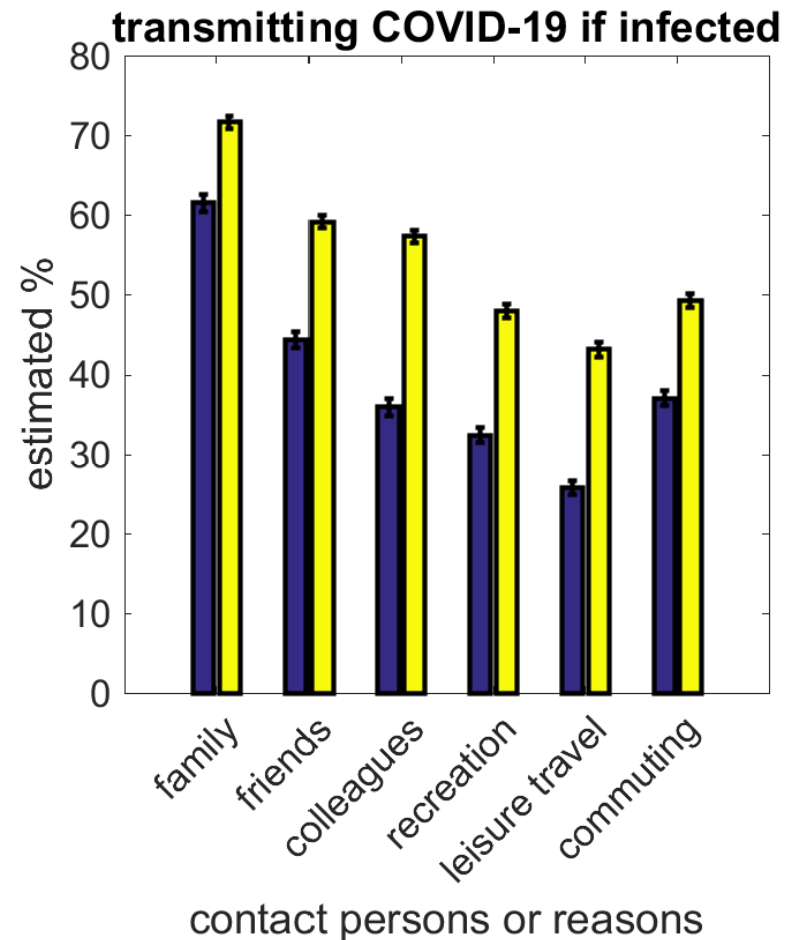
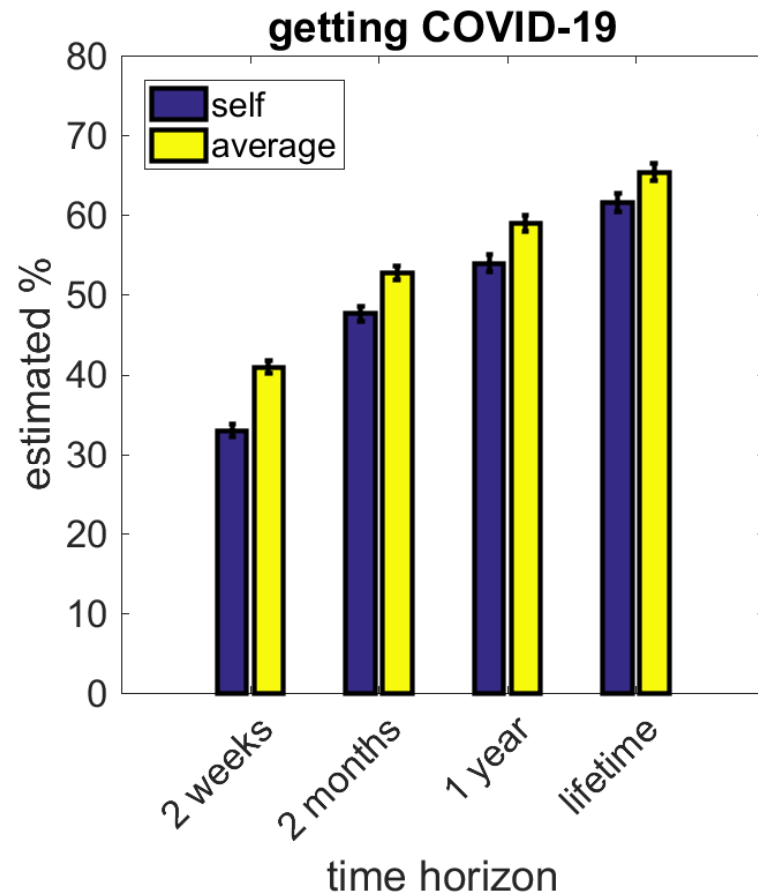
contact persons or reasons

contact persons or reasons

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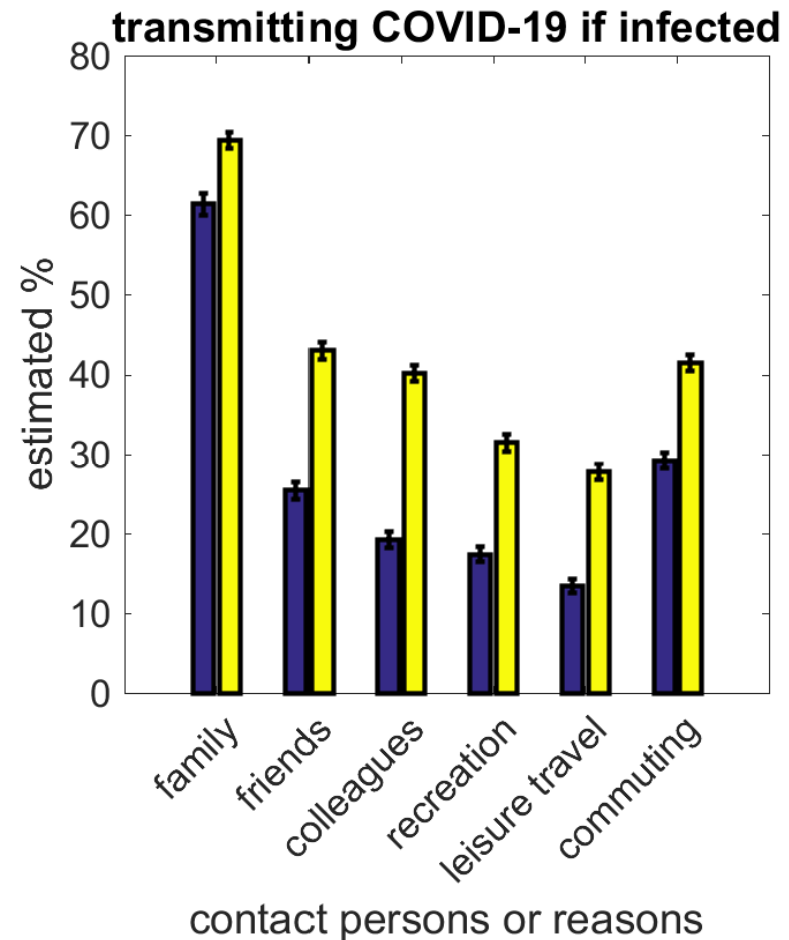
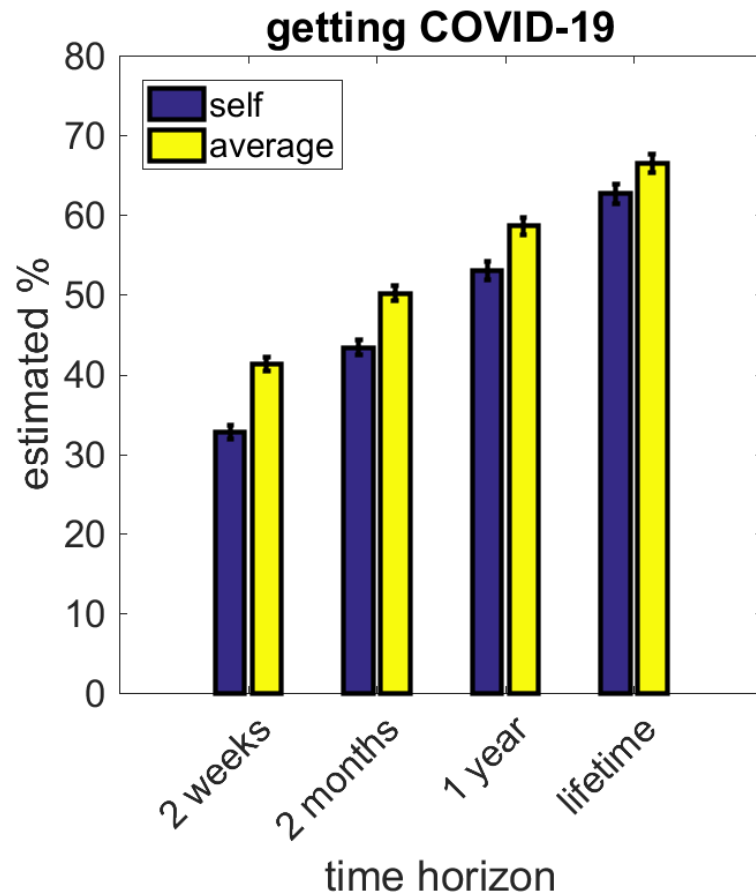


Optimistic beliefs for COVID-19 on 16.03.2020 across 3 countries



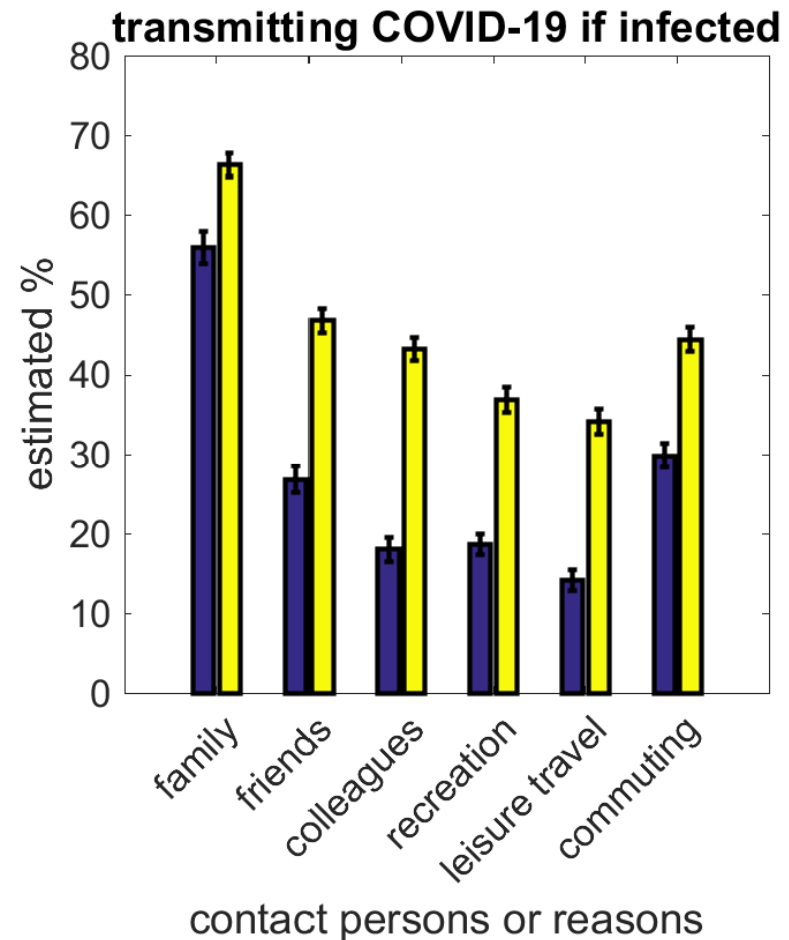
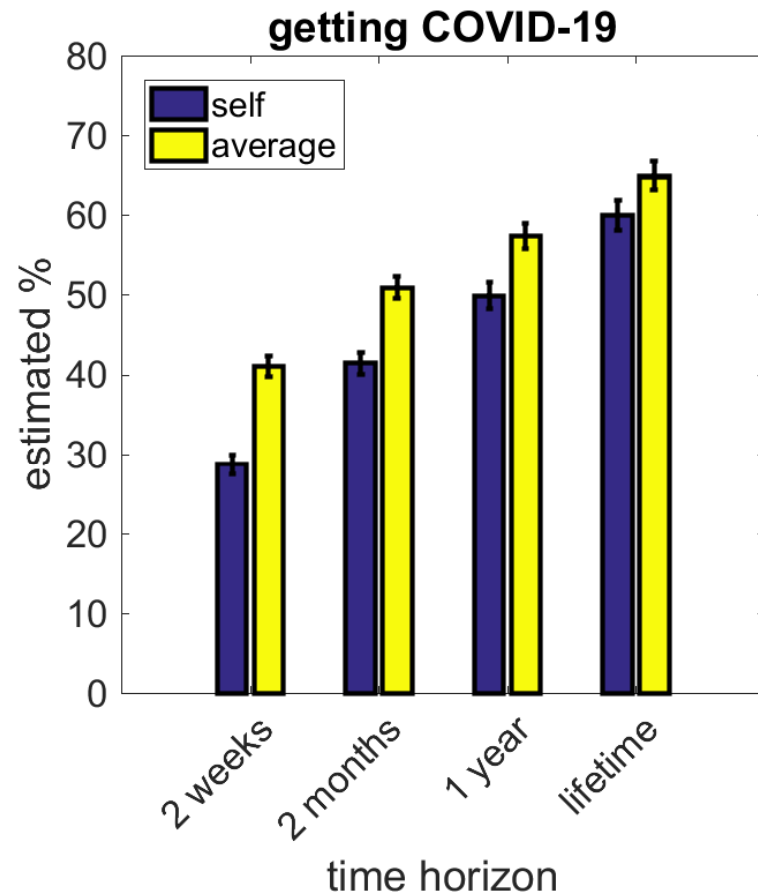
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Optimistic beliefs for COVID-19 on 01.04.2020 across 3 countries



2nd data acquisition on 01.04.2020: **Retest of previous sample** & new sample in 3 countries

Optimistic beliefs for COVID-19 on 01.04.2020 across 3 countries



2nd data acquisition on 01.04.2020: Retest of previous sample & **new sample** in 3 countries

Optimistic beliefs about the personal impact of COVID-19

Suggestions & questions

Bilingual decision-making

- Bilingualism & framing effects
- Bilingualism & optimism
- Disfluency & framing effects

Oganian, **Korn**, Heekeren *Exp Psychol Learn Mem Cogn* 2015

Korn, Heekeren, Oganian *Q J Exp Psychol* 2018

Oganian, Heekeren, **Korn** *Q J Exp Psychol* 2018

Korn, Ries, Schalk, **Oganian**, Saalbach *Psychon Bull Rev* 2018

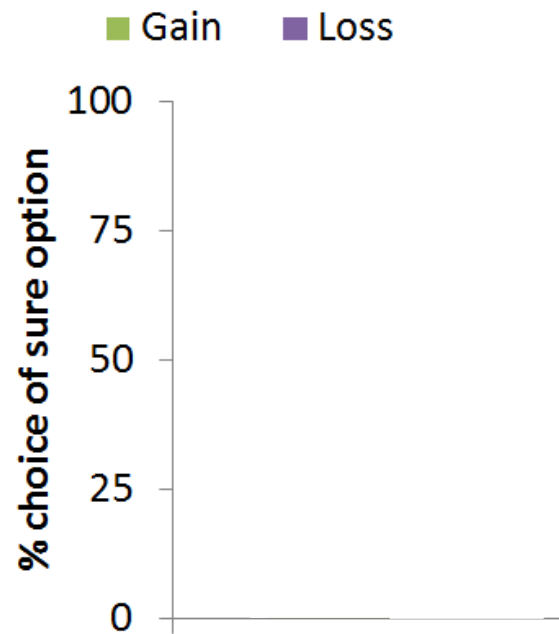
Bilingualism & framing effects

Slide by Yulia Oganian

Asian Disease Problem

Recently a dangerous new disease has been going around. Without medicine **600 people** will die from it. In order to save these people, two types of medicine are being made.

Which one will you choose?



Medicine A



200



400



Medicine B



33 %



600



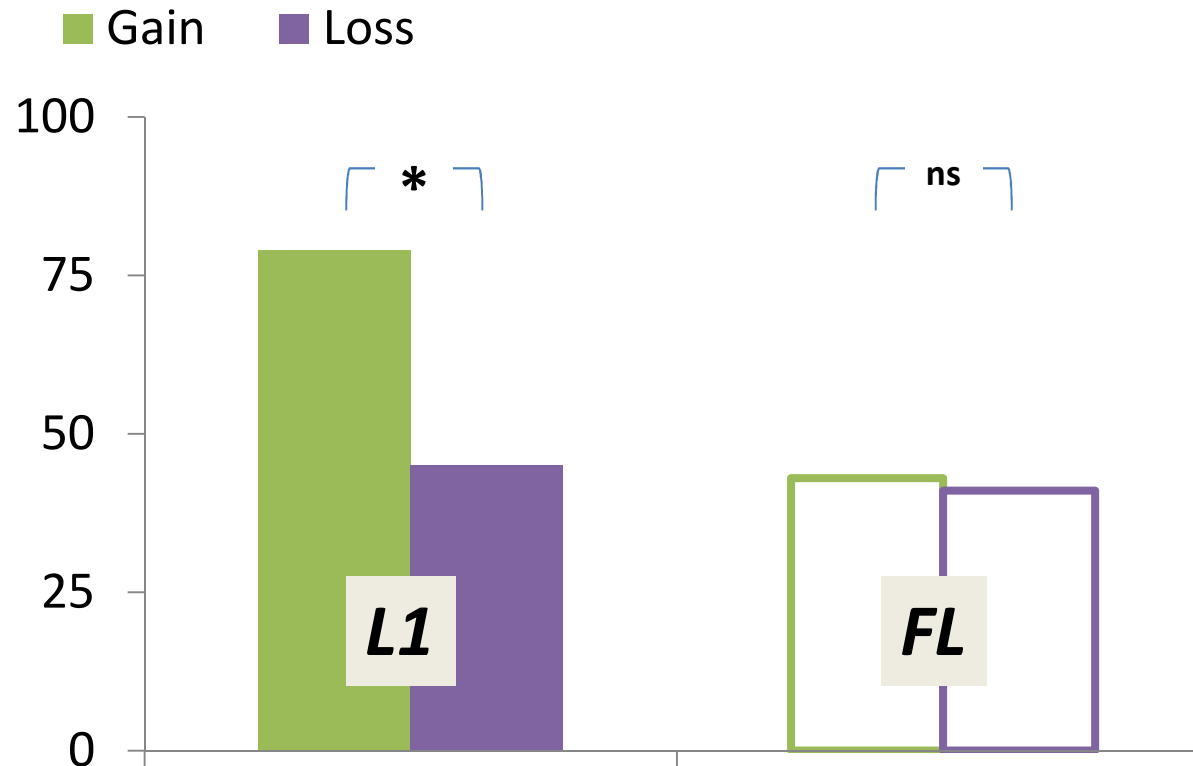
600



Bilingualism & framing effects

Slide by Yulia Oganian

English – Japanese
English – French
Hebrew – Arabic

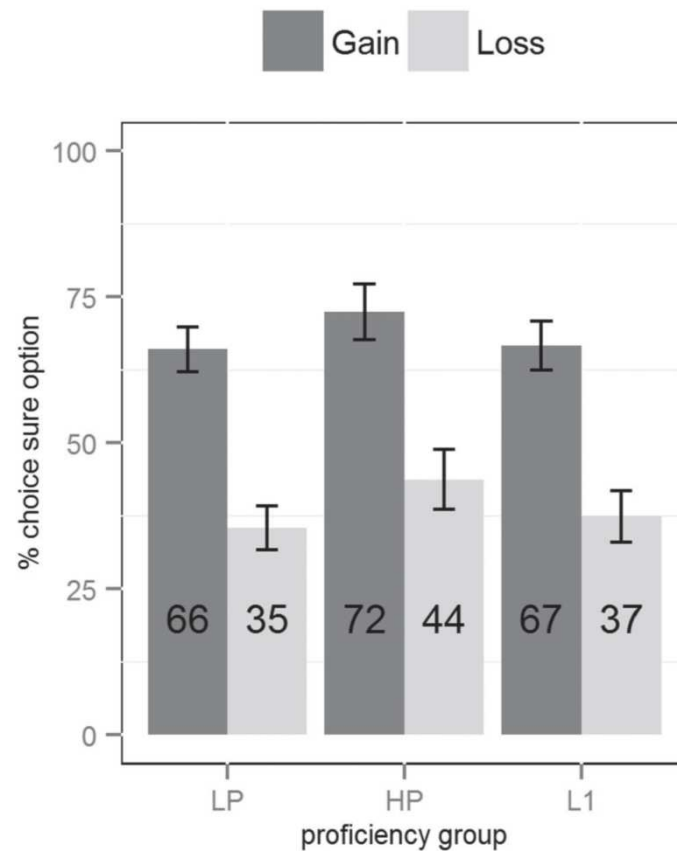


Keysar et al. *Psych Science* 2012

Costa et al., *Cognition* 2014

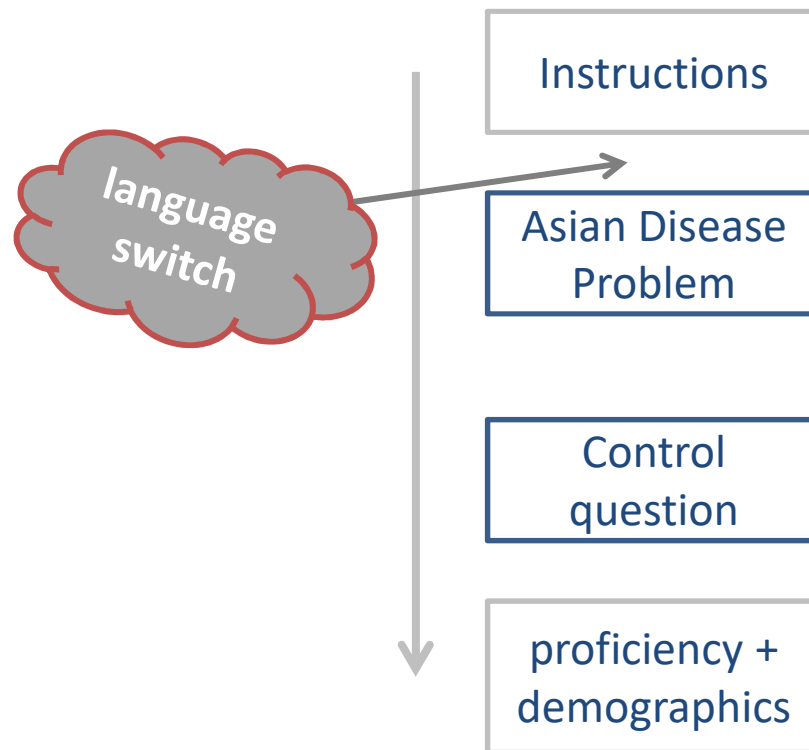
Bilingualism & framing effects

Hypothesis 1: Framing effect is larger in high-proficiency foreign language speakers than in low-proficiency speakers



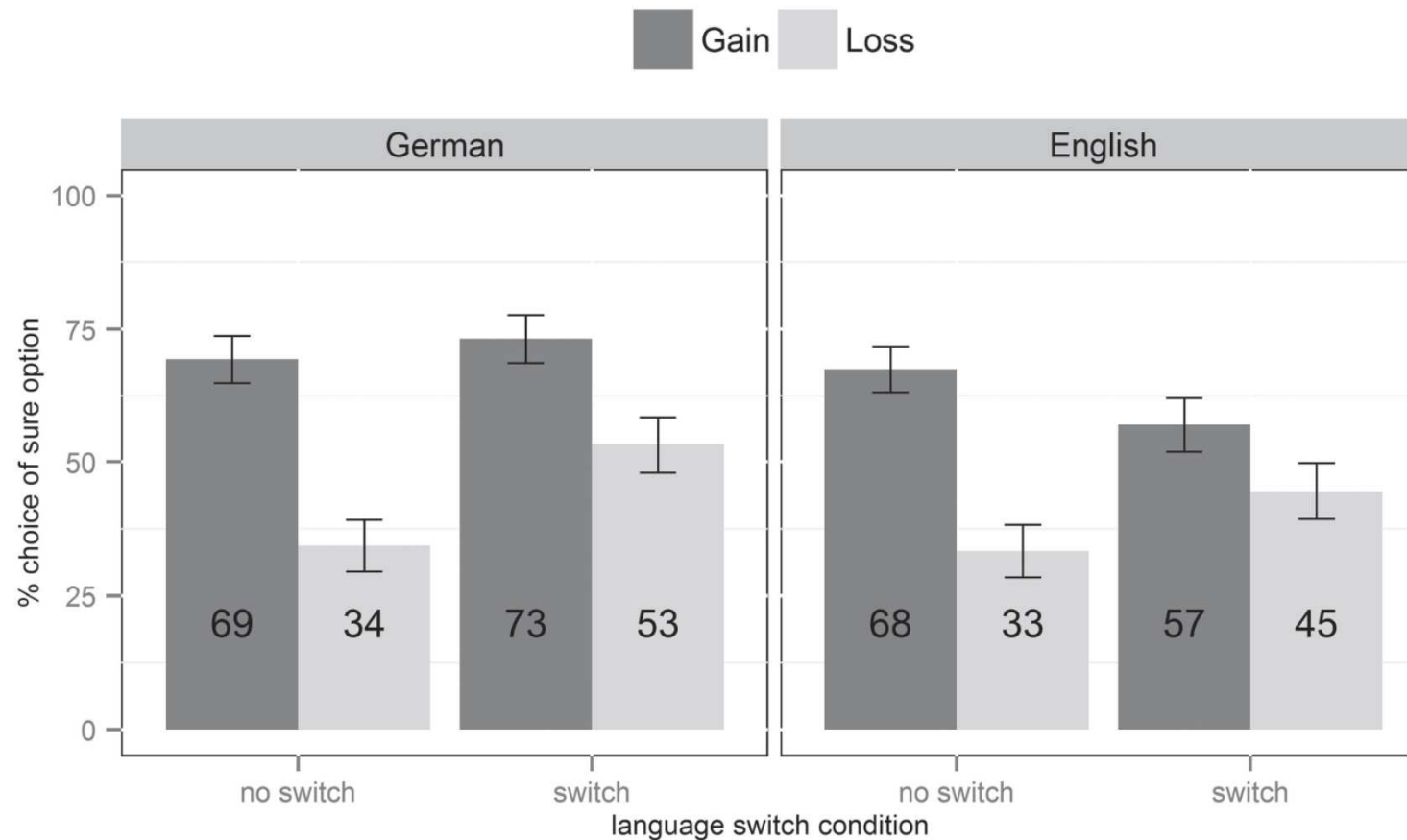
Bilingualism & framing effects

Hypothesis 2: Is the foreign language effect due to enhanced cognitive control during language switching?



Bilingualism & framing effects

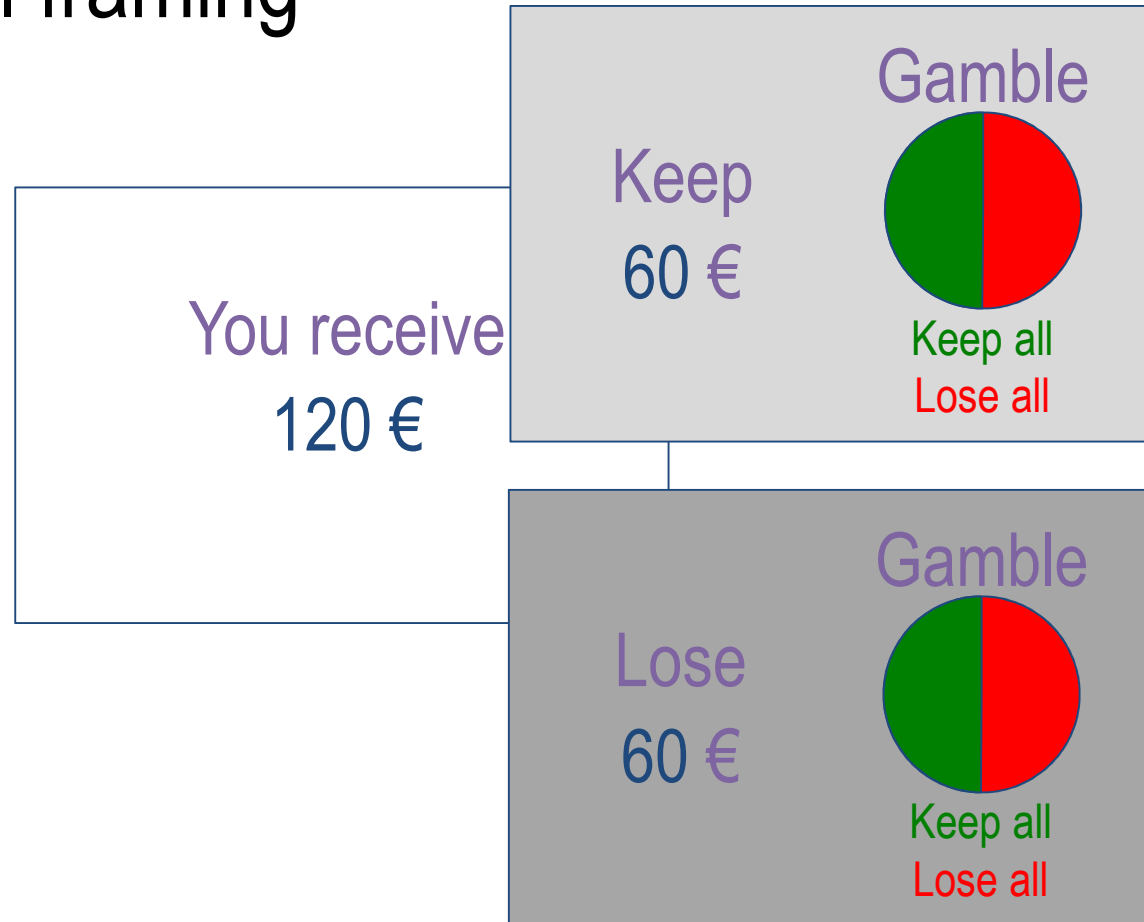
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Bilingualism & framing effects

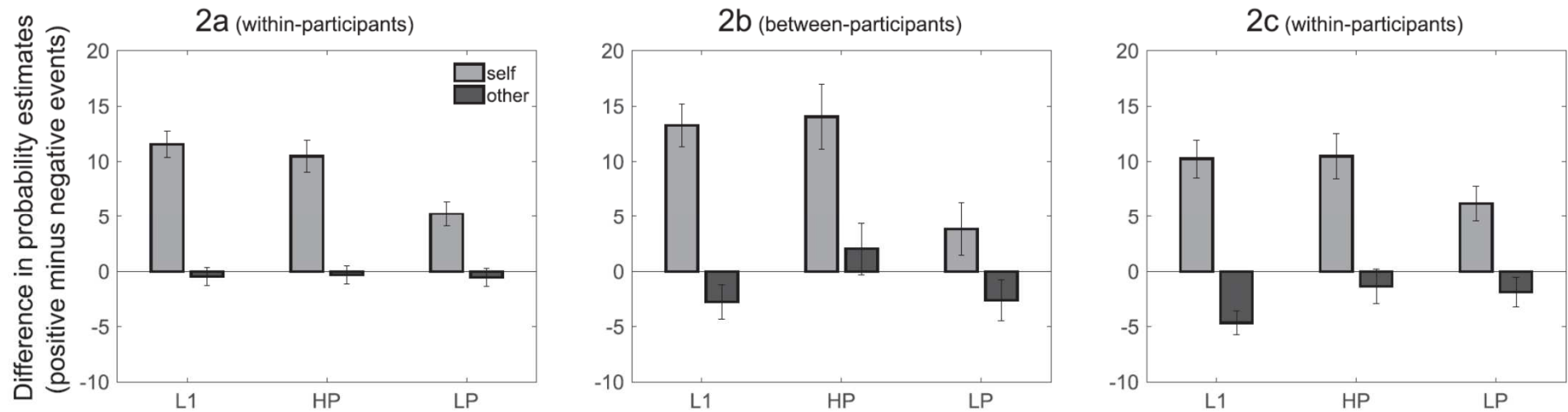
Financial framing

adapted from de Martino et al., *Science* 2006



Bilingualism & optimism

Question : Does comparative optimism depend on foreign language proficiency?



Online studies on bilingualism & decision-making

- All articles combined lab & online samples
- Large samples were needed for statistical power
- Designs had – & required – small trial number
- SoSciSurvey panel was helpful but also restricted
- Don't collect data for too many questions in the same sample
- Pre-registration of new study parts rather straightforward

Oganian, **Korn**, Heekeren *Exp Psychol Learn Mem Cogn* 2015

Korn, Heekeren, Ogania *Q J Exp Psychol* 2018

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Thank you very much for your interest!
Many thanks to the colleagues involved in these studies:



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Henrik Saalbach



Yulia Oganian



Gabriela Rosenblau



Hauke Heekeren