

***Something from nothing:
Agency for deliberate non-actions***

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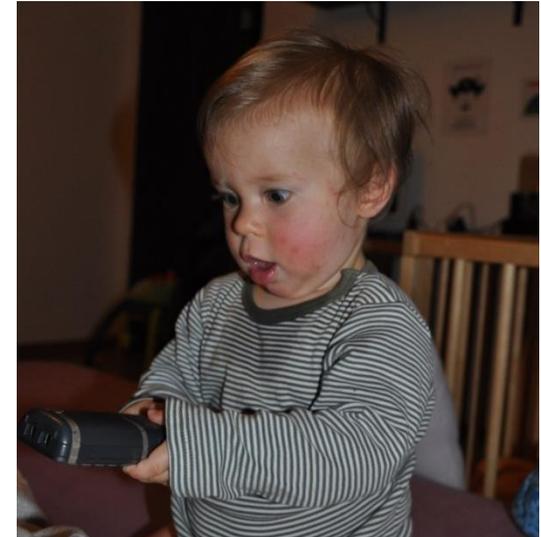


Lisa Weller

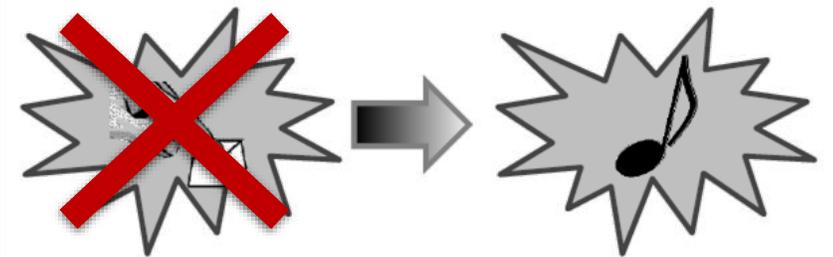
Sense of Agency

Agency := „*the feeling of control over one’s own actions and, through these actions, also over events in the environment.*“

(e.g., Haggard, 2008, 2009, [...] 2019)



Research question: Does agency also emerge similarly for the consequences of deliberate non-actions?



Agency for non-actions

N/A
Failure to render
assistance

§323c
Strafgesetzbuch

article 223-6
Code pénal

artículo 195
Código penal

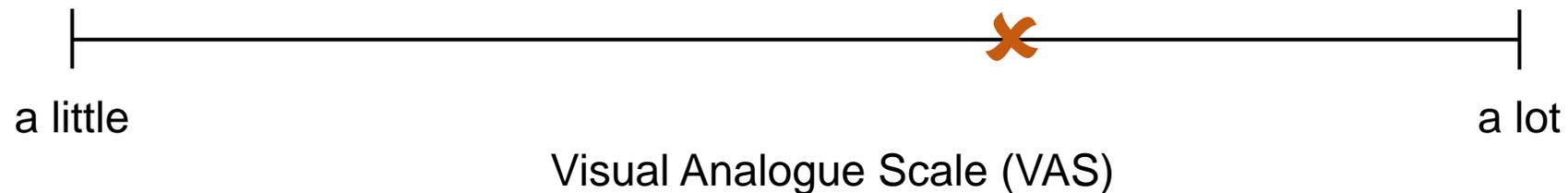


- ❖ Quebec Charter of human rights and freedoms, chapter 1, art. 2
- ❖ Quebec's Highway Safety Code, art. 168
- ❖ **Criminal code**, art. 216
- ❖ **Civil code** of Quebec, art. 1471

Measuring agency (e.g., Dewey & Knoblich, 2014)

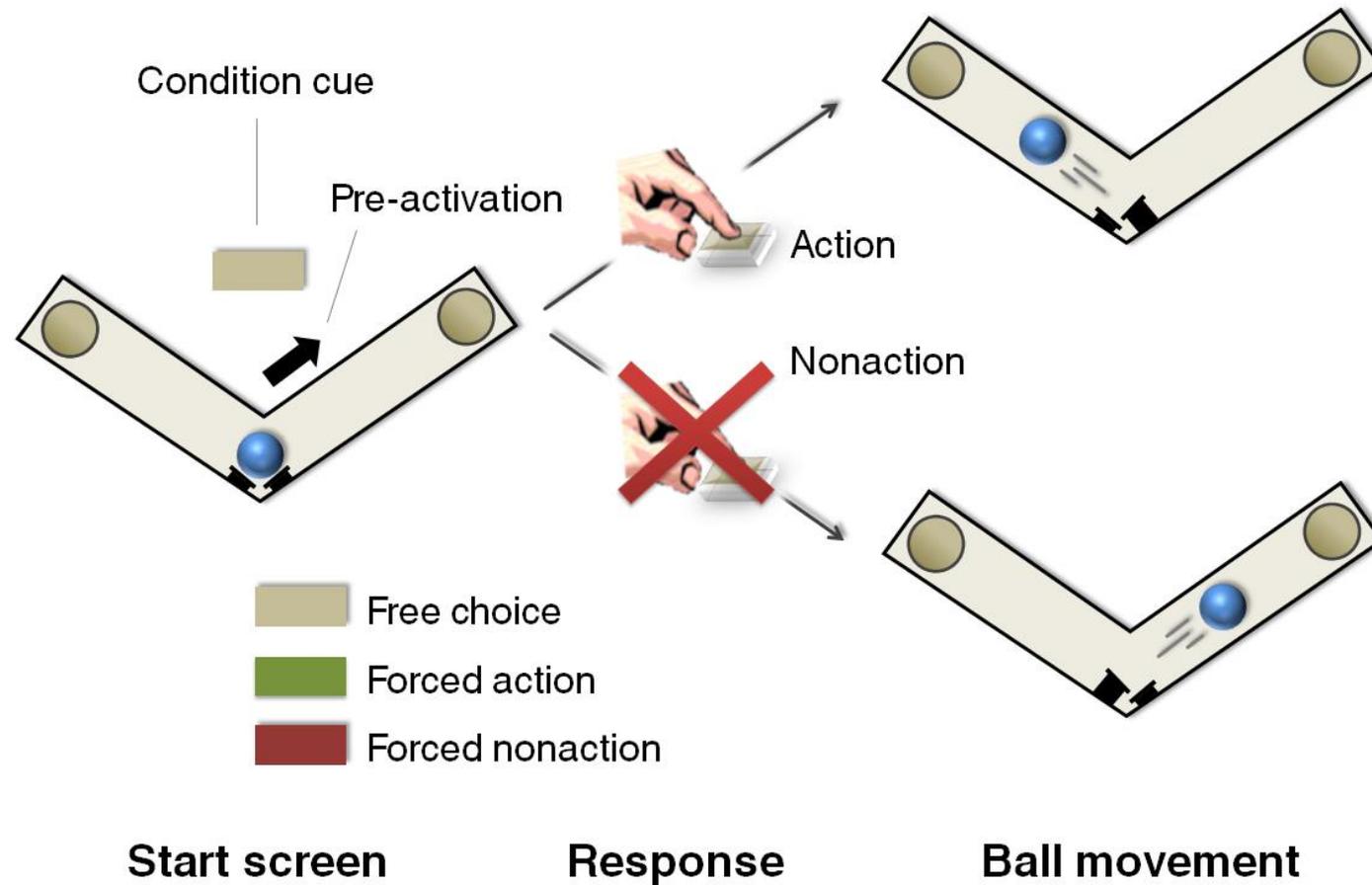
- Explicit, subjective ratings

„How strongly did you feel to have caused the tone?“

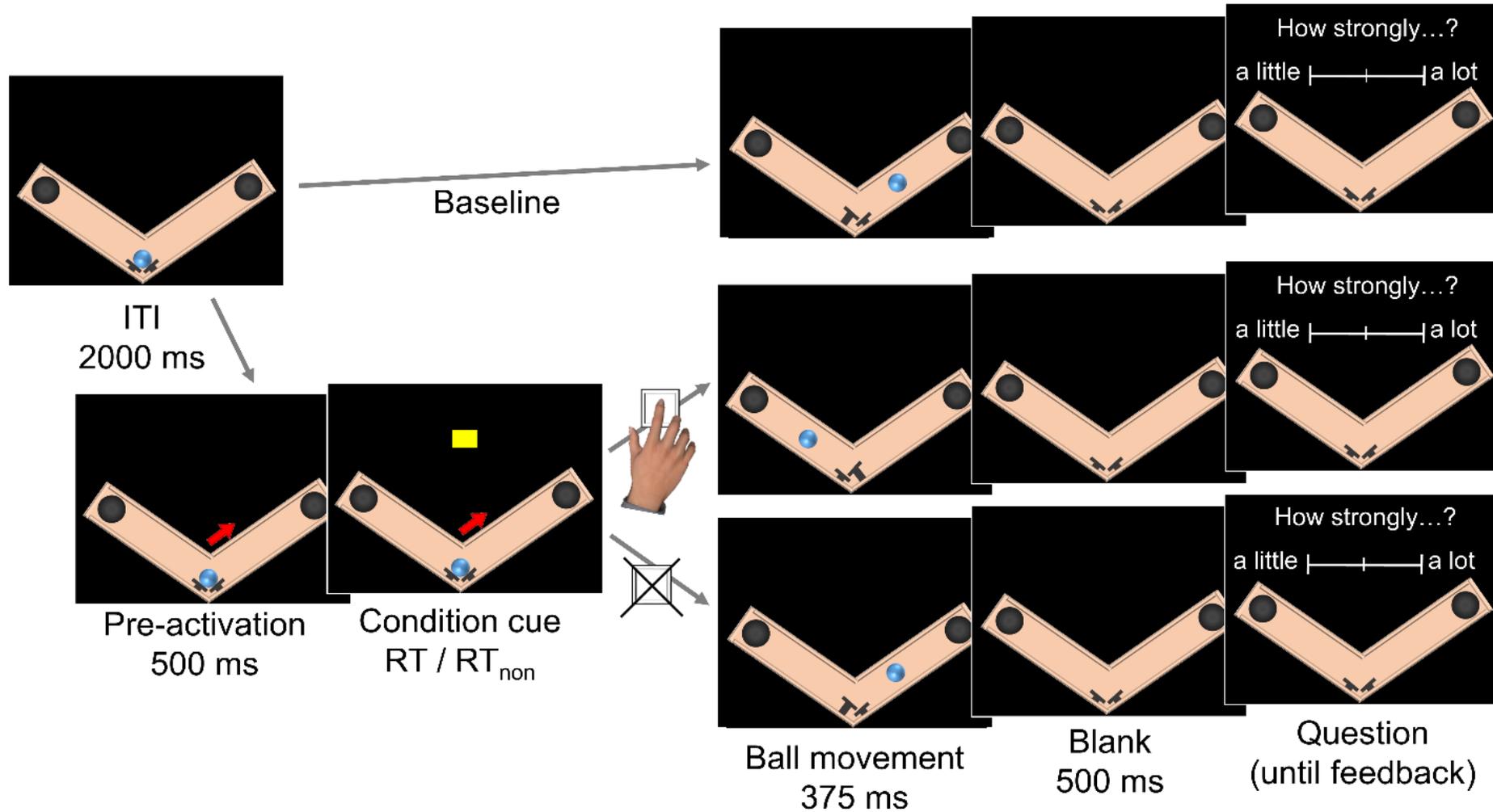


- Temporal binding (implicit)

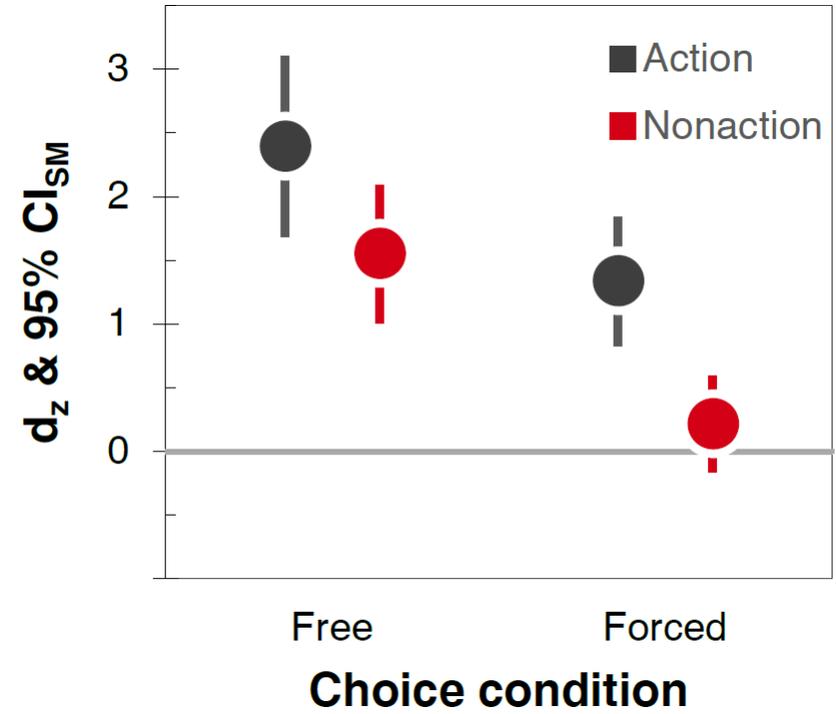
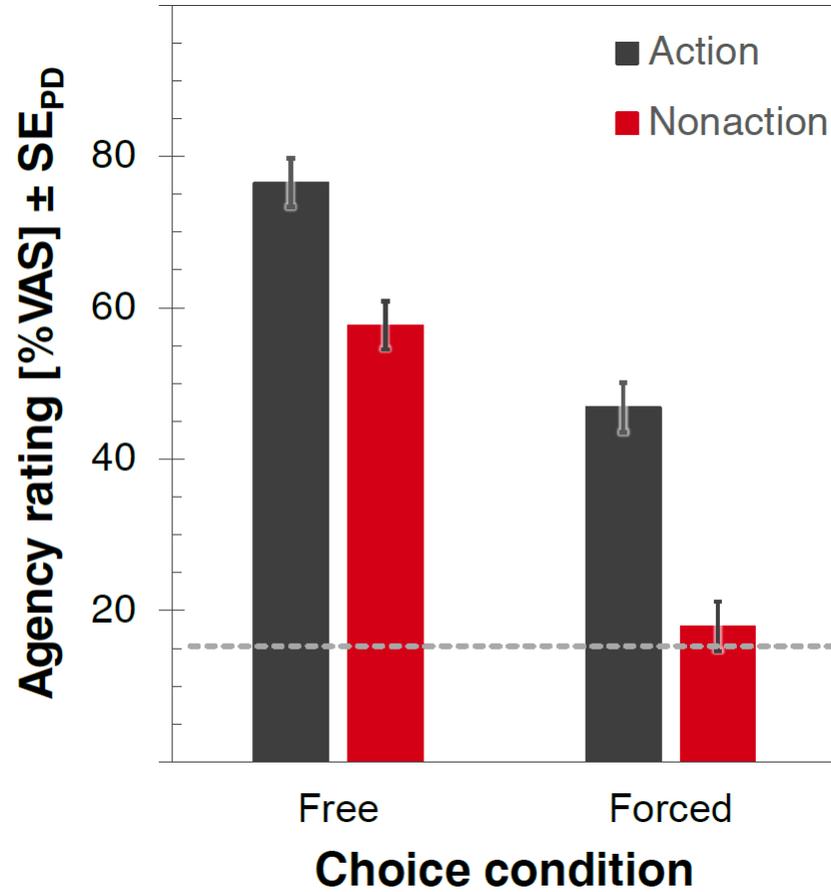
Design - Basics



Design – Details ($N=32$)



Results



SE_{PD} = Standard Error of Paired Differences
(Pfister & Janczyk, 2013)

CI_{SM} = Confidence interval for effect sizes
(MBESS; Kelley, 2018)

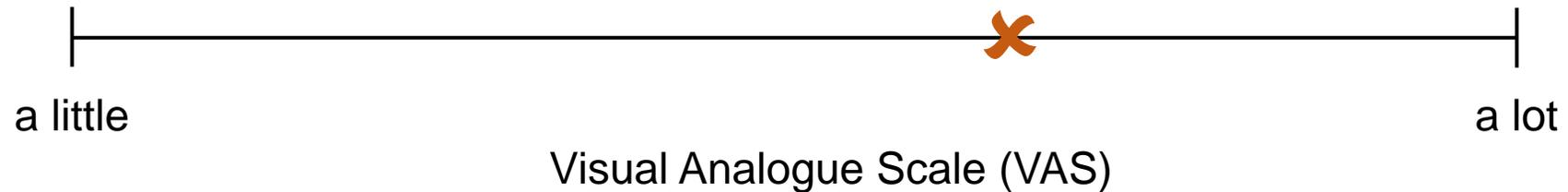
Interim conclusions

- Participants indeed feel agency for non-actions and their consequences, as long as they can make a choice.
- Agency is less pronounced for non-actions as compared equivalent actions.

Measuring agency (e.g., Dewey & Knoblich, 2014)

- Explicit, subjective ratings

„How strongly did you feel to have caused the tone?“

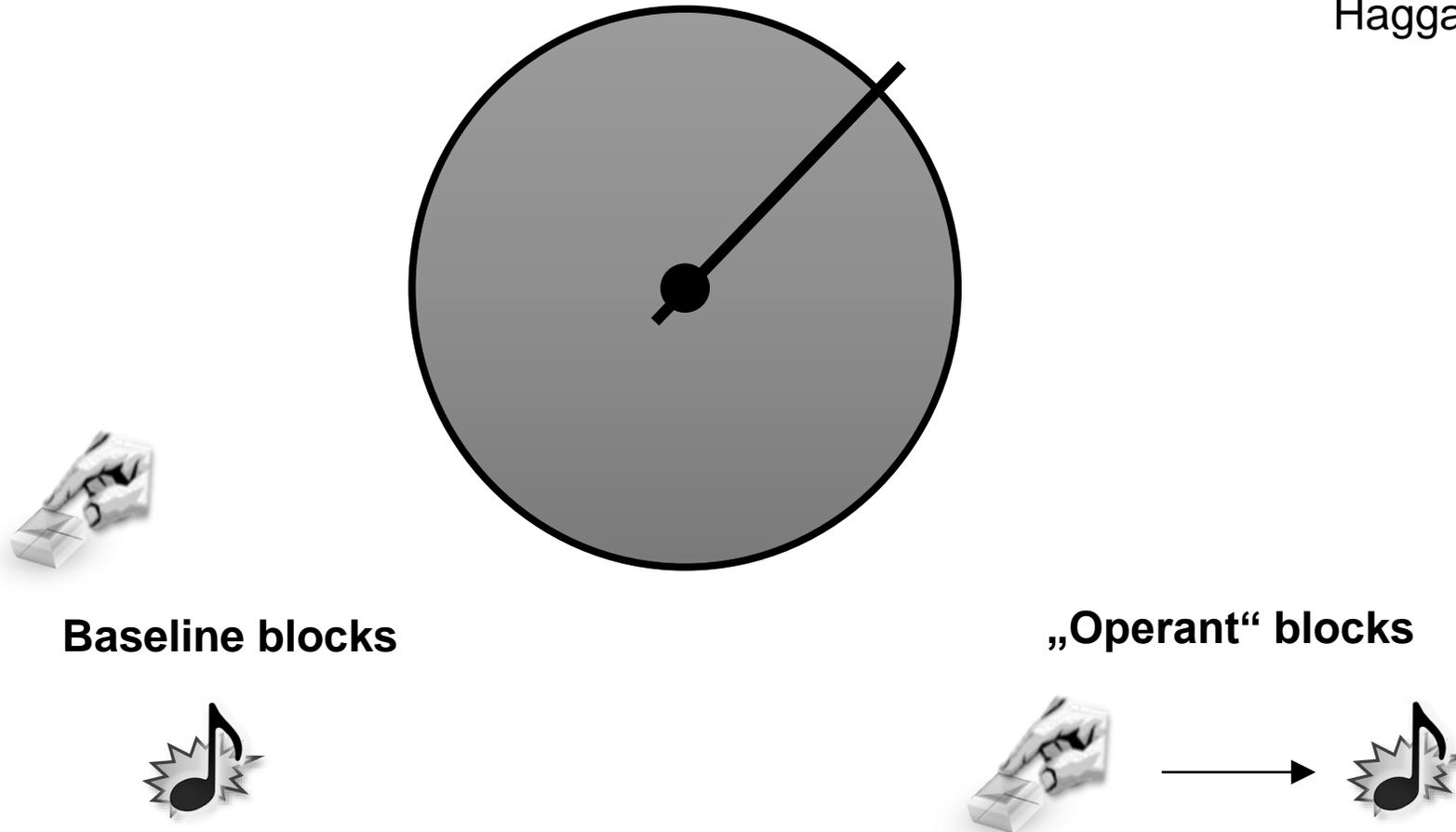


- Temporal binding (implicit)

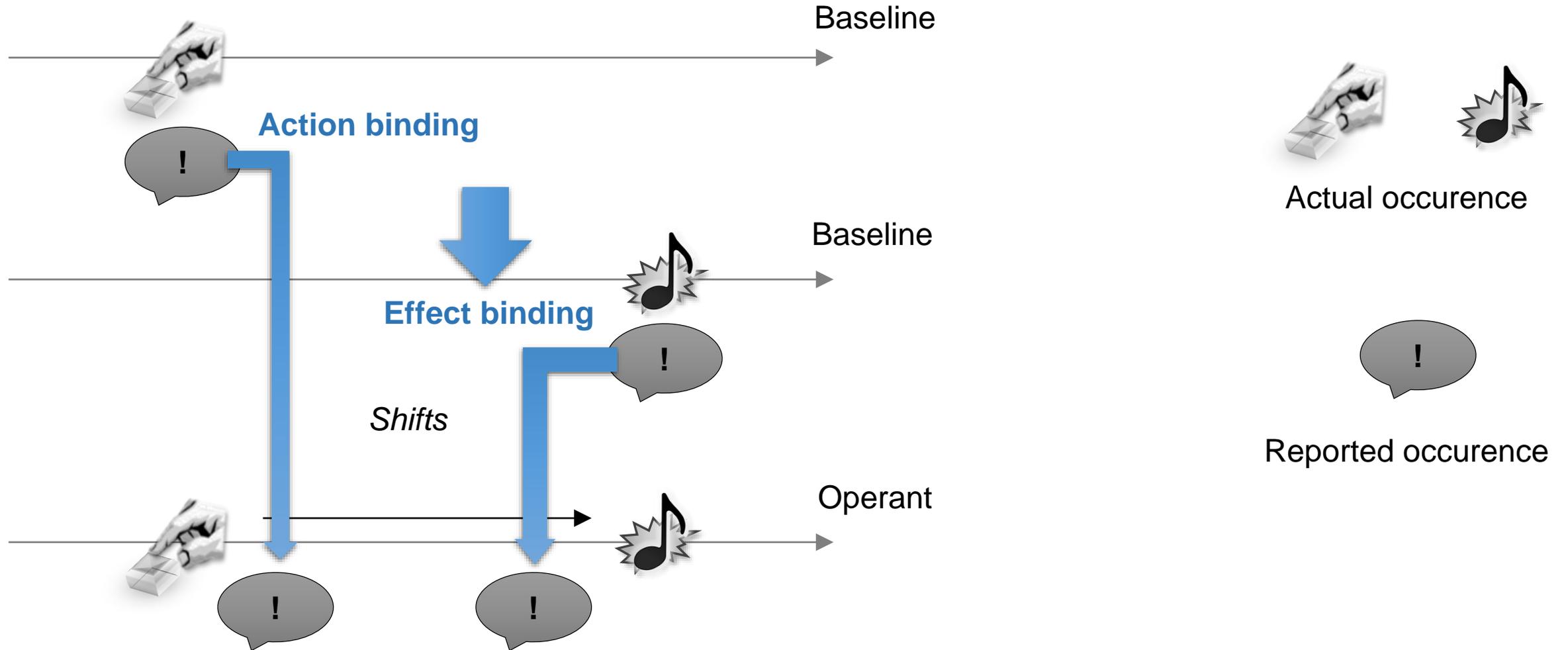


Temporal binding

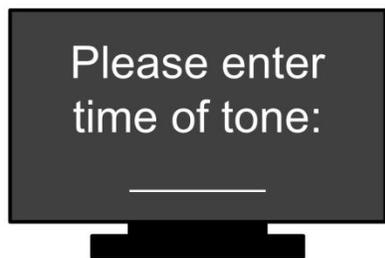
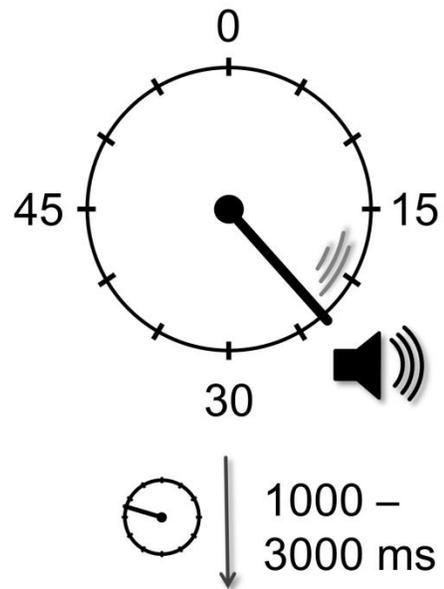
Haggard et al. (2002)



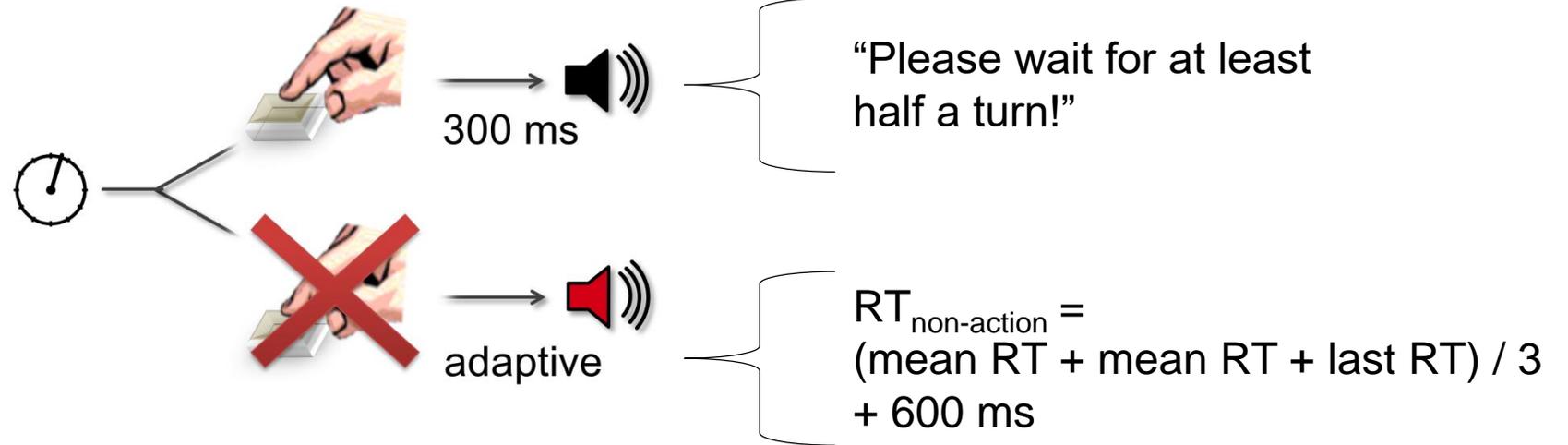
Temporal binding



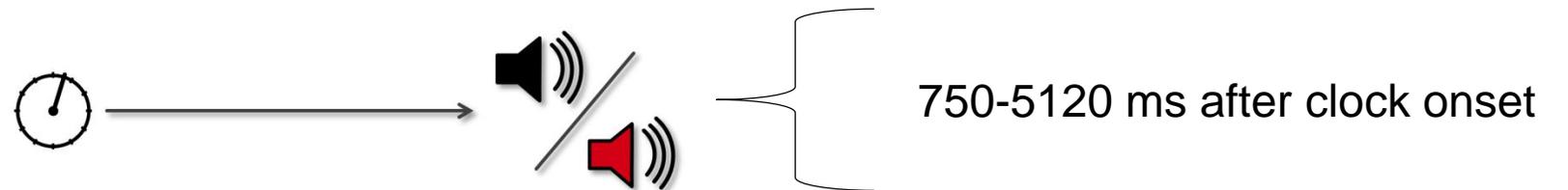
Experiment 2 – Design ($N=34$)



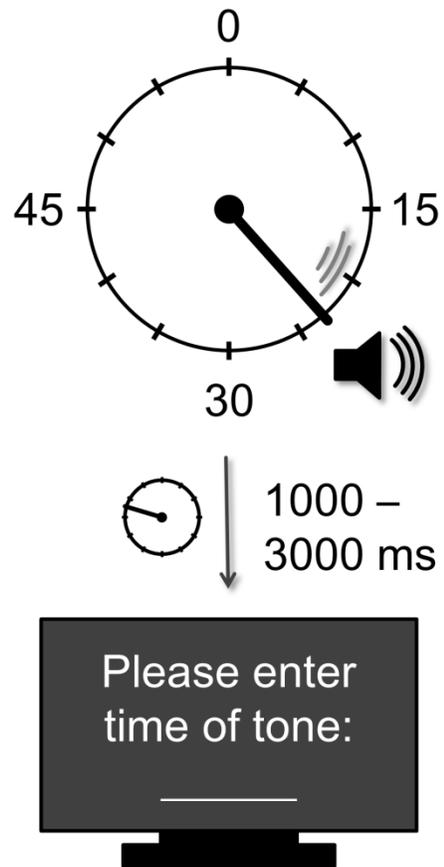
Operant condition



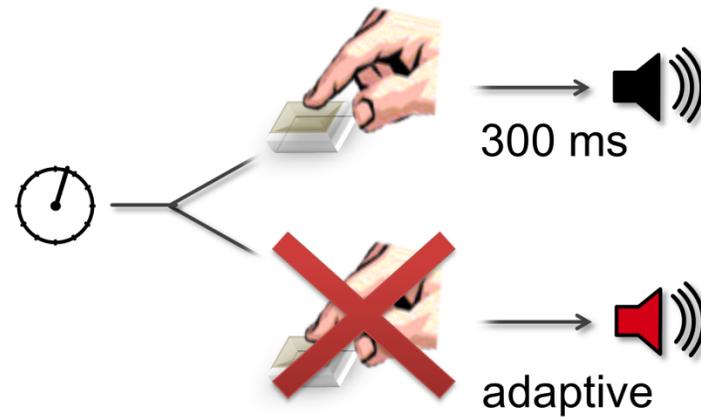
Baseline condition



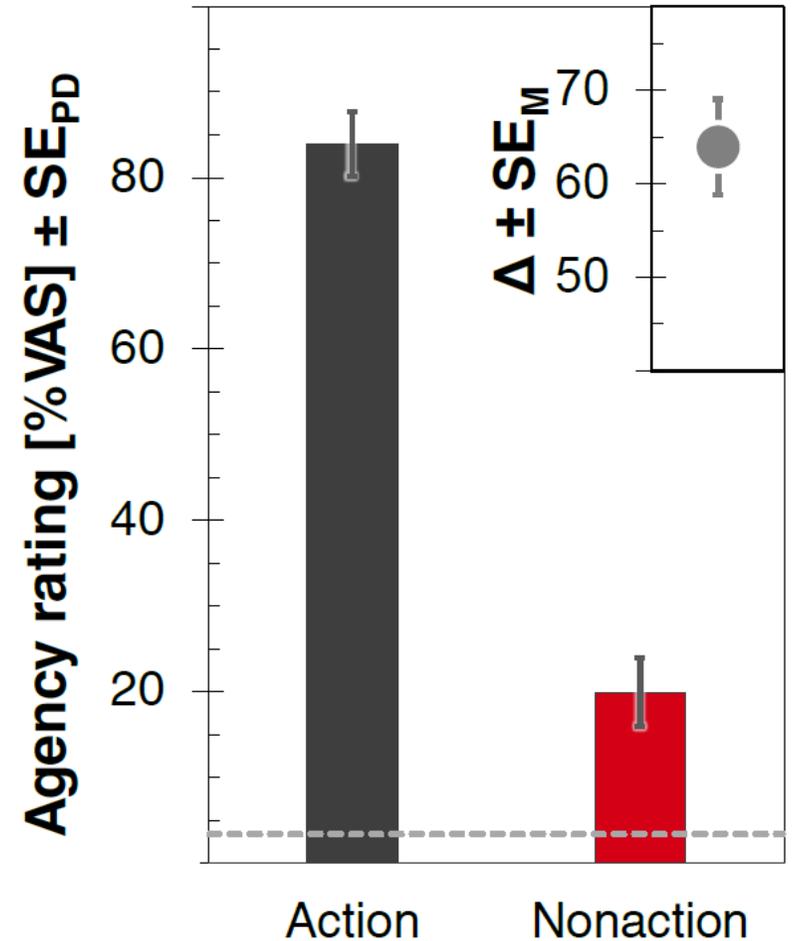
Agency Ratings



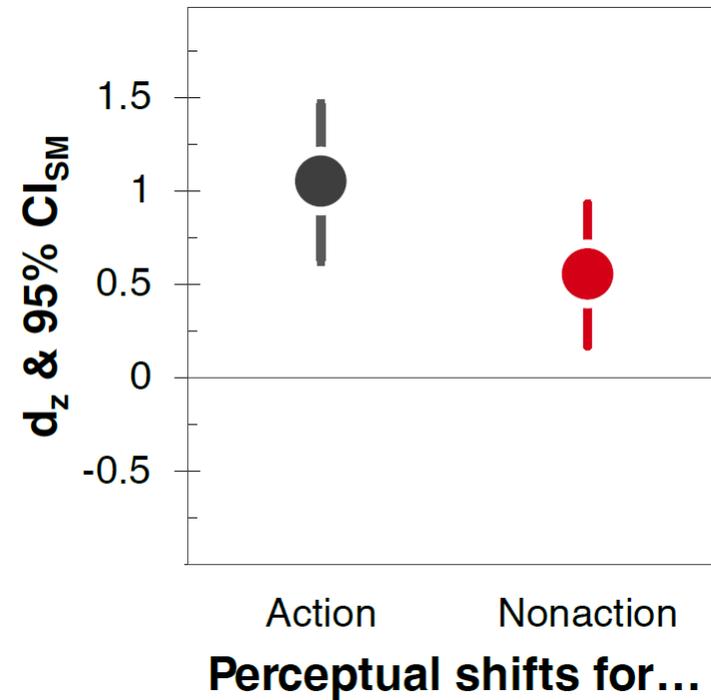
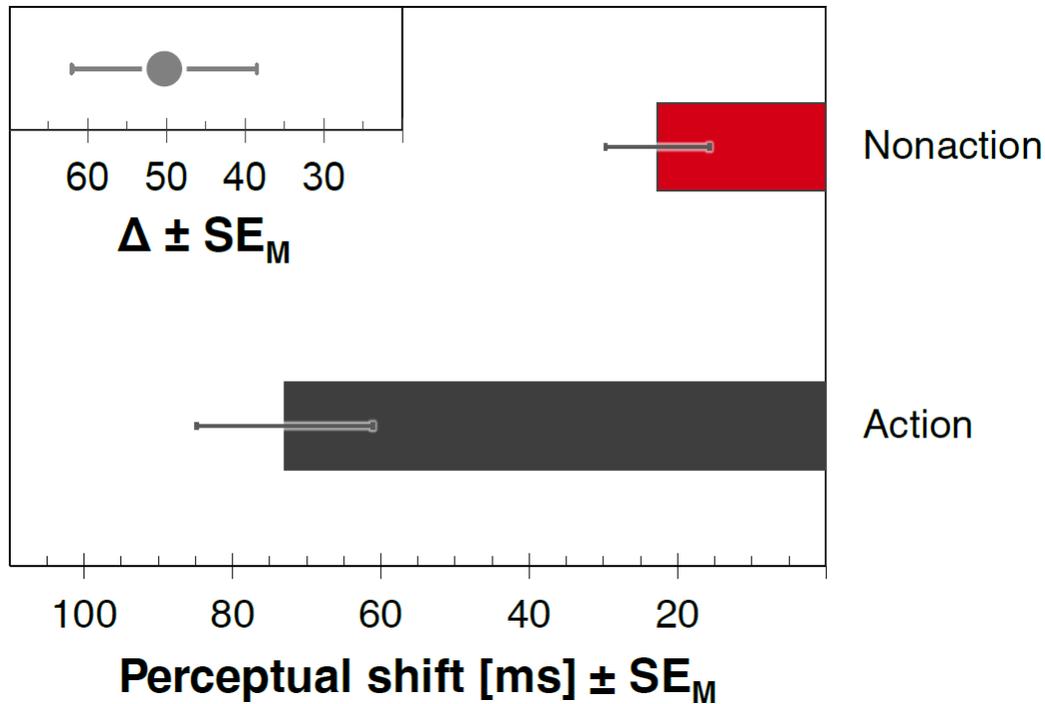
Operant condition



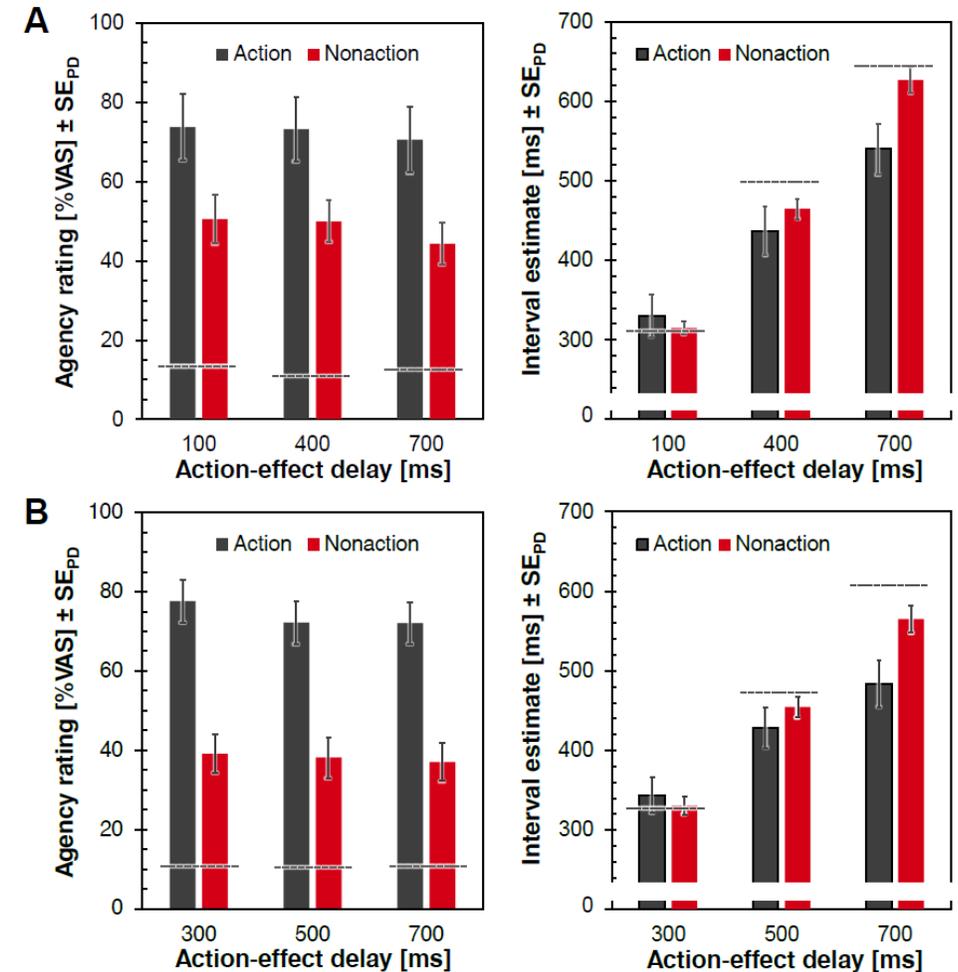
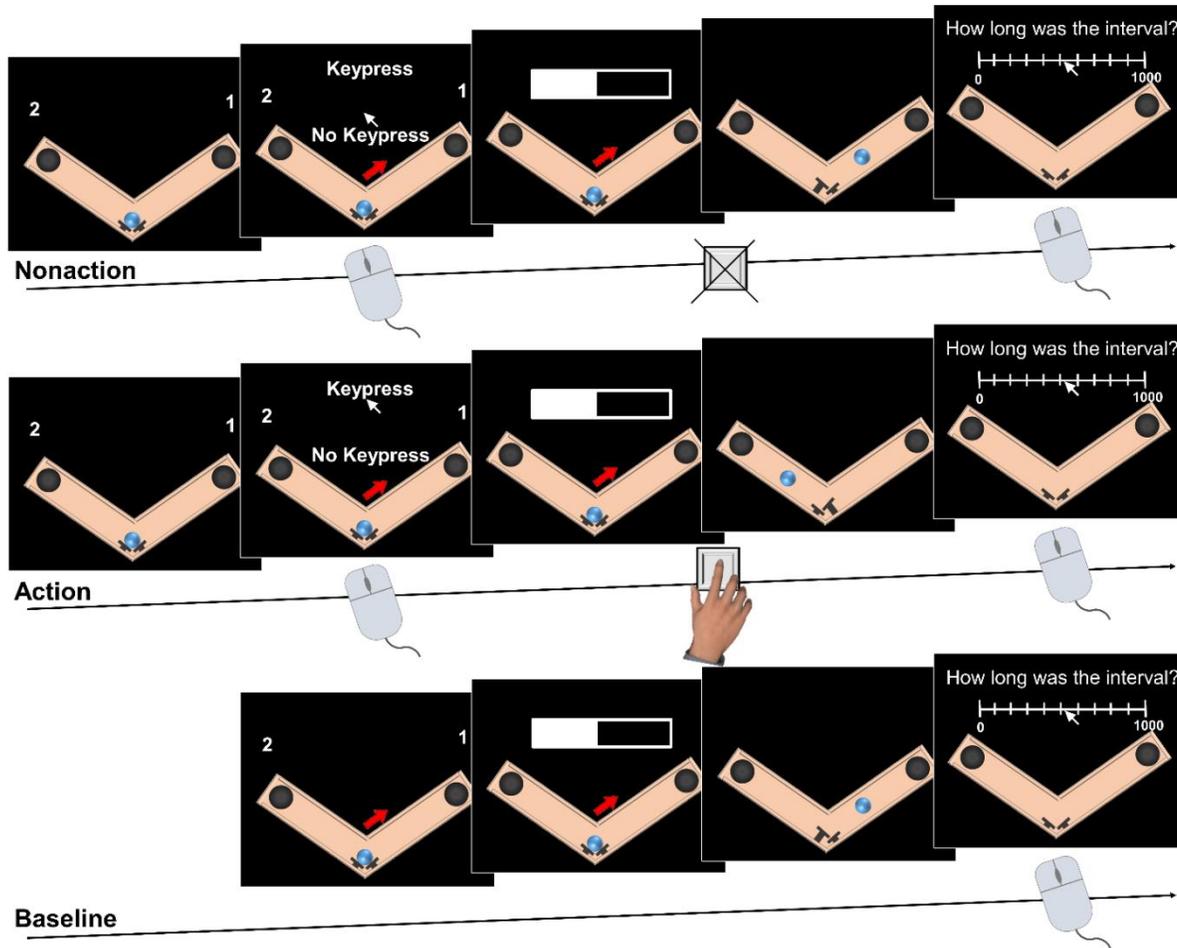
Baseline condition



Temporal binding



Replications ($N_{Exp. 3A}=34$; $N_{Exp. 3B}=40$)



Conclusions

- Deliberate non-actions evoke agency not only on subjective but also on implicit measures (temporal binding).
- ?
▪ The degree of agency for non-actions and their consequences is consistently lower than for actions.



Relations

- **„The action effect“** (Kahneman & Tversky, 1982): More regret for negative outcomes of an action as compared to negative outcomes of inactivity (at least on short timescales)
- **„Principles of harm“** for moral decisions (Cushman et al., 2006; Greene et al., 2009): Harm caused by action is worse than harm caused by omission

Temporal vs. intentional binding

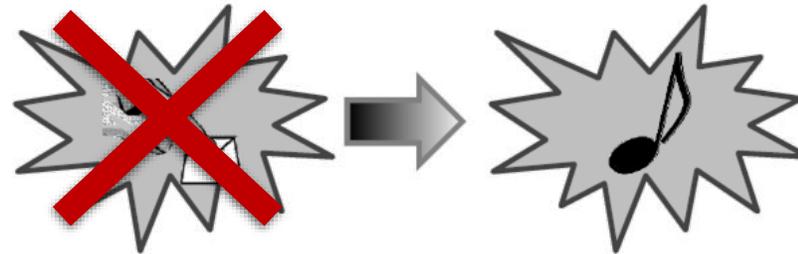
- Early interpretations: Temporal attraction between action and effect reflects „intentional binding“ of a willed action and its outcome (Haggard et al., 2002)
- Emerging consensus: Intentions do not determine temporal binding in typical experimental setups (e.g., Kirsch, Kunde, & Herbert, 2019)
- Current setup: Only intention differs between non-actions and baseline trials!

Onwards

Action planning and initiation:

Response-effect learning
(e.g., Elsner & Hommel, 2001;
Kühn et al., 2009)

Response-effect compatibility
(e.g., Kunde, 2001; Pfister &
Kunde, 2013)



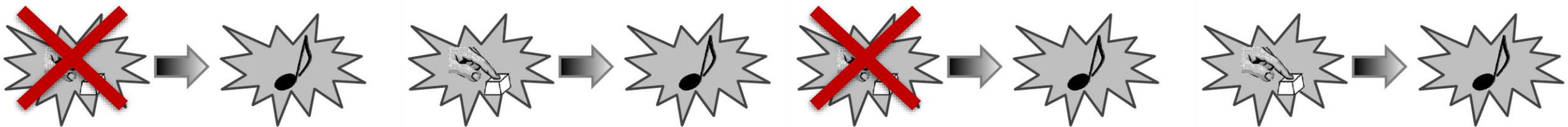
Perception in action:

Sensory attenuation
(e.g., Weiss et al. 2011;
Schwarz et al., 2018)

Agency & temporal binding
(e.g., Haggard et al., 2002;
Ruess et al., 2017)

Thank you!

Weller, L., Schwarz, K. A., Kunde, W., & Pfister, R. (in press).
Something from nothing: Agency for deliberate non-actions.
Cognition.



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