





*HOW FREE IS
OUR WILL?*

- Why are we here instead doing something else?
- Could we haven done other?
- But could we also have decided to do other?



WHAT IS FREE WILL?

- Wide definition: “Free will is the variety of control distinctively required for agents to be morally responsible” (Vargas, 2011)
- Narrow definition (Walter, 2001):
 1. The ability to do otherwise
 2. The control over one’s choices
 3. Responsiveness to reasons

EXPERIMENTS ON FREE WILL

- Libet (1985): a neuronal Readiness Potential (RP) occurs before the decision gets conscious
- Wendt-Kirsche & Goschke (2004): unconscious prime stimuli predetermine decision-making if they are goal-congruent
- Goschke (2000): impairment in capability to change between non-automatic tasks if verbal self-instruction is interfered
- Wegner & Wheatley (1999): control illusion in primed action task with a second person (as confederate)

EXPERIMENTS ON FREE WILL

- Bargh et al. (1996): priming effect in college students of old-age connotated words walk undeliberated slower
- Buzsáki (2006): brain oscillation of cerebral cortices influences perception
- Gollwitzer (1999): implementation intentions on breast self-examination - 100% vs. 53% (control group)
- Gollwitzer & Sheeran (2006): implementation intentions on writing a resume for a job after addiction - 80% vs. 0% (control group)
- Gerlach et al. (2018): personality trait scale based on over 1.5 million participants to developed to measure 4 robust personality clusters: average personalities, reserved personalities, role model personalities, and self-centered personalities

CONCLUSION?

PARADIGMS IN COGNITIVE SCIENCES

Determinism	Indeterminism
<ul style="list-style-type: none"><li data-bbox="165 468 1217 686">• Classic determinism: „[Determinism] can be taken to state that the initial conditions of the world and the laws of physics influence every single state of the universe at every subsequent instant, including therefore everything related to the human being as a physical entity.“ (Lavazza, 2019)<li data-bbox="165 762 1217 939">• Epiphenomenalism: “Epiphenomenalism is the thesis that seemingly causally relevant conscious processes, such as intention formation or decisions, do not play any active causal role in the production of the correspondent action.” (Lavazza, 2019)<li data-bbox="165 1011 1217 1315">• Compatibilism: “The freedom of the act of will, which is expressed in its independence from the impulses from the immediate situation, means that a person's behavior is not directly determined by his immediate environment, but of course it in no way means that it is at all is not determined. Voluntary actions are no less determined and lawful than involuntary... movements. Their lawfulness and determination are just of a different kind” (Rubinstein, 1984)	<ul style="list-style-type: none"><li data-bbox="1263 468 2321 825">• Libertarianism: On an event-causal libertarian picture, the relevant causal conditions antecedent to the decision, i.e., the occurrence of certain agent-involving events, do not settle whether the decision will occur, but only render the occurrence of the decision about 50% probable. In fact, because no occurrence of antecedent events settles whether the decision will occur, and only antecedent events are causally relevant, nothing settles whether the decision will occur.” (Pereboom 2014)

- Goschke, T. (2004). Vom freien Willen zur Selbstdetermination. *Psychologische Rundschau*, 55(4), 186–197. <https://doi.org/10.1026/0033-3042.55.4.186>
- Lavazza, A. (2019). Why Cognitive Sciences Do Not Prove That Free Will Is an Epiphenomenon. *Frontiers in Psychology*, 10, 326. <https://doi.org/10.3389/fpsyg.2019.00326>
- O'Connor, Timothy and Christopher Franklin, "Free Will", *The Stanford Encyclopedia of Philosophy (Winter 2022 Edition)*, Edward N. Zalta & Uri Nodelman (eds.), URL = <https://plato.stanford.edu/archives/win2022/entries/freewill/>.