

Location wise

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Chapter 7

Summary of findings

In this dissertation, I set out to explore human behavior and thought processes with regard to (forced) changes in location decisions. I uncover the choice processes and choice consequences, as well as their evaluations. Moreover, I investigate the matter in which we evaluate our location choices. Throughout this dissertation, I use the pandemic as background, but my results are not limited to this context. It merely utilizes the necessity and novelty of the decision before us. Using that context, I find insights into how people deal with completely novel yet forceful policies, work from home, and how they (re)connect with risky social networks.

Chapter 2 examines how people decide to a decision to go out when the policy recommendation is to “avoid crowded places”. Specifically, I look at the effect of context on the decision to visit a hypothetical recreational hotspot. I hypothesize that the absence of relevant up-to-date information about crowdedness will force individuals to make a decision based on unrelated information making it susceptible to biased reasoning. Using an experimental design, I show that people use expectations of others to influence their own decision: people go out when they expect to avoid crowded spots and when they expect others to go. The results suggest that in the former situation people act strategically, and in the latter social norms lead to escalation. “Use your common sense” is often the accompanying advice, but I show that more and better information concerning the context is essential to enable us to make optimal decisions for ourselves, and for society.

Chapter 3 has two distinct contributions to productivity research. First, I revise and validate a new Work Productivity and Stress Questionnaire (WPSQ) based on an older and less stable questionnaire. I show that the WPSQ factors outperform the older questionnaire on a large sample based on internal consistency and reliability on two measurement periods. I also show that single-item scale alternatives highly correlate with the subfactor productivity and stress (and irritability). Substituting the WPSQ factors with these single-scale alternatives should be

done with caution and only when brevity demands it. Second, when I apply the WPSQ to working from home, I investigate trends over time in a volatile pandemic-ridden context. I argue that retrospective reports on work productivity and stress are strongly influenced by the current state. Specifically, the current state during the measurement structurally predicts the retrospective scores more than the targeted scores they aim to recollect. As a result, relying on retrospective scoring is subject to a recall bias and the current reference point should be taken into account.

Chapter 4 discusses to what extent satisfaction with home office hardware and the indoor environment influence productivity and burnout propensity during working from home (WFH). First, I find that self-reported productivity is higher at work compared to working from home. Second, participants prefer the indoor environment (e.g. temperature, air quality, lighting) at home over the environment in the work office, but prefer the work office hardware (e.g. screen, chair, Wi-Fi). Third, higher satisfaction with home environment factors significantly predicts increased productivity and decreased burnout propensity. Fourth, I connect real behavior with satisfaction scores and productivity. Increasing the amount of time spent in a ventilated room during working hours increases productivity and the willingness to continue WFH, whilst decreasing burnout propensity. This effect is fully mediated by satisfaction with the home office factors. Finally, I provide a strong case to emphasize actual measurement over self-reported satisfaction measurement. Ventilation influences related as well as unrelated factors' satisfaction scores. Consequently, satisfaction with unrelated aspects of the office, and thus WFH success, can be influenced (and improved) by seemingly unrelated actions such as increasing office ventilation. Taken together, this chapter shows that the physical climate in the home office influences the success of WFH.

Chapter 5 assesses the effect of indoor climate factors on human performance, focusing on the impact of indoor temperature on decision processes. Specifically, I expect heat to negatively influence higher cognitive rational processes, forcing people to rely more on intuitive shortcuts. In a laboratory setting, participants (N=257) were exposed to a controlled physical environment with either a hot temperature (28°C) or a neutral temperature (22°C), in which a battery of validated tests was conducted. I find that heat exposure did not lead to a difference in decision quality. I did find evidence for a strong gender difference in self-report, such that only men expect that high temperature leads to a significant decline in performance, which does in fact not materialize. These results cast doubt on the validity of self-report as a proxy for performance under different indoor climate conditions.

Chapter 6 uncovers how individuals perceive risk and spread through networks. I question whether individuals perceive some network structures as riskier than others. Since network spread can be relatively complex, I investigate whether humans' evaluation of the risk of COVID-19 spread through social networks is based on complex computations or whether it depends on (more) easily observed characteristics of these networks. I find that the perceived risk is not solely based on the objective probability of risk: easily assessable physical characteristics have stronger predictive values than the objective probability. This is in line with the theory of bounded rationality, where people are rationally motivated to optimize the problem, but limited mental capacity hampers or prevents them. The implications of this paper are not restricted to disease contagion. Physical characteristics could also partially predict the perceived spread in social networks such as reputation and fame in individual networks, or innovation or information in business networks.

Together, this dissertation contributes to a deeper understanding of how people make decisions in rapidly introduced, novel environments. I use experimental and data-driven evidence to unravel decisional processes, evaluations, and preferences during forced (re)location, often under uncertainty. I find evidence of both strategic and gut-feeling decision-making. In some contexts, these strategies flourish, and in others they underperform. Likewise, self-reported satisfaction or impact evaluations are often biased. The hidden common denominator throughout this dissertation is the novelty of the context. This novelty forces people to make a new assessment, with limited relevance of past experiences. The expectations or past experiences paint the evaluations and reflections, resulting in inaccuracy. Self-reported introspection and retrospection are at risk of being deceptive informants of internal decision processes and consequences in these novel decision problems.