A Comprehensive Review of Nudge Techniques: Overview, Methodological Concerns and an Annotated Bibliography

In this research, we present a domain-general scoping review of the peer-reviewed empirical choice architecture studies. By this, first, we provide an overview of the characteristics of the interventions and experimental designs employed in the nudge literature. Second, we show that previously found domain-specific deficiencies (e.g., Bucher et al. 2016) are characteristic of the whole nudge movement and we identify the most essential obstacles which hold back the evidence accumulation of the field. Finally, we present an annotated bibliography of the choice architecture literature.

Methods

Figure 1. Flow chart of the systematic review process

- Scopus n=2311
- PubMed n=83
- PubPsych n=15

- Initial search n=2409
- Abstract b. exclusion n=1504
- Retrievied for full text review n=892
- Met exclusion criteria n=785
- Included from reviews n=10
- Final number of articles n=107

Inclusion criteria:
1. Full text papers
2. English language
3. Peer-reviewed
4. Empirical
5. With behavioral outcome variables

- 107 empirical articles
- 138 studies
- 380+ tested interventions

Overview of the results

- Growing number of studies each year
- Distribution along 9 intervention categories 8 domains (74 subdomains)
- Moderators and contexts summarized for each intervention type
- 58% of the studies are field experiments (M_n=2782); 37% lab studies with hypothetical choice (M_n=484), 15% lab studies involving real choice (M_n=185)

Main Motivation of the studies

- 81% Applicability in a given context
- 9% Mediators
- 9% Moderators
- 1% Other

Sucess-rate of interventions

- 83% Successful interventions
- 17% Failed interventions

Overview of the methodological concerns

- Poor connections to general theories: the focus is rather on the assessment of applicability
- Questionable experimental and reporting practices: seemingly ad-hoc sample sizes, no preregistration etc.
- Lack of interest in failures: 83% of reported choice architecture intervention were successful, no study without a successful intervention
- Divergent nomenclatures, non-systematic development, different approaches, weak embeddedness into the broader field of behavioral interventions

Annotated Bibliography

To support future researchers and practitioners in their endeavor of developing choice architecture interventions and of designing effective interventions, an easily searchable annotated bibliography was created. This database contains information on the 138 study from our database showing

Year, Journal, Domain, Subdomain, Intervention, Location, N of participants, N of intervention tests in the study, N of failed interventions, Moderators, Main motivation, Pilot, Follow up, and a Short description of the desired behavior, the intervention used and the results of the study.

References

