



Perspective

# The implicit role of perceived barriers and benefits in decision-making theories

Sara Pourrazavi<sup>1</sup> , Hamid Allahverdipour<sup>1,2\*</sup>

<sup>1</sup>Research Center of Psychiatry and Behavioral Sciences, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>2</sup>Health Education & Promotion Department, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran

\*Corresponding Author: Hamid Allahverdipour, Email: [Allahverdipourh@tbzmed.ac.ir](mailto:Allahverdipourh@tbzmed.ac.ir)

## Abstract

Emerging evidence indicates that perceived barriers and benefits frequently operate subconsciously, shaped by cognitive heuristics, biases, and affective processes, functioning as contextual variables. This prompts a critical question: Are they fundamental to behavioral theories, or can they be conceptualized as implicit constructs and contextual factors without weakening theoretical robustness? Framing perceived barriers and benefits within broader heuristic frameworks as contextual elements may streamline models, enhance their adaptability across diverse contexts, and preserve theoretical integrity.

**Keywords:** Behavior, Perceived barriers, Perceived benefits, Theories

Received: January 7, 2025, Revised: February 15, 2025, Accepted: February 16, 2025, ePublished: March 17, 2025

## Introduction

Decision-making theories have historically emphasized perceived barriers and benefits as critical determinants influencing human behavior.<sup>1,2</sup> However, emerging evidence indicates that these variables frequently operate at a subconscious level, modulated by cognitive heuristics, biases, and affective processes.<sup>3,4</sup> This evolving understanding prompts a compelling inquiry: Are perceived barriers and benefits indispensable components of behavioral theories, or can they be conceptualized as implicit constructs without undermining the theoretical frameworks' robustness? Addressing this question necessitates a nuanced examination of the interplay between conscious and subconscious mechanisms in shaping decision-making processes.

## Evidence supporting implicit integration

Research on dual-process theories of reasoning<sup>3,5</sup> delineates two distinct systems governing human decision-making: the intuitive, subconscious System 1 and the deliberate, conscious System 2. Although perceived barriers and benefits may ostensibly arise from conscious deliberation, they are frequently processed through System 1 as heuristic-driven, automatic judgments. For example, the availability bias—a cognitive heuristic wherein individuals assess the likelihood of events based on the ease with which similar instances come to mind—can lead to the overemphasis of perceived barriers or benefits without conscious recognition.<sup>6</sup>

Behavioral economics provides further empirical support for this perspective. Thaler and Sunstein's<sup>7</sup>

seminal work on “nudges” illustrates that subtle contextual modifications can significantly influence decision-making by circumventing perceived barriers, often without necessitating explicit cognitive engagement. A notable example is the implementation of automatic enrollment in retirement savings plans, which has been demonstrated to markedly increase participation rates, irrespective of individuals' stated barriers.<sup>8</sup> This evidence suggests that perceived barriers are not invariably the product of deliberate, System 2-driven thought processes but may instead emerge from implicit, System 1-mediated mechanisms.

## Implications for behavioral theories

Frameworks such as the Theory of Planned Behavior<sup>1</sup> and the Health Belief Model<sup>2</sup> have effectively explained behavior by integrating perceived barriers and benefits as mediating variables. However, generalizing these constructs under broader principles of cognitive processing or heuristic influences may streamline these models without significantly compromising their predictive power. For instance, a meta-analysis conducted by Armitage and Conner<sup>9</sup> demonstrated that while perceived barriers and benefits enhance predictive accuracy, their explanatory contribution diminishes when accounting for higher-order constructs, such as perceived behavioral control and subjective norms.

Removing explicit references to perceived barriers and benefits could enhance the adaptability of these theories across diverse contexts. In cross-cultural research, where subjective perceptions of barriers and benefits may vary



considerably, emphasizing overarching constructs—such as behavioral intention or normative beliefs—could improve the universality and applicability of these models.<sup>10</sup> This approach would allow for greater flexibility in addressing cultural and contextual differences while maintaining the theoretical integrity and predictive utility of these frameworks.

### Practical benefits of simplification

Simplifying decision-making theories by generalizing perceived barriers and benefits can enhance their applicability while preserving theoretical nuance. For example, public health interventions aimed at reducing vaccination hesitancy may achieve greater efficacy by modifying structural or environmental cues rather than directly addressing individual perceived barriers.<sup>11</sup> This evidence underscores that, although constructs such as perceived barriers and benefits hold value, their explicit inclusion in theoretical frameworks may not be indispensable for achieving practical outcomes. Instead, focusing on broader contextual factors can provide a more versatile and impactful approach to behavior change.

### Conclusion

The evidence presented suggests that while perceived barriers and benefits have historically been conceptualized as distinct mediators within decision-making theories, they predominantly operate through implicit cognitive processes. Consequently, we argue that these constructs can be effectively subsumed under broader heuristic frameworks without undermining the theoretical integrity of behavioral models. This approach simplifies the models and enhances their adaptability across diverse contexts. Future research should aim to further elucidate the scope of their influence and explore the practical implications of integrating these constructs implicitly into decision-making frameworks. Such investigations could provide valuable insights into optimizing theoretical models for real-world applications.

### Authors' Contribution

**Conceptualization:** Sara Pourrazavi, Hamid Allahverdipour.

**Data analysis:** Sara Pourrazavi, Hamid Allahverdipour.

**Formal analysis:** Sara Pourrazavi, Hamid Allahverdipour.

**Funding acquisition:** Sara Pourrazavi, Hamid Allahverdipour.

**Investigation:** Sara Pourrazavi, Hamid Allahverdipour.

**Methodology:** Sara Pourrazavi.

**Project administration:** Sara Pourrazavi.

**Resources:** Sara Pourrazavi, Hamid Allahverdipour.

**Software:** Sara Pourrazavi.

**Supervision:** Hamid Allahverdipour.

**Validation:** Sara Pourrazavi, Hamid Allahverdipour.

**Visualization:** Sara Pourrazavi, Hamid Allahverdipour.

**Writing—original draft:** Sara Pourrazavi, Hamid Allahverdipour.

### Competing Interests

None.

### Ethical Approval

Not applicable.

### Funding

Not applicable.

### References

1. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decis Process*. 1991;50(2):179-211. doi: [10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t).
2. Rosenstock IM. The health belief model and preventive health behavior. *Health Educ Monogr*. 1974;2(4):354-86. doi: [10.1177/109019817400200405](https://doi.org/10.1177/109019817400200405).
3. Kahneman D. *Thinking, Fast and Slow*. Farrar, Straus and Giroux; 2013.
4. Slovic P, Finucane ML, Peters E, MacGregor DG. The affect heuristic. *Eur J Oper Res*. 2007;177(3):1333-52. doi: [10.1016/j.ejor.2005.04.006](https://doi.org/10.1016/j.ejor.2005.04.006).
5. Evans JS, Stanovich KE. Dual-process theories of higher cognition: advancing the debate. *Perspect Psychol Sci*. 2013;8(3):223-41. doi: [10.1177/1745691612460685](https://doi.org/10.1177/1745691612460685).
6. Tversky A, Kahneman D. Availability: a heuristic for judging frequency and probability. *Cogn Psychol*. 1973;5(2):207-32. doi: [10.1016/0010-0285\(73\)90033-9](https://doi.org/10.1016/0010-0285(73)90033-9).
7. Thaler R, Sunstein C. *Nudge: Improving Decisions About Health, Wealth and Happiness*. Penguin Books; 2009.
8. Madrian BC, Shea DF. The power of suggestion: inertia in 401(k) participation and savings behavior. *Q J Econ*. 2001;116(4):1149-87. doi: [10.1162/003355301753265543](https://doi.org/10.1162/003355301753265543).
9. Armitage CJ, Conner M. Efficacy of the theory of planned behaviour: a meta-analytic review. *Br J Soc Psychol*. 2001;40(Pt 4):471-99. doi: [10.1348/014466601164939](https://doi.org/10.1348/014466601164939).
10. Schwartz SH, Melech G, Lehmann A, Burgess S, Harris M, Owens V. Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *J Cross Cult Psychol*. 2001;32(5):519-42. doi: [10.1177/0022022101032005001](https://doi.org/10.1177/0022022101032005001).
11. Brewer NT, Chapman GB, Rothman AJ, Leask J, Kempe A. Increasing vaccination: putting psychological science into action. *Psychol Sci Public Interest*. 2017;18(3):149-207. doi: [10.1177/1529100618760521](https://doi.org/10.1177/1529100618760521).