

The Compromise Effect across Domains: Healthy Food, Healthcare, and Charity

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Abstract: The compromise effect refers to a phenomenon where when an option becomes the middle option in a choice set, it will be more attractive. While most current studies have focused on the consumption field, there is little further analysis and comparison under different contexts. This paper extends the discussion to more scenarios: healthy food consumption, healthcare decisions, and charitable donations to explore and compare the conditions and manifestations of the compromise effect across three distinct domains. This paper uses two research methods: literature review and secondary data analysis. The collected materials cover transaction data on healthy food consumption, healthcare decision surveys, and charitable donation experiment results. It was found that the compromise effect was present in all three scenarios, but with different characteristics and manifestations. It is worth pointing out that the uncompromise effect has been observed in the charitable donation scenario because of the customized option. These findings challenge the past views of rational choice theories and demonstrate that the compromise effect presents differently based on the contexts.

Keywords: compromise effect; trade off contrast; uncompromise effect

1. Introduction

The compromise effect refers to a situation where the option that becomes the middle one will be more attractive to consumers in a choice set. After Simonson's 1989 study, this concept has been widely accepted and used in behavioral economics [1]. Existing research tends to focus on the compromise effect in low-risk, normal consumption scenarios, while little is known about how it manifests in high-risk decision-making processes such as healthcare decisions and charitable donations. Furthermore, deeper discussion of factors that drive the effect and comparison of different manifestations of the compromise effect in various scenarios are lacking. This paper examines the compromise effect across three distinct domains: healthy food consumption, healthcare decisions, and charitable donations.

To be specific, this study investigates several questions: What are the characteristics of the compromise effect under each context? Is there any difference of manifestation between the presentation of it in low-risk and high-risk scenarios? What are the factors that result in the difference?

These questions will be investigated using methods of literature review and secondary data analysis.

The research helps clarify the conditions of compromise effect, reveals the situational dependence of preference construction, and offers practical suggestions for choice architecture in menu planning, medical selection, and fundraising campaigns.

2. The Compromise Effect in Healthy Food Consumption

The compromise effect is widely observed in healthy food consumption. There are usually three tiers of meals with different degrees of attributes: a low-end set with small size and normal ingredients, a mid-range set with healthier ingredients and extra services, and a high-end set with luxurious dishes and limited supply. As consumers are not familiar with the food, they are most likely to choose the middle option.

2.1. *The Characteristics of Healthy Food Consumption*

There are several characteristics to help us understand the compromise effect under this scenario. First, there is information failure. The ingredients and calories rating in the label can only tell consumers scientific data, whereas the cooking process is hidden, which means it is hard to know how sellers use these ingredients. Therefore, sellers hold more information than consumers do about the product. The second point is the time limit: consumers need to make trade offs between multiple attributes such as taste, price, or nutrition within a very short time. This characteristic prevents consumers from deeper thinking, resulting in a higher tendency towards the middle option. Finally, the social attributes of catering scenarios are also significant. The middle option serves as a safe and moderate option, which avoids possible criticism and is more socially acceptable.

2.2. *Choi & Kim Study with Poke Bowls*

The study on the compromise effect in healthy food consumption was conducted by Choi & Kim. They used poke bowls as experimental stimuli and evaluated how the way people think affects their choice in healthy food [2].

The study invited 305 French consumers. The researchers first tested the thinking styles among these participants by using the Navon task. In the Navon task, large letters are composed of small letters. Participants who focused on small letters were categorized as analytic thinkers, and those who focused on large letters were categorized as holistic thinkers. Then, participants saw three options of Poke Bowl with different calorie content and sensory quality (taste). In the first condition, consumers saw two options: Option A with calorie content 200 and taste rating 6 and Option B with calorie content 245 and taste 7.5. In the second condition, the additional Option C with calorie content 290 and taste 9 was added. Therefore, the original Option B became the compromise option, offering medium performance in both attributes.

The result showed that the compromise effect was obvious among holistic participants: their purchase intentions significantly increased in the second condition compared to the first condition, from 11.17 euros to 13.46 euros. By contrast, analytical thinkers showed no significant compromise effect across conditions.

Therefore, it can be concluded that the compromise effect in healthy food consumption scenarios depends on the thinking style of consumers.

3. The Compromise Effect in Healthcare Decision

The healthcare decision is also an important area in the study of compromise effect since it has involved profound uncertainty in decision making. The companies usually provide three tiers of healthcare services with different levels of treatment intensity, medicine quality, or insurance plans. For instance, there are usually three levels of products in a dental treatment, each including different levels of treatment intensity, medicine quality, and possible risks. In most cases, the consumer will choose the middle option, and this makes the dental treatment a better area for studying the compromise effect.

3.1. *The Characteristics of the Healthcare Decision Scenarios*

The context of healthcare decision is much more complicated than that of the catering scenarios for several reasons. First, healthcare selection is risky because it has significant and long-lasting consequences, while catering decision is momentary. The amount of money paid by consumers could reach thousands of dollars, and the treatment can directly influence one's physical and mental state, living quality, or even life expectancy. In this context, consumers act as stakeholders and may hence compare the options carefully instead of making

hasty decisions. Second, consumers also face high levels of uncertainty. Such uncertainty comes in multiple forms and information complexity is another factor. When purchasing healthcare products (such as health insurance), the consumers need to consider complex attributes: cost, time duration, possible outcome, long-term influences and risks, all of which prolong the decision-making time. Finally, the social and professional influences of healthcare decision-making are very strong. Because of the complexity of medical problems, consumers may tend to seek professional guidance or family members' advice, adding more uncertain factors to the decision.

3.2. *The Chick, Hawkins, and Soberman's Study*

The most direct evidence of the presence of compromise effect in healthcare decision is an experiment conducted by Chick, Hawkins, and Soberman [3].

The researchers wanted to examine how unpacking detailed information about health insurance may affect the decisions made by young people who are working for the first time. They proposed four possible hypotheses (H1~H4):

H1: *Information overload may lead to confusion.*

H2: *Information evokes the perception of risks.*

H3: *Information is not pertinent (especially for elderly people).*

H4: *Information increases uncertainty in decision making.*

They invited 241 undergraduate students (120 from Toronto and 121 from Paris) of aged 18–30 (participants from Paris had a higher average age than those from Toronto). Participants were required to imagine themselves as new employees working in Chicago and need to choose a healthcare insurance plan covering Physician Care, Clinical Care, Hospital Care, and Dental Care. And they were randomly assigned to each of the following conditions:

Low Detailed Condition: for which the participants only received basic labels (e.g., “Physician Care”).

High Detailed Condition: for which participants received unpacking information, such as specific examples of treatment procedures (e.g., The unpacking of diagnostic tests includes: blood tests, EKG, ultrasound, X-ray, CT, MRI, etc.).

The researchers observed the proportion of three levels of coverage—the Basic (lowest coverage and high out-of-pocket), the Enhanced (middle coverage and middle out-of-pocket), and the Superior (highest coverage and highest out-of-pocket). Notably, all three plans had identical total costs, and they differed only in associated risks. The key findings of the study show how the compromise effect plays an important role in healthcare decision-making. First, Hypothesis 4 was supported by the results. It was shown that more participants had shifted their choices towards the Enhanced option as the information became highly detailed. Under the high detailed condition, it was shown that the uncertainty increased as people adjusted their estimated number of claims. The prediction of the estimated number of claims may increase the decision ambiguity and hence motivate people to choose the middle option, which directly supports the compromise effect. Second, Hypotheses 1, 2, and 3 were not supported by the results. Finally, the difference between areas was also found: the proportion of participants choosing the Superior option is higher. The study discussed the nationality as a factor influencing people's appetite for uncertainty.

4. The Compromise Effect in Charitable Donation

The charitable donation is a scenario that is completely different from the catering consumption and healthcare decision, because it presents a condition where people display altruistic behavior rather than pursue self-interest.

In real-life practice, there are usually three options of “suggested donation amounts” (e.g., \$20, \$50, and \$100). It's shown by the study that people usually choose the middle amount, which indicates that the compromise effect still plays an important role even in decision-making process under the altruistic contexts.

4.1. The Characteristics of Charitable Donation

The most remarkable feature of charitable donation is altruism, which distinguishes it from catering consumption and healthcare decision-making. This reflects that the option chosen by individuals won't directly influence their own benefits, but are closely related to their social images. Second, charitable donation has high transparency, which means that the amount of donation is revealed on the social platform. Therefore, social pressure discourages people from donating excessively small or large sums. The middle option will hence become the most suitable option since it tends to be moderate but not extreme. Finally, the implied value of donation is ambiguous or even non-existent. The amount that a donor pays does not differ in essence—a higher donation does not always mean better services. Thus, it is hard to compare the options and their returns.

4.2. Ekstrom's "the (un) Compromise Effect" Study

The evidence of the presence of compromise effect in charitable donation comes from the experiment that Ekstrom designed in 2020 [4]. Ekstrom collaborated with a fund-raising campaign that operated in a large hospital in America and randomly assigned 63,494 participants to three experimental groups: Baseline group, Compromise group, and Uncompromise group. The Baseline group adhered to the original setting while the Compromise group and the Uncompromise group are set as two experimental treatments (as shown in Table 1).

Table 1. Experimental Design of Ekström Donation Study [4].

Baseline group	\$10, \$50, \$100, \$__ (other amounts are free to fill in)
Compromise group	\$10, \$50, \$100, \$250, \$500, \$__
Uncompromise group	\$10, \$500, \$__

There are three key findings. First, in the Compromise group, where \$100 became the middle option, the share of those giving \$100 was almost three times higher than in the Baseline group. This directly reflects the compromise effect in charitable donation. Second, when there was no middle option, as shown in the Uncompromise group, the popularity of extreme options did not increase. Rather, people would tend to make up a middle option. For instance, in the Uncompromise group, people did not pick the \$10 or \$500, but used the write-in box to give amounts like \$100. Another finding is that donation rates increased in both treatment settings, where the Compromise and Uncompromise groups were nearly twice as high compared to the Baseline group. Revenue per letter also increased.

5. Discussion

The compromise effect operates consistently throughout three domains, but there are a few differences. The mechanisms for each scenario are varied: the asymmetric information and time limitation are the main drivers in healthy food consumption; the high risk and high uncertainty will influence consumers in healthcare decision; in charitable donation, social appropriateness is the biggest factor. It is worth mentioning that the catering consumption and healthcare decision-making are both purchasing behaviors driven by self-interest. However, the charitable donation has an altruistic characteristic.

The studies below provide some lessons for three key fields in the practical settings.

The study of compromise effect in healthy food consumption has inspired the way in which food sellers organized and exposed their information. For instance, the purchase environment should be able to encourage holistic thinking rather than analytic thinking. Moreover, merchants can set three product tiers with a distinct middle alternative. Each option should have clear differentiations, and the compromise choice should deliver balanced calorie intake and taste experience.

In healthcare, the mid-range product does gain the biggest focus. However, most patients may choose a safe option rather than one that really fits their needs, which leads to poor decision-making. It will be better off if healthcare institutions provide information in a more organized and easy way, such as a comparison table, a clear summary, and personalized aid. This helps consumers evaluate the trade-offs between options more

efficiently, allowing them to choose a plan that fits their real situation and medical need rather than compromise. In the healthcare selection scenario, it is crucial to create an environment where all the information is clearly provided, since it is highly related to the consumer's health and future.

For charities, the middle option of suggested amount may have an influential effect on how much money is raised. It will be useful to set a target amount of donation and design the middle option based on the target. However, a high middle option may result in a loss of donors and lower overall donations. Therefore, it will be better for charities to design their options through investigations. The custom option is also very important for donors' decision-making, as it satisfies the needs of different donors. Therefore, the best design is to provide clear compromise option while maintaining the custom option.

6. Conclusions

This section will answer the questions raised at the beginning based on the analysis of study on three domains—healthy food consumption, healthcare decision-making, and charitable donation. In healthy food consumption, the compromise effect is significant and direct. Consumers need to overcome asymmetric information to strike a balance between healthiness and taste. At the same time, social stress and time limits will strengthen the effect of compromise. In healthcare selection, the compromise effect will be weaker, as patients prefer considering long-term effect and looking for expertise rather than simply choosing the middle plan. Finally, the compromise effect functions in a more complex and unique way within charitable donation. When a middle option is provided, it influences people's choices. If no explicit middle choice exists, donors will set a moderate amount via the custom input field, a phenomenon known as the uncompromise effect.

Therefore, the differences of compromise effect in low-risk and high-risk scenarios can also be concluded. In low-risk scenarios, people tend to rely on the compromise option since it is easy, time-saving, and the result is not risky. In contrast, consumers take deeper consideration in the high-risk scenarios, so the compromise effect is not significant.

This paper has several limitations that should be acknowledged. First, this study relies on second-hand analysis, so all conclusions are derived from existing research. Each original research has its own constraints in research methods and application scope. Future studies could operate original experiments to directly investigate the compromise effect. Moreover, this paper only presents the results of each experiment and makes simple comparisons. In the future studies, deeper comparisons could be made, and further analysis about differences in individuals is needed.

In conclusion, the compromise effect plays an important role in many of our decision-making scenarios. Nevertheless, there are differences in its operation and characteristics, depending on the risk level, decision time, and social attributes of distinct scenarios.

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