Self-Generated Choice Overload: A study to explore if the number of self-generated options influence the level of satisfaction when choosing for oneself or someone else.

Dolk, Isa

Universiteit Leiden

Faculteit der Sociale Wetenschappen

Self-Generated Choice Overload

A study to explore if the number of self-generated options influence the level of satisfaction when choosing for oneself or someone else.

Isa Serena Dolk

Master thesis Psychology, Economic and Consumer Psychology
Institute of Psychology
Faculty of Social and Behavioral Sciences – Leiden University

Date: 11/20/2023
Student number: s2518341
First examiner of the university: Marc Lluis Vives
Second examiner of the university: Ambra Brizi

Abstract

This study explores whether generating more options influences how satisfied people feel about their decisions, whether they are choosing for themselves or someone else. This is relevant because it provides insights into the complexity of consumer behavior, where factors such as the variability in the number of alternatives influence this decision-making process and the satisfaction of consumers. Participants were asked to respond to open-ended questions about various real-life situations where a choice had to be made. Subsequently, they selected their preferred option and rated their satisfaction with it. Surprisingly, the results showed no significant differences in satisfaction, regardless of having more or fewer options to choose from. Additionally, the placement of the chosen option in the list of all generated options made also no difference in satisfaction level. Furthermore, participants generated more options for someone else compared to for themselves. However, again in this condition, their satisfaction remained the same.

Layman's Abstract

When making life decisions, satisfaction with one's choice can vary. This study explores if this variation is linked to the number of options considerated. Additionally, we wanted to find out if the options one's thinking of first lead to a more satisfying decision compared to those considered later. Lastly, we investigated whether making decisions for yourself brings more happiness than deciding for someone else. To test this, we used a questionnaire asking people to generate as many options as they wanted in different scenarios, making choices for themselves or others. After listing all options, participants had to choose one and rate their satisfaction with it. Surprisingly, we found that people were satisfied with their decisions, regardless of the number of options, their order on the list, or whether the decisions were for themselves or others. The only notable difference was that people generated more options when deciding for someone else than for themselves.

Introduction

‘What do you want for dinner tonight?’ This is a question that is asked on a daily basis but is sometimes very hard to answer. Sometimes after you decide what to eat, you do not feel satisfied even though you had many choices that could match your preference at that moment. Could it be that more options lead to a less satisfied decision-maker?

People tend to believe that having more options to choose from is better (Reutskaja & Hogarth, 2009). However, in practice, when you have more options than desired, you could experience choice overload (Reutskaja et al., 2021). That is why, when it comes to deciding, individuals often prefer choosing from a smaller list of options (Reutskaja & Hogarth, 2009). In addition, Schaffrath et al. (2018) stated that people experience higher decision satisfaction when choosing from a small rather than a large number of options. Johns et al. (2013) investigated the ideal amount of options in a restaurant setting. Their study concluded that 6 options were the ideal amount for the quick service items and 7 to 10 for fine dining items.

There are different forms of options. You have the options that you get presented, for example, in a restaurant setting as during the study of Johns et al. (2013), but you also have situations that are more open-ended, which require us to generate options ourselves. Especially during situations where we ask ourselves ‘What could I do?’ (Kalis, Kaiser & Mojzisch, 2013). These last types of options require a decision-maker to generate the options and actually make a decision. Nevertheless, option generation in open-ended scenarios is still under-researched.

In various situations, we could generate a different amount of options. Option generation could be defined as the process that requires recall of possible actions that could be taken in consideration when we are at the point of making a decision (Kalis et al., 2013). Generated options arise from semantic memory retrieval processes such as the associative principle according to (Zhang et al., 2021). But also factors like memory, search behavior, and formation of consideration sets according to Aka and Bhatia (2021). Besides that, memory retrieval, automatic perception processes, and creative thought processes also come into play when generating options (Kalis et al., 2013). Bhatia (2019) showed that there is a strong tendency to semantic clustering. In the context of decision-making, it suggests that when people generate options, items that are thematically or conceptually related are more likely to be clustered together. This can influence the decision-making process as the consideration of one option may trigger the retrieval of related options. This effect diminishes while generating more options. Semantic clustering is important within this study due to its potential contribution to generating more options, which could result in choice overload.

Johnson & Raab (2013) suggested that strategies that result in less generated options will lead to better and more consistent decisions. During a decision-making process, we use our memory as well. First, we search for semantic memories that we can use to create our subjective preferences. Next, based on our subjective preferences, our final decision will be made (Zhang et al., 2021). According to Aka & Bhatia (2021) is this subjective preference also known as ‘desirability’. People might also experience regret over their decision when they evaluate whether the options they did not choose are what they desire more (Iyengar & DeVoe, 2003).

The relevance of this topic is that it could give insights into the complexity of consumer behavior in the real world in which factors such as variability of alternatives influence this decision-making process and satisfaction in consumers.

In all the previous situations you decided for yourself, but is there a difference in deciding for yourself compared to deciding for someone else? Lockwood et al. (2022) stated that people are less willing to exert effort for others than for oneself. Therefore, in this context, you could argue that people are willing to generate more options for themselves compared to generating options for someone else. However, the satisfaction of the actual choice that follows from the option generation is still underexplored.

Based on what is known from previous research and the topics that are still underexplored , the following hypothesis will be investigated;

Hypothesis 1: ‘The more options someone generates, the less satisfied they will be about their actual choice.’

Hypothesis 2: ‘Participants will experience higher satisfaction when their chosen option is generated earlier in the list while satisfaction is expected to decrease when the chosen option is generated later in the list.’

Hypothesis 3a: ‘People will generate more options for themselves than for someone else.’

Hypothesis 3b: ‘People will be more satisfied when making choices for someone else compared to making choices for themselves.’

Method

Design

In this study we employed a 2x2 experimental design, including a self-versus other condition and a time constraint condition (unlimited time versus time pressure). Nevertheless, this paper solely focused on whether the number of self-generated options influenced the level of satisfaction when choosing for yourself or somebody else. The self-versus other condition was tested with a between-subject design. This choice was driven by the consideration that a within-subject design might risk making the study's objectives too apparent to participants, potentially influencing their responses.

Participants

The research sample consisted of workers at Prolific from the United States of America. In total, there were 395 participants. After checking if the participants completed the attentional check at the end of the survey successfully, 10 participants were removed because they did not comply with this attentional test. 385 participants remained (Average age 29.94, SD = 5.66). The minimum age was 18 and the maximum age was 49. Before the experiment, informed consent was obtained from the participants. The participants were paid 2.00 pounds for participating. The Ethics Committee of Leiden University approved the study.

Measures

To test our hypotheses, a questionnaire was designed via Qualtrics. The questions contain different topics where a choice had to be made in order to answer the question. The topics were costumes, wedding gifts, snacks, and dating. To examine these topics, eight items were designed (See Appendix A). Since this was a between-subject design, these topics were asked in both self- and other-conditions so they were counterbalanced. Within these conditions, a couple of variables were tested. First, the number of generated options was measured by counting all the different options that the participant came up with. Besides that, the decision was mapped by looking at which number in the list became the most preferred option. Lastly, the satisfaction of the participants about their choice was measured on a 7-point Likert scale from 1= 'Extremely dissatisfied' to 7='Extremely satisfied'.

Procedure

First, the participants filled in the informed consent followed by the questions of the first part of the study. During the first part of this study, participants were presented with scenarios of other people needing help. The participants had to rate their willingness to help in each scenario. During the second part of the study, participants were presented with descriptions of real-life situations. The participants were asked to fill in open-ended questions where they had to generate as many options as they liked either for themselves or someone else (See Appendix A). Subsequently, they were asked to choose the one option they preferred the most from the list they had created and to rate their satisfaction with it. After they completed the whole task, they had to complete the General Anxiety

Disorder-7 (GAD7) questionnaire. The last questions were about the demographics where the participants were asked to fill in their age and gender. The participants were debriefed on the aims of the study and thanked for their participation.

Statistical analyses

To test our hypotheses, we performed analyses in SPSS. Hypothesis 1 and Hypothesis 2 were analysed with a Pearson Correlation. The correlations between the number of generated options and the level of satisfaction as well as the correlations between the chosen option and the level of satisfaction were analysed. Hypothesis 3a and 3b were tested with a paired sample t-test. The mean differences between number of generated options for oneself and generated options for someone else, as well as the mean differences between the self- and the other-condition were analysed.

Results

During the open-ended questions, participants had to generate as many options as they liked with a maximum of 20. On average over all conditions, participants generated 5.61 options and scored their satisfaction with a 6.10. This indicates that, on average, participants reported high levels of satisfaction. Participants also reported high levels of satisfaction in the self as well as in the other condition. In the self-condition, participants generated on average 5 options and scored their satisfaction with a 6.08. In the other condition, participants generated on average 6.22 options and scored their satisfaction with 6.12. Notably, participants in the other condition not only generated a slightly higher average number of options but also reported a slightly higher level of satisfaction than the other conditions. This suggests a potential link between the extent of self-generated options, the self- and other condition, and satisfaction, a relationship that we will further explore in the following analyses.

For the first Hypothesis, we investigated whether the amount of options generated is negatively correlated with the level of satisfaction. To examine this, a Pearson correlation was conducted on the average number of options generated and the average level of satisfaction. Overall, our analyses revealed no significant correlation between the average amount of options generated and the average level of satisfaction ($r=.032$, $p= .658$). Furthermore, the correlations between the average options generated and the average level of satisfaction in both the self-condition ($r = .110$, $p = .120$) and the other condition ($r = .026$, $p = .723$) were found to be non-significant. These findings suggest that, in contrast to our initial hypothesis, the number of generated options does not

demonstrate a significant relationship with either overall satisfaction levels or satisfaction within specific conditions.

For the second Hypothesis, we conducted another Pearson correlation, this time of the chosen option and satisfaction level. The results show no significant relationship between the chosen option and the level of satisfaction ($r = .028$, $p = .584$). This suggest that the level of satisfaction is not influenced by the positioning of the chosen option within the list.

For Hypothesis 3a, we conducted a paired sample t-test on the number of generated options in the self- and other conditions. The results revealed a significant difference in the number of generated options in the specific conditions. Participants generated a significantly higher average number of options for someone else ($M = 6.22$, $SD = 3.34$) compared to when generating options for themselves ($M = 4.99$, $SD = 2.77$), $t(190) = -3{,}764$, $p < .001$.

Moving to Hypothesis 3b, we performed another paired sample t-test, this time on the level of satisfaction in the self- and other conditions. The results revealed no significant difference in satisfaction levels between the self-condition ($M = 6.07$, $SD = .80$) and the other-condition ($M = 6.11$, $SD = .79$), $t(190) = -.569$, $p = .570$.

Discussion

The aim of this study was to investigate the impact of the number of generated options on individuals' satisfaction with their decisions, considering both self- and other-directed choices. This was examined by using a questionnaire with open-ended questions, simulating real-life decision-making scenarios.

We explored whether the quantity of generated option significantly influenced the satisfaction level. Contrary to our initial hypothesis, the findings revealed that the average number of generated options did not significantly influence the average level of satisfaction. In other words, whether individuals generated more or fewer options, did not significantly impact their satisfaction with the chosen option. Additionally, the relationship between satisfaction and the position of the chosen option within the list of generated options showed no significant correlation. This suggest that people reported similar levels of satisfaction regardless of whether they chose an option earlier or later in the list. Additionally, the relationship between satisfaction and the position of the chosen option within the list of generated options showed no significant correlation. This suggest that people reported similar levels of satisfaction regardless of whether they chose an option earlier or later in the list.

A possible explanation for these findings could be that the range in the number of generated options was not wide enough to observe a difference in satisfaction levels. Perhaps a maximum of 20 options remains clear and does not lead to an actual choice overload. Another possible explanation could be that, as shown by Bhatia (2019), individuals generate options that are linked to the option they prefer the most. It could be argued that the set of options shares similarities within all the options, and therefore,

satisfaction is consistently high, regardless of the number of options generated and the placement of the most desired option in the list.

Considering both self- and other-directed choices, contrasting with the findings of Lockwoord et al. (2022) we found that people generated more options when they had to make choices for someone else compared to when they had to make choices for themselves. However, their level of satisfaction with the chosen option did not differ significantly. Similar to the results of the first hypothesis, these findings once again demonstrate that, regardless of how many options someone generates, the satisfaction level remains the same even in this specific condition.

In conclusion, while the direct link between the number of generated options and decision satisfaction was not supported by our current findings, this study lays the groundwork for future studies into the factors that influence satisfaction in decision-making processes.

Limitations

There are some limitations to this study. During this study, the participants were required to self-report their answers, which only captures people's own subjective view of their behavior, not the underlying cognitive processes. It is important to measure these cognitive processes, as memory plays a significant role in decision making. Measuring cognitive processes could enhance the accuracy of the satisfaction question results. Furthermore, this study focuses on specific situations where self-generated choice overload could occur. However, due to the specificity of these situations, it is challenging to generalize these findings.

Implications

The relevance of this topic is that it gave insights into the complexity of consumer behavior in the real world where factors such as variability of alternatives influence this decision-making process and satisfaction in consumers when choosing for oneself or someone else. This specific condition is important and relevant because making choices for others could foster empathy, social relations, moral decision-making, and social responsibility.

Further research

In future research, it could be investigated at what point the number of self-generated options leads to choice overload. This exploration could begin by providing participants with unlimited space to generate all possible options, thereby obtaining a broader range that could stimulate choice overload.. Furthermore, the use of qualitative measures could improve this study. Utilizing methods such as interviews might help to understand the reasoning behind their choices and their level of satisfaction. Lastly, neurological measures could strengthen the argumentation of this results. These measures could explain the amount of cognitive load during the generation of options and during the decision making phase, and the desire towards the chosen option. For example, with EEG, electrical activity in the brain could be measured. Although EEG cannot directly measure desire and cognitive load, it can capture neural correlates associated with these concepts. The most effective way to conduct further research about self-generated choice overload is to combine the different types of measures mentioned.

References

Aka, A., & Bhatia, S. (2021). What I like is what I remember: memory modulation and preferential choice. *Journal of Experimental Psychology: General, 150*(10), 2175–2184. https://doi.org/10.1037/xge0001034

Bhatia, S. (2019). Semantic processes in preferential decision making. *Journal of Experimental Psychology: Learning, Memory and Cognition, 45*(4), 627–640. https://doi.org/10.1037/xlm0000618

Hutchinson, J. W., Raman, K., & Mantrala, M. K. (1994). Finding choice alternatives in memory: probability models of brand name recall. *Journal of Marketing Research, 31*(4), 441. https://doi.org/10.2307/3151875

Iyengar, S. S., & DeVoe, S. E. (2003). Rethinking the value of choice: Considering cultural mediators of intrinsic motivation. In V. Murphy-Berman & J. J. Jost (Eds.), The psychology of the social self (pp. 167-189). Psychology Press.

Johns, N., Edwards, J. E., & Hartwell, H. (2013). Menu Choice: Satisfaction or Overload? Journal of Culinary Science & Technology. https://doi.org/10.1080/15428052.2013.798564

Johnson, J., & Raab, M. (2003). Take the first: option-generation and resulting choices. *Organizational Behavior and Human Decision Processes, 91*(2), 215–229. https://doi.org/10.1016/s0749-5978(03)00027-x

Kalis, A., Kaiser, S., & Mojzisch, A. (2013). Why we should talk about option generation in decision-making research. *Frontiers in Psychology, 4*. https://doi.org/10.3389/fpsyg.2013.00555

Lockwood, P. L., Wittmann, M. K., Nili, H., Matsumoto-Ryan, M., Abdurahman, A., Cutler, J., Husain, M., & Apps, M. A. J. (2022). Distinct neural representations for prosocial and self-benefiting effort. *Current Biology, 32*(19), 4172-4185.e7. https://doi.org/10.1016/j.cub.2022.08.010

Reutskaja, E., Cheek, N. N., Iyengar, S. S., & Schwartz, B. (2021). Choice Deprivation, Choice Overload, and Satisfaction with Choices Across Six Nations. Journal of International Marketing, 30(3), 18–34. https://doi.org/10.1177/1069031x211073821

Reutskaja, E., & Hogarth, R. M. (2009). Satisfaction in choice as a function of the number of alternatives: When "goods satiate". Psychology & Marketing, 26(3), 197–203. https://doi.org/10.1002/mar.20268

Schaffrath, K., Wentzel, D., & Erkin, A. (2018). Purchasing for someone else in a b-to-b context: Joint effects of choice overload and accountability. Journal of Business-to-business Marketing, 25(1), 11–29. https://doi.org/10.1080/1051712x.2018.1424749

Zhang, Z., Wang, S., Good, M., Hristova, S., Kayser, A. S., & Hsu, M. (2021). Retrieval-constrained valuation: toward prediction of open-ended decisions. *Proceedings of*

the National Academy of Sciences of the United States of America, *118*(20). https://doi.org/10.1073/pnas.2022685118

Zhao, C., Shen, S., Li, Y., Liu, X., & Li, S. (2021). Effects of self–other decision-making on time-based intertemporal choice. Journal of Behavioral Decision Making. https://doi.org/10.1002/bdm.2248

Appendix A – Items per condition

Costume Topic – Self condition

“You have been invited to a costume party, and you have to choose a costume that you would like to wear.”

Costume Topic – Other condition

“Your friend has been invited to a costume party. They have to choose a costume that they would like to wear. They asked your help to decide which costume they could wear to the party.”

Wedding Gift Topic – Self Condition

“Your friend is going to marry soon and you are invited to their wedding.”

Wedding Gift Topic – Other Condition

“Your friend is invited to a wedding. They asked you for your help to decide which wedding gift they could bring to the wedding party.”

Snack Topic – Self Condition

"You are invited to a party, and every guest has to bring something to eat.”

Snack Topic – Other Condition

“Your friend is invited to a party, and every guest has to bring something to eat. They asked you for your help to decide which food to bring to the party.”

Date Topic – Self Condition

"You are planning a date for your anniversary with your significant other, and you want it to be special.”

Date Topic – Other condition

"Your friend is planning a date for their anniversary with their significant other, and they want it to be special. They asked you for your help to decide on a date planning."