

1. Redden, Joseph P. (2008), "Reducing Satiation: The Role of Categorization Level," *Journal of Consumer Research*, 34(5), 624-634.

Main hypothesis: Subcategorization reduces satiation by guiding people to pay attention to differences between the subcategories, which leads to decreased perceived repetition.

This article makes a significant finding that simple subcategorization can reduce satiation. It is especially meaningful since it can be applied to various circumstances, as shown in the experiments with various scenarios and tasks. Moreover, by focusing on enjoyment rather than consumption quantity, it suggests a simple way to enhance customer experience. It also provides an interesting insight into how the experts stay focused on the chosen domain without losing interest.

As much as I find this article interesting, I have some doubts regarding its generalizability and its proposed process. First, the authors use dislike and decrease in enjoyment as a proxy for satiation. I agree that both measures are deeply related to satiation, but are they sufficient? Does likeness or less decrease in enjoyment necessarily mean further engagement? I want to point out that further engagement involves one of the subcategories. To illustrate, in the studying scenario of experiment 1, the participants were more willing to continue studying compared to studying Biology or Calculus. However, if they actually choose to continue studying, then they would have to select among the two subjects. At this point, would they want to continue studying? I believe further research is needed to answer this question.

Second, I find the proposed process a little bit unconvincing, especially the attention to the difference (flavor) part. I agree that this process partially explains the specificity effect and that it fits the jellybean case well. However, I do not think this process can capture the broad circumstances in which the specificity effect occurs. I propose that attention to the difference contributes to the specificity effect only in some situations and suggest some boundary conditions that can be examined. One can check if this process also applies to cognitive experience and is not bounded to sensory experience. One way to check is to ask the participants in experiment 1 to recall the specific categories (e.g. Biology, Calculus) after going through unrelated tasks. If the subcategory group recalls the title of specific categories better than the general category group, then we can say that this process also holds for cognitive experiences. Another boundary condition could be how obvious the difference is. For instance, in experiment 2, the differences between the subcategories were obvious and I find it hard to believe that the subcategory group paid more attention to the differences between fishes and birds than the general category group. That is, will the process still be the same when differentiating the subcategories does not require much attention. I also wonder if the proposed process will be the same when the differences between the subcategories are more complex or vague. For jellybeans, the only difference is color and taste. How about products with multiple features? For instance, let's say people are shown pictures of shoes and pants. Subcategories for shoes can include Boot, Loafer, and Sneaker. In this case, differences between subcategories might be confusing to some people (especially if they are not familiar with different types of shoes). Since there is no one conspicuous feature to focus on, it might be hard to pay attention to the difference. I wonder if subcategorization will still reduce satiation and if the proposed process will hold in this case.

Third, I think some confounds in the experiments are not properly addressed. One is that the participants might have perceived the general category to be broader than just the union of the subcategories. For example, in experiment 2, when asked whether they will like to see more pictures of animals, the participants of the subcategory group could have expected to see animals that are not part of the subcategories. On the other hand, the general group were already seeing animal pictures, so do not have such expectation. I also suggest that the wording of the questions could be another confound. For instance, when asked whether they would like to see animal pictures, the general group has been seeing the 'animal' label repeatedly. In contrast, the subcategory group did not see the word 'animal' at all. This might have created an illusion that the new pictures could somewhat be different from what they were seeing. To check the wording effect, one can compare the general activity group's desire to continue when asked about general activity vs. specific activity. If there were such

wording effect indeed, it would apply in the same way for the general activity group as well. That is, the general activity group will be more willing to engage further in specific activity compared to general activity. In fact, the result of experiment 1 shows this relationship (although I cannot know if it is significant) which leaves room for this alternative explanation.

Lastly, in a similar vein to the second argument, I disagree with how the authors ruled out the perceived-variety explanation. I agree that perceived variety does not fully explain the specificity effect but I believe it deserves more investigation. Especially considering that the jellybeans with only five different flavors are used in experiment 3, I do not find it surprising that the average scores for variety judgments were around the middle for both groups. I think activities with more variety (e.g. experiment 2) are more suitable to validate how perceived variety influences satiation in the context of subcategorizing.

2. Rottenstreich, Yuval, Sanjay Sood, and Lyle Brenner (2007), "Feeling and Thinking in Memory-Based versus Stimulus-Based Choices," *Journal of Consumer Research*, 33(4), 461-469.

Main hypothesis: Memory-based choices prefer affect-rich, hedonic options while stimulus-based choices prefer more deliberate and prudent options. System 1 is activated for memory-based choices since they require maintaining relevant options in the working memory while abundant cognitive resources in stimulus-based choices allow system 2 to override.

This article implies that a shopper's preference may be influenced by how much they have in his/her working memory. It is critical in that it reveals the relationship between modes of thought, self-regulation, and customer preference. Moreover, this article extends beyond the area of self-control and shows that the proposed phenomenon influences customers' price elasticity as well.

It was impressive how the authors added memory-based-without-maintenance and stimulus-based-with-maintenance conditions to support that it is a cognitive load on working memory, not recall, that is important to the proposed main effect. How they suggest alternative explanations regarding accessibility and use of a prominent feature and rule them out was also impressive. I would like to propose yet another possible explanation for experiment 1 that can be ruled out by the following experiments but is not discussed by the authors. Under memory-based or stimulus-based-with-maintenance conditions, the cognitive load could have depleted energy sources, thereby increasing the impulse to eat sweet desserts. In other words, more preference for sweet desserts could be the result of their actual glucose level decreasing, rather than system 1 being activated. Considering that other research found out self-regulation actually depletes glucose, this alternative explanation is plausible. This explanation can be ruled out by experiment 2 which used universities as choice options, but I believe this alternative explanation deserves to be noted.

Although I find experiment 3 interesting and relevant, I do not think it is free from logical confounds. For instance, this experiment is conducted on the authors' argument that people will prefer high price options when they have more cognitive resources on working memory since system 2 overrides and lets them infer the high quality of the high-priced product. I find this argument intriguing, yet questionable. When choosing a sandwich, not only quality but also price are important determining factors. Thus, the best analogy that can be made here is that when system 2 overrides, people can handle the price-quality tradeoff better. It might not always be the case that price-quality tradeoff leads to preferring more quality options. I understand that the authors intended to claim that irrational price aversion decreased in stimulus-based choices. While I agree that this result supports their argument to some extent, I believe a more thorough investigation is needed to extend the main finding to price elasticity.

As a matter of fact, as the authors mention, a contrast between memory-based and stimulus-based-with-maintenance participants shows unexpected discrepancies. I suggest that substitutes can be a confound in experiment 3 that caused such unpredicted results. To elaborate, among the four options, some might be a stronger substitute for another sandwich. For example, people might think of roast beef or ham sandwiches to be better substitutes for a turkey sandwich than tuna since they are meat. In experiments 1 and 2, the choice set consisted of four options, of which three were affect-rich. The

affect-rich options would have served as a stronger substitute for each other. In contrast, substitution is more complex in experiment 3. Focusing on price, all other sandwiches but turkey sandwich serves as a strong substitute for each other. On the other hand, focusing on the main ingredients, all other sandwiches but tuna sandwich serves as a strong substitute for each other. In the \$7 turkey sandwich condition, some people might have inferred that the turkey sandwich would be of better quality but did not want to choose it since they consider it too expensive. Among those people, some might prefer to choose tuna since they do not want over-priced turkey, but do not want worse quality meat as well. Others might prefer to choose ham or roast beef since (perceived) high-quality turkey induced them to crave meat. To sum up, I would like to point out that substitute patterns can complicate the decision-making process and thus influence the result of this experiment.

3. McFerran, Brent and Anirban Mukhopadhyay (2013), "Lay Theories of Obesity Predict Actual Body Mass," *Psychological Science*, 24 (8), 1428-1436.

Main hypothesis: People with diet lay theory of obesity are more concerned with regulating their calorie intake, which leads to lower BMI compared to exercise lay theorists.

This article makes an important finding that individuals' mere belief can impact their own health. It is meaningful in that it shows how powerful belief can be. Moreover, considering that the lay theory of obesity can be changed by reliable information, this article provides a unique solution for decreasing the obesity rate.

First of all, I was surprised to find out that the impact of lay theory on BMI is quite big. According to Table 1, the size of the coefficient of lay theory is comparable to that of medication use known to affect weight. In table 2, the size of the coefficient of lay theory is bigger than education. I understand that there may be other omitted variables that might affect the coefficients. Nonetheless, I find it amusing that the lay theory had a significant impact on BMI in several experiments with participants from three different countries. I hope further research could find out how much impact lay theory has on obesity compared to other factors.

Now, I would like to point out some confounds in the supplementary experiments regarding cognitive dissonance. The authors conducted three experiments to dispute the cognitive dissonance explanation. The first experiment argues that if overweight or obese people adopt the exercise theory to protect their self-esteem, then self-esteem should correlate more strongly with lay theory for high BMI individuals. According to this statement, high BMI individuals should have higher self-esteem when they believe in exercise theory (vs. diet theory). However, I oppose this argument. The diet-theorist with high BMI might not have kept their lay theory since they did not have low self-esteem in the first place. That is, among individuals with high BMI, those with low self-esteem could have changed their lay theory to blame exercise to increase their self-esteem. In this case, the correlation between self-esteem and lay theory could be similar in high BMI and low BMI groups.

The second and third experiments compare how people feel about being obese due to diet, exercise, and no specific reason. The authors argue that exercising should have been less self-damning if the cognitive dissonance explanation were true. However, I do not think this comparison properly addresses the problem at hand. Specifically, I suggest that a 3(obesity reason – diet, exercise, no specific reason) x 2 (lay theory – diet, exercise) design would have been more suitable. To elaborate, let's say that the cognitive dissonance explanation was indeed the underlying reason for exercise theorists having higher BMI. Then overweight individuals who changed their lay theory to exercise theory are most likely to be the ones who fail to regulate their diet, which means that they are most likely to feel bad about obesity caused by diet. Thus, exercise theorists are more likely to show bigger differences for three given situations compared to diet theorists. I think the supplementary analysis did not take into account that among overweight individuals, some might adopt the exercise theory to resolve cognitive dissonance but others might not.

Lastly, I would like to add yet another possible explanation for the proposed lay theory effect. People have stereotypes about overweight or obese people. I suggest that these stereotypes might differ on which lay theory individuals accept. For instance, exercise theorists might associate obesity with

laziness while diet theorists associate it with greediness. If people in overall (or overweight people) hate being labeled as greedy more than lazy, then overweight people might switch their lay theory due to cognitive dissonance. Although how overweight people are judged by others depends on other people's lay theories rather than their own lay theories, I hypothesize that those who worry about being labeled greedy are likely to adopt exercise lay theories since people tend to reflect their thoughts to others. They might feel uncomfortable with sticking with the diet theory since it makes them judge other overweight people as greedy, which furthers their worried about being judged in the same way. On the other hand, by changing their lay theories, they might no longer judge other overweight people to be greedy, which allows them to hope that other people will not judge them as greedy as well.

4. Hershfield, Hal E., Daniel G. Goldstein, William F. Sharpe, Jesse Fox, Leo Yeykelis, Laura L. Carstensen, and Jeremy N. Bailenson (2011), "Increasing Saving Behavior Through Age- Progressed Renderings of the Future Self." *Journal of Marketing Research*, 48, 23–37.

Main hypothesis: Interacting with an age-progressed rendering of oneself leads to allocating more resources to the future due to the increase in self-continuity.

This article is significant in that it shows that simple interaction with the future self can encourage saving behavior. It provides practical insights regarding the implementation of the proposed method. In particular, it is noteworthy that the proposed method can be used in combination with other decision aids and that mere image representation of future self can do the effect.

First of all, I would like to suggest some ideas for future research. I wonder if this finding can be extended to other areas that require restraining current pleasure to prepare for a better future. For example, I wonder if interaction with the future self can enhance exercise engagement or alcohol consumption reduction. If increased self-continuity leads people to save more for their future self then it should also lead people to do other things for their future self as exercising. I believe these kinds of extensions are not only plausible but also impactful (if it holds). I also wonder if the proposed phenomenon will still appear with repeated interaction. There may be several moments in your life when you have to make a critical decision on future savings. If someone engages in an interaction with the future self each time, would he/she be less affected the second time compared to the first? One might argue that there are only a few such moments in life, but if this study can be extended as I suggested, then further research on repetition would be useful.

Next, I would like to make suggestions on how to improve experiments 3a and 3b. These experiments play an important role in this article in showing the findings' usefulness. However, its practical nature entails several confounds. Although the authors address such confounds in different ways, I believe more analysis could be helpful. Specifically, separating each effect (self-continuity effect, valence effect, and percentage aid effect) and comparing the power of the main effect with others would be helpful. I suggest a 2x2x2 factorial design with each factor for 1) with/without percentage aid 2) future vs. current 3) valence (neutral vs. emotion) for this purpose. This experiment design enables comparing the power of each effect. Moreover, analysis of interactions can be used as a foundation for building optimal decision-aid design.

Lastly, I list some of the remaining thoughts. The authors eliminate the concept-of-aging explanation by comparing the participants who interacted with the future self (vs. other). I wonder if interacting with a future image of the other can generate a similar effect to interacting with the future self, given that self and the other share common features. For instance, does interaction with a future image of another person of the same gender and ethnicity more effective in increasing savings than other cases? I guess good representation can enhance self-continuity to some extent by helping people to imagine their future selves. What features would be relevant for making such a good representation? I also wonder how the results would have changed if emojis or memojis were used instead of a human face. Emojis can represent valence but are not related to self. More interesting are memojis, which can both express valence and be linked to self. I wonder if memojis would yield similar results with self-image.