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Order in Choice: Effects of Serial Position on Preferences

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When choice options are sampled one-at-a-time in a sequence and the chooser makes a single end-of-sequence choice of the best option in the choice set, which location in the sequence is most often chosen? We report on one large-scale experiment that assessed preferences in choice sets of 2, 3, 4, or 5, and found a large primacy effect such that the first option had a large advantage in the end-of-sequence choice. We also found that sophisticated participants, , showed a recency effect for the longer sequences. We conclude with a process model to explain the results we obtained.

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EXTENDED ABSTRACT

Our primary interest is to determine if there are biases in a final choice simply as a function of the location of each option in the temporal sequence–what we call order effects on choice. Notice that we are assuming that on-line evaluation is taking place (Hastie and Park 1986) and that the chooser has a goal of making a relative assessment of personal preferences for the options throughout the task.

We distinguish this task from closely related tasks that are associated with some well-known serial position or sequence effects. Although there are several prior studies of the effects of location in a sequence on end-of-sequence choices, there is still no clear answer to the question: Which location in a sequence is most advantageous? Several researchers have concluded that there are "primacy effects": (Carney and Banaji 2008) and many descriptive studies of consumer choice find primacy (Berg et al. 1955). But, some researchers predict and observe "recency effects" (de Bruin 2005). We conjecture that there are both primacy and recency effects under certain conditions.

We propose that when participants sample the options, knowing they will be asked to make a choice, they repeatedly compare each new option with their current favorite. Such a pair-wise competitive evaluation strategy will produce an advantage for later items, especially in longer sequences, where an early option has to beat more options to become the overall favorite. Also, we expect a primacy advantage for early options driven by high levels of attention, lower levels of proactive interference, and the common habit of satisficing (Simon 1955). Thus, our basic hypothesis is that we will observe primacy effects, especially pronounced for short sequences, and recency effects as well in longer sequences. We speculate that this pattern may be moderated by participants' sophistication about the options. Since the pair-wise comparison strategy is demanding of cognitive resources, we predict that participants who are more interested and knowledgeable about the choice options will be more persistent in making pair-wise comparisons and hence are likelier to show recency effects. We report an experimental study of serial position effects on choice and then return to a discussion of the serial evaluation process.

Participants were instructed that they would taste several samples of locally produced wines and then were randomly assigned to taste one sequence with a length of two, three, four, or five samples. At the end of the tasting sequence each participant was asked, "Which ONE of ALL the wines that you have tasted today is your favorite?" Finally, participants completed various questions including a test of wine expertise (Hughson and Boakes 2001).

Each preference serial position curve shows a primacy effect with the first wine preferred more than the second and third in every sequence length. Longer sequences also show a recency effect with the last wine preferred more than the previous two or three wines. When examining high-knowledge versus low-knowledge participants, it is apparent that a simple primacy effect pattern best describes the low-knowledge participants' choices in only the five-wine condition; while the primacy plus recency pattern in the combined data set is only clearly apparent for the high-knowledge participants.

Taken together, globally we have a primacy advantage for all conditions; and a recency effect for four-option and five-option choice sets. Second, the global pattern is qualified by the expertise moderator: There is a primacy advantage for all sets for both low- and high-knowledge participants, and there is also a recency effect for the high-knowledge participants (only for four-option and five-option choice sets). Finally, the primacy effect is larger for the high-knowledge participants in the two-option and three-option choice sets.

Participants expected to be asked for evaluations. This means they were evaluating each wine as they tasted it. Also, all the wines tasted "good" and would get positive evaluations if sampled by themselves. Finally, the wines were difficult to discriminate between for our participants. Thus, our first assumption is that the participants were engaged in a "competitive" evaluation process for each pair of wines sampled. When they sampled the first wine, it became their favorite. When they sampled the second wine they compared their memory of the first wine's goodness to the second wine and concluded with a current favorite; and so on.

We propose that two biases operated within that sequential competitive evaluation process. First, there is a first-is-best bias that accounts for our consistent primacy advantage. Second, we propose that the high-knowledge participants tried harder (than the low-knowledge participants) to discern differences between the wines. Compared to low-knowledge participants, high-knowledge participants were more persistently looking for a better wine, later in the sequence, if there was one.

This means, for high-knowledge participants there is a substantial chance that the new wine in each competition might surpass the current favorite and this habit produces the pronounced recency effect in longer sequences for high-knowledge participants. For example, suppose each new wine has a .30 chance of beating the "current favorite" and the "current favorite" remains favorite with a .70 probability. The pair-wise model provides an almost perfect fit to the data if we add one more assumption about the comparison process. In the original model, we assume that all current favorites have a .70 versus .30 advantage in all pair-wise comparisons. If we suppose that the "current favorite advantage" increases for later favorites (e.g., if the third option wins its pair-wise competition its advantage increases .75 versus .25), then the model almost perfectly fits the data.

The pair-wise comparison process model is a hybrid of the two major psychological explanations for sequence effects in the extant literature. The primary contribution of this research is a clear answer to the question of which serial position locations in a sequentially-presented choice set have an advantage in the final choice of a single option. The answer is that primacy is always an advantage and that recency has an advantage in longer sequences and especially when the choosers are knowledgeable about the choice options.

REFERENCES

Berg, H. W., Ferer E. Filipello, Elly Hinreiner, and F. M Sawyer (1955), "Consumer wine-preference methodology studies at California Fairs," *Food Technology*, 9, 90-93.

Carney, Dana R., and Mahzarin R Banaji. (2008), "First is best in rapid social judgment and consumer decision," Harvard University, Unpublished Manuscript.

de Bruin, Wändi B. (2005), "Save the last dance for me: Unwanted serial position effects in jury evaluations," *Acta Psychologica*, 118, 245-260.

Hastie, Reid, and Bernadette Park (1986), "The relationship between memory and judgment depends on whether the judgment is memory-based or on-line," *Psychological Review*, 93, 258-268.

Hughson, Angus L., and Robert A. Boakes (2001), "Perceptual and cognitive aspects of wine expertise," *Australian Journal of Psychology*, 53, 103-108.

Simon, Herbert A. (1955), "A behavioral model of rational choice," *Quarterly Journal of Economics*, 69, 99-118.