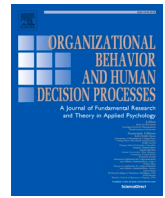




Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp

How rank position and list length shape people's evaluations

Uri Barnea^{a,1,*}, Alice Moon^{b,1,*}, Jackie Silverman^{c,1,*}^a Bocconi University, 1 Via Roentgen, Milan 20136, Italy^b Georgetown University, 37th and O Streets NW, Washington, DC 20057, United States^c Vanderbilt University, 401 21st Ave S, Nashville, TN 37203, United States

ARTICLE INFO

Keywords:

Decision processes
Employee evaluation
Open science
Product evaluation
Range theory
Rank position
Reference points

ABSTRACT

How do people use ranking information when making evaluations? In eight preregistered experiments, we find a persistent preference for options ranked within shorter (vs. longer) lists. For instance, participants reported preferring to hire a prospective employee ranked 3rd of 12 employees over one ranked 6th of 24, despite both having the same relative position within their respective lists (25th percentile). We propose that when people evaluate rankings, they primarily consider the option's position relative to the best option on the list (i.e., distance from the top-ranked alternative). Thus, they tend to prefer options ranked in shorter lists, even when their relative percentile ranking is the same as—or even worse than—an alternative ranked in longer lists. Accordingly, we find that the effect attenuates when we: (a) draw attention to the distance from the bottom-ranked option by highlighting the number of alternatives ranked below the focal option, and (b) emphasize the focal option's relative position on the list. These findings are theoretically important for advancing the understanding of how people process ranking information and practically important to managers and other practitioners who construct and communicate ranked lists and use rankings in evaluations themselves.

Choices are often guided by outside sources of information, such as those provided by companies, news and media outlets, artificial intelligence, or other people. One ubiquitous source of such information is rankings: lists in which options are ordered from highest (i.e., the top of the list, or the best rank position) to lowest (i.e., the bottom of the list, or the worst rank position) based on metrics like quality and popularity (Chun & Larrick, 2022). Indeed, ranked lists are rampant, from the New York Times' bestseller lists to the US News' college rankings, from the Fortune 500 to Amazon's thousands of ranked product categories (Iñiguez et al., 2022). Unsurprisingly, rankings are quite influential, guiding people's behaviors and choices (Derakhshan et al., 2022; Ursu, 2018; Weingarten, Davidai, & Barasch, 2023), including highly consequential decisions like selecting universities (Griffith & Rask, 2007) and health care providers (Pope, 2009; Varkevisser, van der Geest, & Schut, 2012). Rankings are also commonly used in organizations to inform managerial and human resources decisions. For instance, managers often rely on rankings to decide who to recruit, hire, promote, and fire (Dunn, Ruedy, & Schweitzer, 2012; Garcia & Tor, 2007). Indeed, stack or forced ranking, wherein all employees are ranked and the worst-ranked are put on performance improvement plans or fired, is seeing a

resurgence, with an estimated 30% of Fortune 500 companies using this approach (Corvisio, 2020).

Ranked lists directly convey two key types of information: (a) the absolute rank of each option within that list (*rank position*) and (b) the number of options ranked in the list (*list length*). For example, managers can use management software to view and compare employees' ranks within their respective teams (see Fig. 1). Similarly, the popular travel recommendation site TripAdvisor shows users how a certain attraction is ranked within a list of all "things to do" in its area (see stimuli for Study 2a) to help them make a more informed decision.

Together, these pieces of information determine an item's relative position in its list (*percentile ranking*). Based on such information, managers can infer, for example, that an employee ranked 2nd in a team of 10 (with a percentile ranking of 20%) is performing better than one ranked 4th within a team of 10 (with a percentile ranking of 40%). Moreover, they can reasonably assume that an employee ranked 2nd in a team of 10 is performing worse than one ranked 2nd within a team of 20 because it has a worse relative position within its respective list (20th percentile vs. 10th percentile). Thus, when people consider a ranked option, they may use the total number of options in the list, the focal option's absolute

* Corresponding author.

E-mail addresses: uri.barnea@unibocconi.it (U. Barnea), alice.moon@georgetown.edu (A. Moon), jackie.silverman@vanderbilt.edu (J. Silverman).¹ All authors contributed equally to the paper.<https://doi.org/10.1016/j.obhdp.2026.104492>

Received 17 April 2025; Received in revised form 2 April 2026; Accepted 6 April 2026

0749-5978/© 2026 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Name	Team	Team Size	Ranking
Jackie	Analytics	12	3
Alice	Operations	8	2
Uri	Sales	24	6

Fig. 1. A simplified image of the information generated from “stack” or “forced” rankings to aid managers in evaluating employees across teams within one company.

position in the list, and its relative position (i.e., percentile) in the list to evaluate its quality.

In the current paper, we investigate how people process these different pieces of ranking information in their evaluations of employees, products, and experiences. We reveal that when people evaluate ranked options, they predominantly base their judgments on the distance from the top-ranked item rather than the distance from the bottom-ranked item or the relative percentile. This tendency makes an option ranked within a shorter list appear better because it is necessarily positioned closer to the top-ranked item. Thus, when evaluating ranked options equated on percentile rankings, people perceive the option ranked within a shorter list more positively than the one ranked within a longer list (e.g., an employee ranked 2nd out of 8 over one ranked 4th out of 16).

This research focuses on a prevalent but novel context—rankings—to investigate how decision makers integrate different quantitative inputs into their evaluations. Unlike the domains in which people’s processing of numeric information has typically been studied (e.g., ratios, probabilities, prices), people typically evaluate ranked items within the context of a list, which provides two natural endpoints that can serve as salient reference points for evaluation: the top- and bottom-ranked options. Because of this unique feature, studying rankings can reveal insights into how people use an item’s relative position in their judgments.

As such, we add to the growing body of work on people’s sensitivity to numeric ranges, which explored how judgments and preferences can shift towards the endpoints of the range (Hu & Simmons, 2024; Thomas & Kyung, 2019), or instead, away from them (Chun & Norton, 2024; Kivetz, Netzer, & Srinivasan, 2004; Neumann, Böckenholt, & Sinha, 2016). Our research demonstrates that people treat the top-ranked item as a more informative reference point than the bottom-ranked item, thereby relying more heavily on distance from the top than on distance from the bottom when evaluating ranked options. Furthermore, our findings are practically important, as uncovering how people process ranking information can inform how companies market their products to consumers as well as how managers use ranking information in existing and potential employee evaluations.

In what follows, we first review the relevant literature and motivate our predictions. Then, we report eight preregistered experiments (total $N = 4,455$) that demonstrate people’s general preference for options ranked in shorter lists relative to their longer-list counterparts and explore the mechanism behind this effect. Finally, we consider theoretical extensions and practical implications for companies and managers.

1. Theoretical background

1.1. Rankings

Rankings organize comparative information in an intuitive and interpretable manner. It is thus not surprising that companies use rankings in their employee evaluations alongside other approaches (Corvisio, 2020; Wijayanti et al., 2024), or that consumers defer to rankings when trying to evaluate and choose products (Derakhshan et al., 2022).

Interestingly, research on performance rankings of employees has focused on how the ranked workers themselves react to such evaluation systems. For example, informing workers of how they and their

colleagues are positioned within a ranking can lead to higher competition (García, Tor, & Gonzalez, 2006) and performance (Kramer, Maas, & van Rinsum, 2016), but also distrust (Dunn et al., 2012) and unethical behavior (Vriend et al., 2016). Another line of research investigates how rankings (as opposed to other evaluation methods, such as scale ratings) affect the people producing the evaluations, finding they lead supervisors to provide more differentiated evaluations and base their judgments on relatively objective and performance-based criteria (Cardinaels & Feichter, 2021; Guralnik, Rozmarin, & So, 2004; Stewart, Gruys, & Storm, 2010).

Research on product rankings has examined how the information communicated to consumers can influence preferences and decisions. Explicitly stating ranking information (vs. allowing rankings to be implicit through ratings), for instance, can lead people to (over)weigh rankings when making choices (Chun & Larrick, 2022). The way in which ranking information is presented can also affect evaluations. For example, when consumers evaluate a single ranked product from either a high- or low-status category, they base their evaluation mostly on the product’s ranking, often failing to appreciate that—regardless of the within-category rank—a product from a high-status category may be better than one from a low-status category (Leclerc, Hsee, & Nunes, 2005).

We extend this literature by studying the influence of a factor inherent to all rankings: the length of the list (i.e., the number of ranked items). In doing so, we demonstrate how people’s use of the endpoints of a ranked list as reference points affects their evaluations, regardless of the amount of information they receive.

1.2. Numeric processing

A wealth of literature has documented how numeric information influences evaluations (see Santana, Thomas, & Morwitz, 2020 for a review). When processing numeric information like probabilities, ratios, and frequencies, people often rely on easier-to-process numbers and neglect harder-to-process values, leading to phenomena like “denominator neglect” and “ratio bias” (Denes-Raj, Epstein, & Cole, 1995; Pacini & Epstein, 1999; Reyna & Brainerd, 2008). For instance, people judge an outcome (e.g., drawing a red ball from an urn) as more likely when its likelihood is expressed with larger numerators (e.g., 10 out of 100 balls rather than 1 out of 10 balls) because they focus on the number of desired outcomes (the “numerator” of 10 or 1; Denes-Raj et al., 1995; Pacini & Epstein, 1999).

Unlike the numeric information for which denominator neglect and related effects have been studied (e.g., probabilities, ratios, and frequencies), rankings convey information about ordinality rather than magnitude. That is, rankings specify which options are higher or lower, but not the extent to which they are better or worse. Moreover, ranked lists provide not only an option’s rank position, but also the range of all ranked options. Accordingly, inherent in ranked lists are two salient reference points: the first (top-ranked) and last (bottom-ranked) items on the list. Considering these characteristics of rankings, there is an open question as to whether the psychology behind phenomena like denominator neglect and ratio bias applies to ranking information as it does for magnitude judgments.

One paper has started to answer this question. Sevilla, Isaac, and Bagchi (2018) examined how the format of rank claims—absolute rank positions versus ranking percentiles—changes evaluations. For example, consumers prefer an option ranked in the “top 10” of 50 over one ranked in the “top 20%” of 50, but an option ranked in the “top 20%” of 500 over one ranked in the “top 100” out of 500. They proposed that this “format neglect” arises from a similar psychological mechanism to denominator neglect: consumers see absolute rank positions as more diagnostic than list length and therefore overweigh absolute rank position when interpreting claims. As such, this effect disappears when people can transparently compare both formats and observe that they are equivalent (i.e., in joint, rather than separate, evaluation). While this

work demonstrates that numeric format and beliefs about the diagnosticity of list length can bias interpretations of rank claims, it leaves untested how the influence of ranking information itself affects evaluations when presented in the same format. We extend this line of work by examining how the unique features of ranked lists—their ordinal structure and their natural reference points—influence evaluations. Specifically, we test how people use the position of a ranked item relative to the list endpoints in their judgments.

In doing so, our work builds on prior work showing that people typically do not evaluate numeric information in a void, but rather in reference to other numeric information (Baker, Pan, & Wurgler, 2012; Kahneman, 1992; Lattin & Bucklin, 1989; Rosch, 1975). Indeed, people demonstrate a sensitivity to the range of numeric stimuli (Mellers & Cooke, 1994; Parducci, 1968; Seo, Jo, & Lee, 2019; Sherif & Hovland, 1961; Wallace & Etkin, 2024). For example, people's evaluation of a given price is affected by the entire range of possible prices, i.e., the highest and lowest prices of that product (Janiszewski & Lichtenstein, 1999). Interestingly, there is mixed evidence regarding whether people move toward or away from endpoints. Some work has found that people's responses move toward the endpoints of a range when they are salient. For instance, valuations shift towards endpoints when using a visual scale, which emphasizes endpoints, instead of a free response open-ended text box, which does not (Thomas & Kyung, 2019). Other research, however, has demonstrated people's tendency to move away from the endpoints of a range. Labeling points on a scale with numbers (e.g., on a 7-point scale in a survey), for example, draws responses towards the midpoint because it makes the extremity of the endpoints more salient (Chun & Norton, 2024). Our research investigates how the endpoints inherent in ranked lists shape people's evaluations, leading to a shift in preferences depending on the length of the ranked list. As we argue next, while people's evaluations are affected by both reference points, they are relatively more influenced by the distance of the evaluated item from the top of the list. We outline how this tendency leads to a systematic preference for options on shorter ranked lists.

2. Current research

Consider a manager choosing between two prospective internal hires ranked within their respective teams: Candidate A, ranked 2nd of 8 employees, and Candidate B, ranked 4th of 16 employees. How might this manager evaluate these ranked individuals? Given that both candidates have the same percentile ranking (25th) in their respective teams, they might be indifferent between the two. Indeed, the intended purpose of percentile rankings is to create easier points of comparison within and across samples; for instance, evaluating one applicant's score of 1300 on the SAT against another's score of 16 on the Baccalauréat (a standard French college entrance exam) might leave a university admissions office flummoxed without information about the percentile rankings that these scores represent.

Alternatively, it would also be reasonable for the manager to prefer the candidate ranked within the longer list because they might consider performance within a larger team as a more accurate signal of "true" quality, similar to attributing higher validity to a finding that was derived from a larger sample (Shafer & Zhang, 2012; Tversky & Kahneman, 1974). For instance, taken at the extremes, one should be more certain of the high quality of a candidate ranked 1st on a list of 100 versus on a list of 10. Moreover, if people primarily use the last rank as a point of reference when forming evaluations—that is, if they focus on the number of alternatives that the option is superior to—then they should prefer the candidate ranked within the longer list, as it is farther from the lowest ranked option (Candidate B is superior to 12 alternatives, while Candidate A is superior to only 6 other alternatives).

In contrast, we propose that people tend to prefer options from shorter lists (Candidate A) because they rely more heavily on the top rank (#1) than on the bottom rank as a reference point for evaluating a ranked option. Given that an option ranked in a shorter list will

necessarily be closer to this reference point compared to its longer-list counterpart, this comparison should generate a more positive evaluation of the shorter-list candidate (Candidate A, ranked 2nd of 8).

Why might people have this tendency? For one, all else equal, the top-ranked option tends to be the most attractive and thus most salient (Chun & Larrick, 2022). In fact, many ranked lists refer to the top of the list (e.g., Forbes' yearly "World's Best Employers" list). Therefore, it stands to reason that people will evaluate items relative to whatever is ranked first. Additionally, rank position is inherently evaluable as it provides a calculable rank distance from the top-ranked option. Whereas most quantitative information is difficult to evaluate on its own (e.g., a score of 80 on a Wine Spectator list is meaningless without knowing the boundaries of the scale and how other wines compare), rank position provides a clear indication of how an option compares to its superior alternatives. Simply knowing that something is ranked 3rd, for instance, indicates that it is inferior to two other alternatives. In fact, companies sometimes advertise rankings without disclosing the length of the list, presumably to tip evaluations in their favor. For example, a business school might advertise that it is the #2 Best Evening MBA Program without mentioning that this favorable rank position is constrained to a fairly small set (e.g., within only New England; Luca & Smith, 2013). Finally, even if list length is considered, the list itself is not necessarily exhaustive; a ranked list of the "Top 20" places to get a cheesesteak in Philadelphia leaves out countless other sandwich shops which did not make the list (presumably because of poor quality). Thus, while there may be ambiguity about the full extent of what comes below a ranked option, people can be more certain of how far it is from the top of the list. We therefore propose that people will be relatively more inclined to use—and consequently, be influenced by—the top-ranked item as a reference point in their evaluations.

Returning to our earlier example, consider once more the choice between two candidates for an internal hire: Candidate A, ranked 2nd of 8 in their team, and Candidate B, ranked 4th of 16 in their team. We predict that a manager making this choice will consider both how Candidate A's rank position is closer to the best employee in their team and how Candidate B is farther from the worst employee in their team, but the former will carry more weight in their evaluation. Consequently, they will be more likely to choose the candidate from the shorter list—Candidate A—despite both having the same relative position (i.e., percentile ranking).

3. Study overview

Across eight studies (and two additional studies in the [Web Appendix](#)), we find that people prefer options from shorter lists over options with equivalent relative position from longer lists (e.g., an option ranked 2nd of 8 over one ranked 4th of 16). Study 1 establishes this effect for a hiring decision among a sample of real managers. Study 2a generalizes the effect to product evaluations using realistic stimuli and across different rank-pairs, and Study 2b demonstrates it for an incentive-compatible decision. Study 3 finds that this effect holds even with a conservative test in which the shorter list product has a worse percentile ranking. Study 4 shows that the effect holds for poorly-ranked options (i.e., at the 90th percentile). The remaining studies provide support for our proposed mechanism: that people prefer options ranked within shorter lists because they rely more on the distance from the top of the list than on the distance from the bottom of the list. Study 5 shows that when evaluating ranked options, people report considering rank position more than list length, and greater consideration of rank position is associated with greater preference for shorter list options. Study 6 shows that the effect is more (less) pronounced when the option's distance from the top (bottom) ranked option is more salient. Finally, Study 7 finds that the effect attenuates when rankings are communicated via percentiles, which highlights the equivalence of options' relative rankings.

All data, materials, analysis scripts, and preregistrations are available here: <https://researchbox.org/783>. We report all measures,

manipulations, and exclusions. Study 2b was run in a university behavioral lab where the sample size was determined by how many individuals signed up for lab sessions. All other studies were run on Amazon’s Mechanical Turk (MTurk) and Prolific Academic, and sample sizes were determined in advance to provide at least 80% power to detect the focal effect in each study based on preliminary effect size estimates from pilot studies. All studies, including the two supplemental studies, were preregistered. We report any deviations from our preregistrations in the [Web Appendix](#). There are no conflicts of interest or funding sources to declare.

4. Study 1

Study 1 provided an initial test of our proposed effect. We recruited participants with real managerial experience to make hiring decisions about job candidates in a scenario. Both candidates were ranked within their specific departments, meaning they were ranked within non-overlapping lists, to prevent the inference that the longer list contained some or all of the shorter list (and thus might be of lower overall quality). Our focal test concerned participants’ singular evaluation of one job candidate (either ranked on a shorter or longer list), but given that hiring decisions often involve comparisons, participants also evaluated a second candidate and then chose between the two.

4.1. Method

Three hundred one unique Prolific Academic participants (Age: $M = 41.67$, $SD = 11.89$; 46.8% Female, 0.7% other/preferred not to say) completed an online study for payment. We restricted recruitment to participants on the platform who reported having “hiring” and/or “people management” as decision-making responsibilities at work. Confirming their relevant management experience, at the end of the study, the vast majority of participants reported that they currently (74.8%) or previously (18.3%) held a management job where they had to make hiring decisions.

Participants were randomly assigned to one of two between-subjects conditions: *shorter list* or *longer list*. All participants imagined that they were making a hiring decision as a manager of a large company. They first read information about an internal candidate for the position (see [Fig. 2](#)). Importantly, this information included the candidate’s performance ranking within her department, as determined by her manager. In the *shorter list* condition, participants were told that the candidate was ranked 3rd of the 12 employees in her department. In the *longer list* condition, participants were told the candidate was ranked 6th of the 24 employees in her department.

Participants evaluated the candidate on three items: (a) “How would you evaluate this candidate?” (1 = not particularly well to 7 = extremely well); (b) “How well do you think this candidate would perform in this

new position?” (1 = very poorly to 7 = very well); and (c) “How likely would you be to hire this candidate?” (1 = extremely unlikely to 7 = extremely likely). As preregistered, we averaged these three items to create a composite evaluation measure ($\alpha = .88$).

Next, participants read about a second internal candidate from a different department than the first (see [Fig. 2](#)). Importantly, this candidate’s ranking information differed from that of the first candidate; if the first candidate was ranked on a shorter list (out of 12), the second was ranked on a longer list (out of 24), and vice versa. Participants then answered the same three evaluation items about this second candidate ($\alpha = .93$).

Finally, participants were presented with information about both candidates again and indicated which candidate they would hire. They then reported their managerial experience and their age and gender for demographic purposes.

4.2. Results and discussion

We conducted an independent samples t-test comparing the evaluation of the first candidate between the two conditions. As expected, participants evaluated the candidate ranked on the shorter list more positively ($M = 5.71$, $SD = 0.73$) than the candidate on the longer list ($M = 5.43$, $SD = 0.72$), $t(299) = 3.29$, $p = .001$, $d = 0.39$. These effects also held for the second candidate that participants evaluated ($M_{Shorter} = 5.46$, $SD = 0.92$ vs. $M_{Longer} = 4.71$, $SD = 0.85$), $t(299) = 7.34$, $p < .001$, $d = 0.85$.

We also conducted a one-sample proportion test comparing the distribution of participants’ hiring decision to a 50-50 distribution. Supporting our hypothesis, more participants chose to hire the shorter-list candidate (61.13%), $\chi^2(1, N = 301) = 14.91$, $p < .001$, *Cohen’s g* = .11.

In Study 1, participants with managerial experience exhibited a preference to hire candidates ranked within shorter (vs. longer) lists. Notably, participants preferred the shorter-list option over a longer-list option in both separate and joint evaluation contexts. This finding is distinct from [Sevilla et al. \(2018\)](#), who found that people prefer products whose rank is conveyed with a smaller absolute number only in separate evaluation, but *not* in joint evaluation, which makes the comparison of these two claims more transparent. In contrast to these and other findings (e.g., [Leclerc et al., 2005](#)), we show that the preference for shorter-list options is robust to both joint and separate evaluation.

Furthermore, this effect was robust despite making clear that the two candidates stemmed from non-overlapping lists (in this case, different departments). This helped ensure that the preference for shorter list products was not driven by a belief that the shorter list was simply of better quality than the longer list (for instance, the longer list could have contained the shorter list with the additional items comprising only worse options). In the majority of the studies in which participants evaluated options from both lists (Studies 2a, 2b, 4, 5, & 7), we made clear that the lists were non-overlapping (e.g., lists of different locations or different companies) to avoid this potential alternative explanation. To directly test whether a quality explanation accounted for the effect we observed, we also measured perceptions of the list quality in Study 6.

5. Studies 2a-2b

Studies 2a and 2b aimed to test whether people’s preference for items ranked in shorter lists generalizes to another important context: product choice. Specifically, Study 2a tests the effect using realistic, information-rich stimuli adapted from three different websites, while Study 2b does so for a real incentive-compatible product choice. To further establish robustness, these studies featured a variety of different list lengths, rank positions, and percentile rankings. Again, all the products and experiences were clearly ranked within non-overlapping lists (i.e., due to different brands or locations defining the lists).

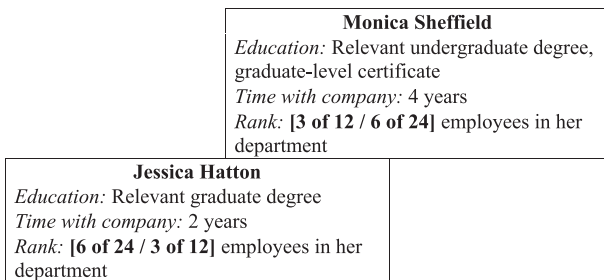


Fig. 2. Job candidate information participants saw in Study 1. All participants first read about and evaluated the candidate on the left; rank information (i.e., 3 of 12 vs. 6 of 24) varied by condition. Then, participants read about and evaluated the candidate on the right (whose rank information differed from the first candidate). Finally, participants saw information about both candidates again and chose which candidate they would hire.

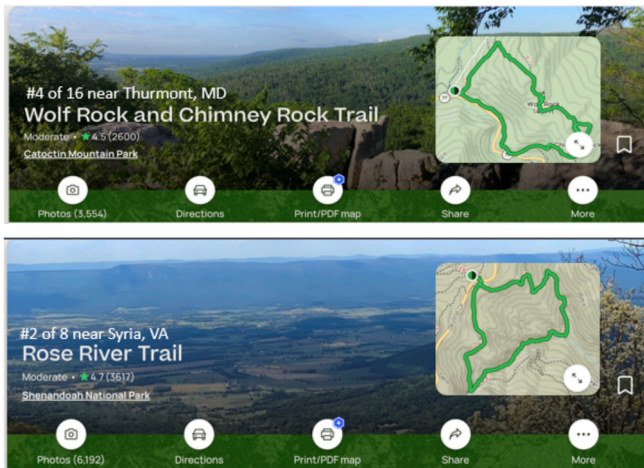


Fig. 3. Sample stimuli for the trail scenario in Study 2a.

5.1. Study 2a: realistic website stimuli

5.1.1. Method

Three hundred unique Prolific Academic participants (Age: $M = 39.58$, $SD = 13.23$; 47.0% Female, 2.3% other/preferred not to say) completed an online study for payment.

Participants chose between two different options in three travel scenarios, presented in random order. These scenarios asked participants to consider: (a) which restaurant to eat at in Philadelphia; (b) which trail to go hiking on outside of Washington, D.C.; and (c) which historic home to visit in central Illinois. For all scenarios, we provided rich, realistic descriptions of both options (e.g., reviews, images, price point) based on relevant, commonly used websites (see Fig. 3). The order in which the two options were presented was counterbalanced for all scenarios.²

Importantly, the website images also included information about each option’s rank within its respective location. For instance, participants read that the Wolf Rock and Chimney Rock Trail was ranked #4 of 16 trails near Thurmont, MD, and the Rose River Trail was ranked #2 of 8 trails near Syria, VA. In all scenarios, we used comparable percentile rankings for the two options (~10% for historic homes, 25% for hiking trails, 50% for restaurants). As each ranked list was location-specific, they could not contain any of the same attractions.

After making their choices, participants reported their age and gender for demographic purposes as well as if they had ever visited any

of the attractions mentioned in the study.

5.1.2. Results and discussion

We conducted one-sample proportion tests comparing the distribution of participants’ choices to a 50-50 distribution. Supporting our hypothesis, more participants chose the shorter-list attraction in all three scenarios: restaurant (64.67%, $\chi^2(1, N = 300) = 25.81, p < .001$, *Cohen’s g* = .15, hiking trail (56.67%, $\chi^2(1, N = 300) = 5.33, p = .021$, *Cohen’s g* = .07, and historic home (55.67%, $\chi^2(1, N = 300) = 3.85, p = .050$, *Cohen’s g* = .06 (see Fig. 4). This finding demonstrates the robustness of the effect to different pairs of ranks in realistic product consumption contexts.

5.2. Study 2b: incentivized product choice

5.2.1. Method

Three-hundred seventeen unique undergraduate participants from an American university (Age: $M = 20.27$, $SD = 0.98$; 39.7% Female, 0.9% other/preferred not to say) completed a lab session for course credit.

Participants were informed that they would choose (and actually receive) one of two black ballpoint pens, both of which typically retail for \$0.90. Participants read that the pens were made by different, but similarly popular and reputable, companies: Uniball and Pilot.³

Importantly, participants were told that one pen ranked 2nd best out of 8 pens in its category on its respective company’s website (the shorter-list option) and that the other pen ranked 4th best out of 16 pens in its category on its respective company’s website (the longer-list option). As each ranked list was brand-specific (i.e., one ranked list included only Uniball pens and the other included only Pilot pens), they could not contain any of the same products. The pen brand (Uniball or Pilot) associated with each rank and the order of presentation (first or second) were counterbalanced across participants. After making their choice, participants reported their age and gender for demographic purposes. Once participants finished the survey, they were instructed how to obtain the pen that they chose.

5.2.2. Results and discussion

We conducted a one-sample proportion test comparing the distribution of participants’ choices to a 50-50 distribution. Supporting our hypothesis, more participants chose the pen ranked 2nd out of 8 over the pen ranked 4th out of 16 (63.4%), $\chi^2(1, N = 317) = 22.79, p < .001$, *Cohen’s g* = .13. Thus, Study 2b demonstrates that people prefer the short list option when their choice has a tangible consequence.

We conducted another incentivized study where participants chose

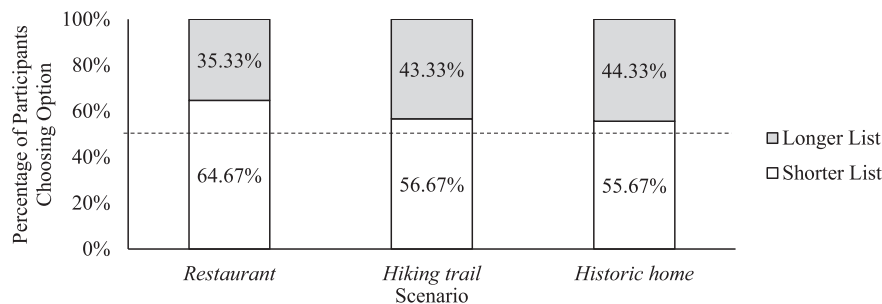


Fig. 4. Participants’ choices between two options—one ranked on a shorter list and one on a longer list—in Study 2a, across three different contexts. The dashed line represents 50%.

² For the restaurant and trail scenarios, we also counterbalanced the ranking information paired with each option. However, in the historic home scenario, we instead took this ranking information directly from TripAdvisor to test whether this naturally occurring context would show the same effect.

³ A pretest using the same student population ($N = 204$) confirmed that these two brands were equally familiar and likable to participants ($t_s < 1.20, p_s > .25$).

which song to spend their time listening to based on its ranking. In Supplemental Study 1 in the [Web Appendix](#) (MTurk, $N = 500$) participants saw two lists of contemporary songs ranked by two different people. One list contained 8 songs and the other 16 songs. Two songs were highlighted: the song ranked 2nd on the list of 8 and the song ranked 4th on the list of 16. Participants chose which of the two highlighted songs they would like to listen to, and after making their selection they listened to a short clip from that song. Replicating the effect, more participants chose to listen to the song ranked on the shorter list (59.80%), $\chi^2(1, N = 500) = 19.21, p < .001, \text{Cohen's } g = .10$. Another advantage of this study is that it demonstrates robustness of the effect to when people can see the entirety of both ranked lists rather than just the focal options (see [Web Appendix](#) for details).

6. Study 3

Building on the previous studies, Study 3 sought to provide a particularly conservative test of the effect. Participants chose between a shorter-list product that had a worse percentile ranking and a longer-list product that had a better percentile ranking. We predicted that the effect would persist even when the shorter-list product was ranked relatively lower in its respective list. In testing this, Study 3 also addresses whether the preference for shorter-list items can be irrational.

6.1. Method

Four-hundred thirty-nine unique participants recruited from MTurk (Age: $M = 42.42, SD = 12.89; 46.7\%$ Female, 1.1% other/preferred not to say) completed an online study for payment.

Participants imagined that they were searching online to buy a new reusable water bottle and that they had found two water bottles that they liked on two different websites. They were also informed that both websites rank-ordered their products from best to worst. Participants were told that one water bottle was ranked 2nd of 8 water bottles on its website and the other water bottle was ranked 4th of 20 water bottles on its website. The order of presentation was counterbalanced across participants. Participants chose which of the two water bottles they would buy. Thus, given that the shorter-list water bottle had a worse percentile ranking (2nd of 8 ranks at the 25th percentile) than the longer-list water bottle (4th of 20 ranks at the 20th percentile), this choice represented a conservative test of our hypothesis. After making their choice, participants reported their age and gender for demographic purposes.

6.2. Results and discussion

We conducted a one-sample proportion test comparing the distribution of participants' choices to a 50-50 distribution. Even though the percentile ranking of the water bottle from the longer list was better, more participants chose the water bottle from the shorter list (57.18%), $\chi^2(1, N = 439) = 9.04, p = .003, \text{Cohen's } g = .07$.

This result is noteworthy: not only do people have a general preference for shorter-list items, but these findings suggest that this inclination can lead to potentially suboptimal choices. Specifically, the shorter-list product had a worse relative percentile ranking. Despite this, more participants continued to prefer it. We discuss how this finding violates a possible rational choice strategy in the General Discussion.

7. Study 4

The previous studies found that people are more likely to choose a shorter-list, higher-rank option compared to a longer-list, lower-rank option. We primarily focused on well-ranked items (i.e., at or above the 50th percentile) given that they are likely to be the ones most relevant to people's actual choices. Nevertheless, it is informative to consider the generalizability of the effect to poorly-ranked options (i.e., those closer

to the bottom of the list). If—contrary to our prediction—people use the nearest endpoint of the set as a reference point and evaluate the item based on its distance from that anchor (Janiszewski & Lichtenstein, 1999), we should expect the effect to reverse with poorly-ranked items; a product ranked 6th in a set of 8, for instance, is only two rankings away from the worst alternative, while a product ranked 12th out of 16 is four rankings away (i.e., more distant) from the worst alternative.

Study 4 aimed to systematically test whether the preference for shorter-list options extends to poorly-ranked alternatives. Specifically, we manipulated whether the choice between a shorter-list product and a longer-list product involved a rank-pair that was well-ranked (10th percentile) or poorly-ranked (90th percentile).

7.1. Method

Eight hundred unique participants recruited from Prolific Academic (Age: $M = 38.70, SD = 12.70; 47.0\%$ Female, 2.1% other/prefer not to say) completed an online study for payment.

Participants were asked to imagine that they were visiting Philadelphia and choosing between two pizzerias available on OpenTable for lunch. Participants saw images adapted from real OpenTable listings with descriptions of the two pizzerias, including star rating, price point, and cuisine. Importantly, besides the other relevant information, the images included information about each option's rank within its respective neighborhoods. As in prior studies, the two pizzerias were ranked at the same percentile within their respective lists.

Critically, for this study, participants were assigned to one of two percentile conditions. Specifically, we manipulated whether the two pizzerias were well-ranked (10th percentile: choice between 2nd of 20 or 5th of 50) or poorly-ranked (90th percentile: 18th of 20 or 45th of 50). The order in which the two pizzerias were presented and the rank information paired with each pizzeria was counterbalanced. After making their choices, participants reported their age and gender for demographic purposes.

7.2. Results and discussion

We conducted a one-sample proportion test comparing the distribution of participants' choices pooling across the two choice-pairs to a 50-50 distribution. Overall, more participants chose the shorter-list pizzeria (62.50%), $\chi^2(1, N = 800) = 50.00, p < .001, \text{Cohen's } g = .13$. Importantly, separate tests revealed significant effects in the anticipated direction for each choice-pair, 10th percentile: 63.50%, $\chi^2(1, N = 400) = 29.16, p < .001, \text{Cohen's } g = .14$; 90th percentile: 61.50%, $\chi^2(1, N = 400) = 21.16, p < .001, \text{Cohen's } g = .12$ (see [Fig. 5](#)). Moreover, there was no significant difference in the effect for the well-ranked choice-pair and the poorly-ranked choice-pair, $X^2(1, N = 800) = 0.26, p = .61$.

Study 4 demonstrates that the effect is robust to poorly-ranked options as well as well-ranked options. This finding has an important theoretical implication: it implies that when people evaluate rankings, they do not use the *nearest* endpoint of the list as a reference point, as

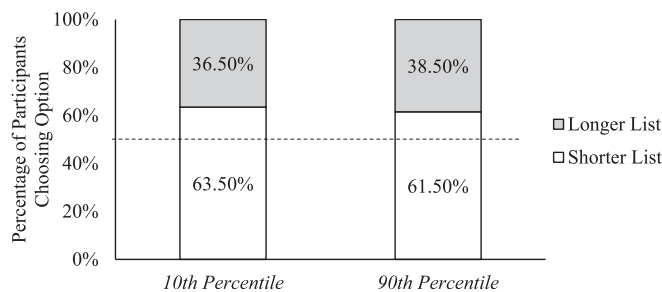


Fig. 5. Participants' choices between two options—one ranked on a shorter list and one on a longer list—in Study 4, where options were either poorly-ranked or well-ranked. The dashed line represents 50%.

might be hypothesized based on research on the use of reference points in other contexts (Janiszewski & Lichtenstein, 1999), but rather the top of the list.

8. Study 5

Study 5 aimed to serve as an initial test of our proposed process. Specifically, we directly measured people's subjective judgments of their considerations of rank position and list length in their evaluations. In line with other empirical work seeking to capture how people consider certain information in their decision making (e.g., Anand, Webb, & Wong, 2023; Monga, May, & Bagchi, 2017; Urumutta Hewage & He, 2022), we asked participants the extent to which they considered different ranking information when evaluating ranked options. We predicted that people would report that they consider rank position to a greater extent than list length, and that greater consideration of rank position would positively predict a preference for the shorter list option.

8.1. Method

Six hundred unique participants recruited from MTurk (Age: $M = 40.68$, $SD = 11.69$; 49.5% Female, 1.5% other/preferred not to say) completed an online study for payment.

Participants were asked to imagine that they were using TripAdvisor, an app that provides reviews of vacation destinations, to help them plan a tropical beach vacation. They were told that they were searching for beaches at two nearby tropical destinations, and that the provided rankings reflected how positively each beach was reviewed compared to other beaches at the same destination. Participants were told that they noticed two beaches, each located in a different destination: one ranked 2nd of 8 and one ranked 4th of 16. The beach photo and name associated with each ranking and their presentation order were counterbalanced.

Participants evaluated the beaches by reporting which beach they would prefer on a scale from 1 (definitely Beach A) to 6 (definitely Beach B). Participants were also asked to rate to what extent they had considered: (a) the total number of beaches ranked on the lists (i.e., that there were either 8 or 16 beaches on the list), and (b) each beach's rankings on the list (i.e., that the beach was ranked 2nd or 4th on the list) when deciding their preference between the beaches on 7-point scales (1 = very little to 7 = extremely). Finally, participants reported their age and gender for demographic purposes.

8.2. Results and discussion

As preregistered, we first recoded our primary dependent variable (evaluation of the beaches) such that higher numbers indicated a preference for the shorter list beach. As predicted, a one-sample t-test comparing participants' preferences to the midpoint of the scale (3.5) revealed a preference for the beach ranked in the shorter list ($M = 4.00$, $SD = 1.45$), $t(599) = 8.51$, $p < .001$, $d = 0.35$.⁴

Next, we examined what factors participants considered when evaluating these beaches. A paired-samples t-test revealed that participants' evaluations leaned more heavily on the consideration of rank position ($M = 5.38$, $SD = 1.42$) than list length ($M = 4.69$, $SD = 1.70$), $t(599) = 8.17$, $p < .001$, $d = .44$.

Finally, we investigated whether these considerations predicted participants' preferences for the shorter list beach. To do so, we regressed consideration of both rank position and list length on beach evaluation. Indeed, the more participants considered rank position, the

⁴ Another reasonable analysis would be to recode this preference scale as a binary choice (i.e., selecting 1, 2, or 3 indicates choosing the longer list beach, and selecting 4, 5, or 6 indicates choosing the shorter list beach). This analysis revealed a consistent result: 68.33% of participants "chose" the shorter list beach, $\chi^2(1, N = 600) = 80.67$, $p < .001$, $Cohen's\ g = .18$.

more positively they evaluated the shorter list beach, $B = 0.27$, $SE = 0.04$, $t(597) = 6.72$, $p < .001$, 95% CI: [.19, .35]. Moreover, the more participants considered list length, the less positively they evaluated the shorter list beach, $B = -0.18$, $SE = 0.03$, $t(597) = -5.46$, $p < .001$, 95% CI: [-.25, -.12].⁵ We also examined whether the effect of considering rank position versus considering list length differed by comparing the absolute values of the two coefficients using a Wald test. Consistent with our theorizing, rank position had a marginally greater effect on evaluations than list length, $\chi^2(1, N = 600) = 3.13$, $p = .08$.

In sum, when evaluating preferences for these two beaches, participants considered both rank position and list length; however, rank position was marginally more influential than list length in these evaluations. Moreover, while greater consideration of rank position was associated with an increased preference for the shorter list beach, greater consideration of list length was associated with an increased preference for the longer list beach.

This initial mechanism evidence relies on participants' subjective perceptions of how they used rank position and list length. An advantage of this approach is that it directly measures how people think about ranking information and how that thought process is associated with evaluations. However, we recognize that judgments of this nature may introduce potential biases. Thus, our next two studies seek to provide additional mechanism evidence via moderation.

9. Study 6

Thus far, we have shown that when choosing between options with the same relative percentile ranking, people prefer the one ranked on a shorter list over the one on a longer list. We theorize that this occurs because they place more weight on rank position than list length in their evaluations; in other words, they rely on the distance from the #1 rank (i.e., rank position) over other information, such as distance from the last rank. Indeed, inherent in rank position information is how it compares to the top item in its list: an employee ranked 4th in his department is clearly inferior to three of his colleagues, but it is less readily apparent how many other employees in the same department he is superior to.

Study 6 investigated a theoretically and practically relevant moderator of this effect: the salience of the ranked option's distance from the list's endpoints. If the number of alternatives that the focal option is better than is more salient, we would expect the effect to attenuate. That is, we hypothesized that emphasizing that an option is ranked 4th out of 16 is *better than* 12 alternatives would facilitate the use of the bottom rank as a reference point, and thus drive people to put greater weight on list length in their evaluations. Conversely, we hypothesized that highlighting the number of alternatives that the focal option is *worse than* would further increase the dependence on the top rank as a reference point and accentuate the rank position, thus amplifying the effect. We tested these hypotheses in this study by manipulating the salience of the number of alternatives that a focal ranked option was better or worse than.

9.1. Method

Eight hundred ninety-eight unique participants recruited from MTurk (Age: $M = 40.09$, $SD = 12.58$; 52.7% Female, 1.4% other/preferred not to say) completed an online study for payment.

Participants were asked to imagine that they were using the crowd-sourced review website Yelp to find a new restaurant to try. Participants were randomly assigned to one of six conditions in a 2 (*List Length: shorter or longer*) X 3 (*Framing: control, better than, or worse than*) between-subjects design. In the *shorter list* condition, participants

⁵ As predicted, preference for the shorter list beach was positively correlated with consideration of rank position ($r = .24$, $p < .001$) and negatively correlated with consideration of list length ($r = -.18$, $p < .001$).

evaluated a pizzeria that was ranked 2nd of 8 restaurants on a Yelp list. In the *longer list* condition, participants evaluated a pizzeria ranked 4th of 16 restaurants on a Yelp list.

We also manipulated the salience of the ranking information about the pizzeria. In the *control* condition, participants simply read the ranking information as in previous studies. In the other two *framing* conditions, participants also read how the pizzeria compared to other restaurants on the list. Specifically, in the *better-than framing* condition, participants read that “this pizzeria is ranked above [six/twelve] other restaurants on Yelp’s list. That is, [six/twelve] restaurants are ranked lower than this pizzeria.” In the *worse-than framing* condition, participants instead read that “this pizzeria is ranked behind [one/three] other restaurant(s) on Yelp’s list. That is, [one/three] restaurant(s) is/are ranked higher than this pizzeria.”

After reading the description of the pizzeria, participants rated it on three items: (a) how good they expected the pizzeria to be (1 = not particularly good to 7 = extremely good); (b) how much they thought they would enjoy the pizzeria if they were to eat there (1 = a little to 7 = a lot); and (c) how likely they would be to eat at the pizzeria (1 = very unlikely to 7 = very likely). As preregistered, we averaged these three items to create a composite evaluation measure ($\alpha = .86$). Finally, to measure whether participants viewed the quality of each ranked list differently, participants also evaluated the overall quality of the restaurants in the Yelp list (1 = very low to 7 = very high). After completing their ratings, participants reported their age and gender for demographic purposes.

9.2. Results and discussion

We conducted a 2 (List Length) X 3 (Framing) ANOVA on the evaluation measure. Consistent with the previous studies, there was a significant main effect of list length: Participants in the *shorter list* condition evaluated the pizzeria more positively ($M = 5.85$, $SD = 0.80$) than participants in the *longer list* condition ($M = 5.54$, $SD = 0.95$), $F(1, 892) = 28.84$, $p < .001$, $\eta^2 = .03$. The main effect of the *framing* condition was not significant, $F(2, 892) = 0.99$, $p = .37$, $\eta^2 = .002$.

Critically, as expected, there was a significant List Length X Framing interaction, $F(2, 892) = 6.34$, $p = .002$, $\eta^2 = .01$ (see Fig. 6). Probing the interaction, in the *control* condition, we replicated the effect: participants evaluated the shorter-list pizzeria more positively ($M = 5.89$, $SD = 0.80$) compared to the longer-list pizzeria ($M = 5.57$, $SD = 0.95$), $F(1, 892) = 9.55$, $p = .002$, $\eta^2 = .01$. Moreover, the effect was attenuated within the *better-than framing* condition ($M_{Shorter} = 5.75$, $SD = 0.78$ vs. $M_{Longer} = 5.69$, $SD = 0.86$), $F(1, 892) = 0.32$, $p = .57$, $\eta^2 < .001$. That is, calling attention to the list length by highlighting the number of ranked products the focal product was *better than* appeared to marginally reduce reliance on rank position alone, interaction: $F(1, 892) = 3.19$, $p = .075$, $\eta^2 = .004$. Additionally, the effect was marginally amplified within the *worse-than framing* condition ($M_{Shorter} = 5.92$, $SD = 0.83$ vs. $M_{Longer} = 5.36$, $SD = 1.01$), $F(1, 892) = 31.59$, $p < .001$, $\eta^2 = .03$, and interaction: $F(1, 892) = 3.13$, $p = .077$, $\eta^2 = .003$.⁶ That is, re-emphasizing that the pizzeria was *worse than* the top products on the list appeared to increase the reliance on rank position.

Study 6 extends the previous studies by showing that increasing the salience of—and thus shifting focus to—the number of alternatives that are ranked higher or lower than a focal option moderates the observed effect. Specifically, drawing attention to list length encourages people to use the bottom rank as a reference point in evaluations, leading them to shift their preferences towards the longer-list option.

Furthermore, participants perceived the overall quality of the lists to be similar, regardless of whether they viewed the shorter-list product (M

$= 5.15$, $SD = 0.97$) or the longer-list product ($M = 5.09$, $SD = 0.98$), $t(896) = 0.93$, $p = .35$, $d = 0.06$. This supports our claim that the effect does not simply result from an inference that the longer list is of lower quality than the shorter list. Along with results from several other studies where the two lists cannot contain the same items (e.g., due to location restrictions), this suggests that these effects are not driven by an inference about a difference in the overall quality of the two ranked lists. Nevertheless, we acknowledge that this quality inference could come into play in certain real-life situations, possibly amplifying the effect we observe in our studies.

10. Study 7

In the previous studies, we explored how people evaluate ranked options when provided with a focal option’s rank position and the total number of alternatives in the list. However, communicators may sometimes choose to provide options’ percentile ranking instead of the absolute rank (Sevilla et al., 2018). For example, companies may label employees’ relative performance based on their position within a distribution (Guralnik et al., 2004).

Thus, Study 7 investigated whether people evaluate ranked items differently when they are provided with the relative percentile rank (versus the absolute rank position). Our theory predicts that people should rely less on an option’s absolute rank in their evaluations when its relative rank is emphasized more; not only are percentile ranks more readily comparable across lists, but they also introduce firmly bounded scales (i.e., 1-100) which provide easy-to-use endpoints as salient reference points. Thus, we expected that highlighting options’ percentile rankings within their respective lists would attenuate the effect.

We tested this hypothesized moderation by having participants with managerial experience reward one of two employees based on their performance, which was conveyed by either the absolute rank position or the relative percentile ranking within their respective teams of different sizes.

10.1. Method

Eight hundred unique participants recruited from Prolific (Age: $M = 40.84$, $SD = 12.37$, 53.9% Female, 0.4% other/prefer not to say) completed an online study for payment. We restricted recruitment to participants on the platform who reported having “people management” as a decision-making responsibility at work.

Participants were asked to imagine that they were managers in a company faced with rewarding a bonus to one of two employees from two different teams. To help them make that decision, they were provided with each employee’s performance (as determined by their team manager) and the total size of their team.

Participants were randomly assigned to one of two between-subjects conditions: *absolute-ranking* or *percentile-ranking*. In the *absolute-ranking* condition, participants saw a table with both employees’ names, the number of people on their team (8 or 16) and their performance in the form of an absolute ranking within the team (2nd or 4th). In the *percentile-ranking* condition, participants saw a table again with both employees’ names and the number of people on their team (8 or 16), but their performance was instead conveyed by percentile rankings (25%). Notably, the absolute and percentile rankings are equivalent (i.e., being ranked 2nd out of 8 or 4th out of 16 is the same as being ranked at the 25th percentile on each team). We counterbalanced the presentation order of the two employees (see Fig. 7 for example stimuli).

Participants made a binary choice between which employee to reward with a bonus. Next, they indicated which employee and team they thought was of higher quality on two separate 6-point scales (both coded so that 1 = the larger employee/team and 6 = the smaller employee/team). Finally, participants reported basic demographics.

⁶ These contrast interactions were not preregistered; we believe the results are marginal because the study was sufficiently powered to test the omnibus interaction, but not these analyses.

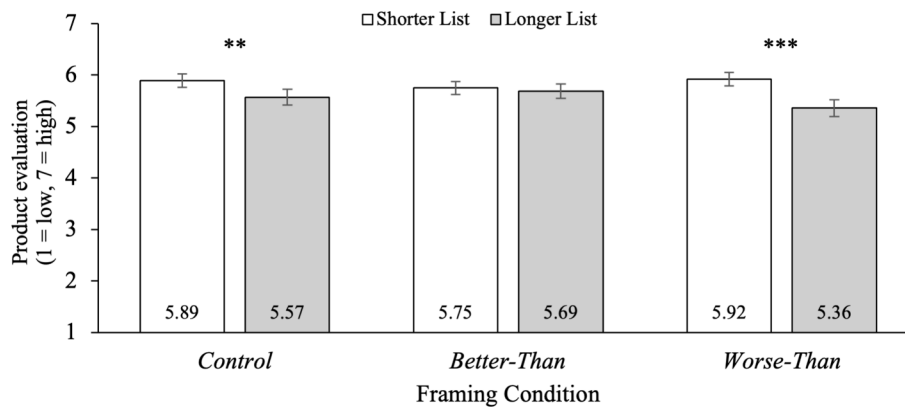


Fig. 6. Participants’ product evaluations in Study 6, based on whether the product was ranked within a shorter or longer list, and whether the description emphasized the number of other products that the focal product was better or worse than. Error bars represent 95% confidence intervals. Significance levels reflect the difference between list length conditions: *** $p < .001$, ** $p < .01$, * $p < .05$.

Employee Name	Number of employees in the team	Employee rank
Dave	8	Absolute ranking condition: 2 Percentile ranking condition: 25%
James	16	Absolute ranking condition: 4 Percentile ranking condition: 25%

Fig. 7. Employee information participants saw in Study 7. All participants saw the same information in the “Employee Name” and “Number of employees in the team” columns (content counterbalanced). The information in the “Employee rank” column varied by condition. In the absolute-ranking condition, participants saw each employee’s absolute rank (2 when in a team of 8 and 4 when in a team of 16). In the percentile-ranking condition, participants saw that both employees were at the 25th percentile.

10.2. Results and discussion

As expected, there was a significant effect of framing performance via an absolute or percentile ranking on participants’ choices of who to reward, $\chi^2(1, N = 800) = 36.83, p < .001$. Akin to the previous studies, participants who saw the rankings in absolute terms were more likely to reward the shorter-list employee (albeit marginally; choosing shorter list: 54.73%), $\chi^2(1, N = 402) = 3.59, p = .058$. In contrast, participants who saw the percentile rankings were more likely to give the bonus to the longer-list employee (choosing longer-list: 66.58%), $\chi^2(1, N = 398) = 43.78, p < .001$. In line with the binary-choice results, participants in the *absolute-ranking* condition evaluated the employee from the smaller team more positively ($M = 3.75, SD = 1.38$), vs. the midpoint (3.5): $t(401) = 3.58, p < .001, d = 0.18$, whereas participants in the *percentile-ranking* condition evaluated the employee from the larger team more positively ($M = 3.26, SD = 1.38$), $t(397) = 3.46, p < .001, d = 0.17$.

When examining overall team quality, responses from participants in the *absolute-ranking* condition did not significantly differ from the midpoint (3.5), indicating that these participants thought both teams were of similar quality ($M = 3.62, SD = 1.47, t(401) = 1.60, p = .11, d = 0.08$). This confirms that the effect is not driven by differing quality perceptions of the entire ranked list. In contrast, participants in the *percentile-ranking* condition viewed the larger team as being of higher quality ($M = 3.22, SD = 1.42$), $t(397) = 3.99, p < .001, d = 0.20$.

Study 7 finds that conveying rank information via percentiles, rather than absolute ranks, reduces decision-makers’ preference for the shorter-list option. In fact, the effect reversed: participants provided with percentile rankings evaluated the employee from the longer list more positively. This finding supports our theorizing that people consider all the information available to them—the option’s list length, rank position, and relative position—but assign different weights to these pieces of information. This conclusion is further supported by Supplemental Study 2 (MTurk, $N = 1,300$) in which we manipulated the salience of the relative position in the list by telling half of the

participants the options’ percentile rankings *in addition to* (as opposed to instead of) their absolute ranks. Replicating our main effect, participants who were shown only absolute ranks exhibited a strong preference for the shorter-list option, $t(650) = 10.97, p < .001, d = 0.43$. However, seeing both the rank position and the percentile ranking reduced this effect, $t(648) = 2.28, p = .023, d = 0.09$ (see [Web Appendix](#) for details).

This malleability of people’s evaluation of ranked options highlights an important practical implication: the way organizations choose to communicate rank information can influence people’s decisions.

11. General discussion

How do people evaluate ranking information? Across eight studies (total $N = 4,455$), we offer evidence that people prefer options from shorter lists (e.g., 2nd of 8) over those from longer lists (e.g., 4th of 16), even when they have equivalent percentile rankings (e.g., 25th percentile). This effect arose for a wide variety of realistic evaluations, including hiring decisions, employee reward allocations, and various product choices. We found that the effect is robust to numerous rank positions, list lengths, and percentiles, as well as to both choices between options ranked in different lists (i.e., joint evaluation) and judgments of a single presented option (i.e., separate evaluation).

We argue that this effect occurs because people predominantly base their judgments of a given option on its distance from the top-ranked alternative rather than on its distance from the bottom-ranked alternative or its relative percentile. In support of this mechanism, we found that when considering ranked options, people’s evaluations were more heavily influenced by rank position than list length, and greater reported consideration of rank position was associated with greater preference for shorter list options (Study 5). Furthermore, the effect was attenuated when we highlighted the number of alternatives that were inferior to the evaluated item (Study 6) and its percentile ranking (Study 7).

11.1. Theoretical implications

Rankings. Prior work on rankings has focused on how people’s evaluation of ranked options is affected by the way that information is communicated, testing attributes like the ranked product’s proximity to round number boundaries (Isaac, Brough, & Grayson, 2016; Isaac & Schindler, 2014), presentation format (Sevilla et al., 2018), and rank position over time (Pandey, Tripathi, & Jain, 2025). Our research builds on this literature by examining when and why people weigh certain information contained in ranked lists more than other information. Specifically, we explore a new research question: how do people evaluate options ranked within lists of different lengths, even when their relative percentile ranking is the same? In answering this question, we

document that people give greater consideration to an option's distance from the top than its distance from the bottom, thus weighing rank position more heavily than list length.

Notably, we show a preference for options ranked within shorter lists for both joint and separate evaluation. In so doing, our work diverges from other research on how evaluation context can affect people's preferences. For example, [Leclerc et al. \(2005\)](#) found that consumers rely most on absolute rank in separate evaluation, but consider other relevant information, like status, in joint evaluation (e.g., the 2nd best car from Toyota may be evaluated more positively than the 11th best car from Lexus when considered separately, but not together). Similarly, [Sevilla et al. \(2018\)](#) found that consumers are highly sensitive to the number representing the ranking of a product, causing them to neglect the format of the ranking (percentages or absolute numbers) in separate but not joint evaluation. That we find a robust effect across evaluation types underscores how our conceptualization of people's processing of ranking information differs from prior work: People do not necessarily neglect certain information, but rather consider all information while basing their judgments primarily on one cue (the distance of the ranked item from the top of the list). Furthermore, the generalizability of our findings to both of these evaluation contexts highlights the applicability of our results to real-life decisions.

Finally, we contribute to the limited literature on how rankings are used in organizational contexts, which has mostly investigated rankings' effects on which performance categories supervisors focus on when evaluating employees ([Cardinaels & Feichter, 2021](#)) and on how motivated or competitive employees are (e.g., [Garcia et al., 2006](#)). We expand this body of work by studying how managers interpret and make decisions based on employees' rank information across teams.

Numeric processing. By studying how people evaluate rankings, our work also extends the literature on processing of numeric information. Much of the research in this area has focused on probability judgments and risk assessments, finding that people often over-rely on easy-to-process information, like absolute numeric information, while neglecting harder-to-process details ([Denes-Raj et al., 1995](#); [Kahneman & Frederick, 2002](#); [Reyna & Brainerd, 2008](#); [Tversky & Kahneman, 1983](#)). Our research is the first to propose, and provide empirical evidence for, what may underlie this tendency in processing rank information: people's use of reference points.

Furthermore, while much work has explored how people's judgments are affected by salient numeric reference points (e.g., [Kahneman & Tversky, 1979](#)), it is unclear *which* value they would use when more than one reference point is available. Range theory, for instance, indicates that either endpoint conveyed in a ranked list—i.e., the top or bottom rank—can serve as a viable reference point (e.g., [Janiszewski & Lichtenstein, 1999](#); [Mellers & Cooke, 1994](#)). In this research, we show that when people evaluate rankings, they use both the top rank and the bottom rank as reference points, but their preferences are more heavily influenced by the focal option's distance from the top. Notably, this preference holds when the focal item's percentile ranking is worse than the 50th percentile, suggesting that people prefer to use the distance from the top reference point even when the bottom of the list is closer.

This work also adds to the ongoing debate of when people rely on numerosity versus other numeric cues in evaluations. On the one hand, when making magnitude judgments, people can attend more to “numerator” or foreground (vs. “denominator” or background) changes—e.g., feeling that 100 out of 100,000 is more likely than 1 out of 1,000 because the numerator of 100 is larger than the numerator of 1, a phenomenon sometimes referred to as “denominator neglect” ([Reyna & Brainerd, 2008](#); [Stone et al., 2003](#)). On the other hand, they may instead attend to other relevant numeric information, such as unit size (e.g., feeling that a one-week wait is longer than a seven-day wait because weeks are larger units; [Monga & Bagchi, 2012](#)). Similar to research on denominator neglect, our work demonstrates that people weigh foreground information (in this context, rank position) more heavily than background information (i.e., list length). Notably, our

work diverges from this prior research by showing that, beyond any tendency to simply neglect denominators, people evaluate ranked options primarily by their distance from the top-ranked item, leading them to prefer items from shorter lists even when lists are explicitly comparable and when rank and list length information are presented jointly.

11.2. Practical implications

As ranking information is pervasive and consequential for a wide variety of decisions (e.g., [Derakhshan et al., 2022](#); [Griffith & Rask, 2007](#); [Iñiguez et al., 2022](#); [Pandey et al., 2025](#); [Pope, 2009](#); [Ursu, 2018](#); [Varkevisser et al., 2012](#)), understanding how people approach such information is relevant for companies. From a managerial perspective, for instance, important organizational decisions like employees' career trajectories are often made by managers and other individuals who rely on rank information. Indeed, our studies demonstrate that people with real managerial experience are more likely to monetarily reward and even offer a position to an individual who was ranked in a smaller team than another person who had an equivalent relative ranking within a larger team. Thus, organizations should carefully consider this potential influence on their managers' decision-making, as team size (and the inherent absolute rank differences) may be unrelated to an employee's true quality. Organizations using forced or stacked ranking systems can take steps to mitigate the preference for employees ranked within shorter lists by reporting percentile rankings alongside or in place of absolute rank positions. Alternatively, organizations could harness this effect to improve outcomes for candidates. A career center or graduate program, for instance, could present recruiters with potential employees' rankings within smaller lists to make those candidates appear more attractive.

More broadly, our findings also have implications for how companies communicate rank information about themselves and their products. For example, given that we find that people generally place greater weight on rank position, companies may choose to publicize their absolute rank within narrower ranked lists (e.g., 2nd best pizzeria in Small Town, Wisconsin). However, we caution practitioners from over-relying on this strategy, given that, in certain contexts, using a longer list can improve evaluations ([Xie, Cai, & Bagchi, 2025](#)). In fact, doing so might even draw skepticism and backfire at its extremes (e.g., 2nd best pizzeria on this block; see [Leclerc et al., 2005](#)).

Notably, we identify practical ways to mitigate the effect. Specifically, prompting people to consider the number of alternatives that the focal option is ranked *better than* (Study 6) can decrease their reliance on the rank position. Furthermore, providing the percentile ranking explicitly can reduce or even reverse people's preference for the option ranked within the shorter list (Study 7). These findings have practical implications: organizations could make list length information more salient when managers consider such information, for example by highlighting the total number of ranked employees. Companies could also encourage individuals to place more weight on list length by providing “countdowns” of ranking information, i.e., rank positions in reverse order (e.g., 15 R&B albums, from worst to best), which could emphasize the total number of ranked items. Finally, companies could provide decision-makers (managers and consumers alike) with relevant distributions and percentile rankings to influence preferences.

11.3. Directions for future research

Distributions of list options. One could argue that the preference for shorter-list options documented in this research is “rational.” For instance, a product ranked 2nd of 8 options would on average have a higher expected quality than one ranked 4th out of 16 options assuming that both lists are created through random, independent, and identically distributed draws of values from the same normal distribution. However, this assertion hinges on assumptions about the ranked lists' distributions that are not clearly stated in our experiments. The assumption

of normality—or even that distributions are identical across lists—is unlikely to hold in many real-world situations. Consider one of our choice sets in Study 2a: a hiking trail from the complete list of options near Thurmont, MD versus near Syria, VA. A hiker considering these options would not know the underlying quality distributions of the trails for either location. Though it is possible that both lists are drawn from equivalent normal distributions, it is equally (if not more) plausible that they are not. For instance, the longer list could instead be drawn from a right-skewed distribution, making the longer-list option higher quality on average.

Setting this assumption aside, it is not obvious that people even consider these underlying distributions when making evaluations. That Study 3 replicates the preference for the shorter-list option despite that option having a worse relative ranking suggests that they may not. Moreover, even if people did try to use their beliefs about the quality distributions to determine preferences, applying this accurately would require statistical knowledge that typical decision makers are unlikely to possess.

Another interesting aspect of this topic is the possible disconnect between assumed and actual distributions. People may expect normal distributions in most contexts, but the true quality distribution may be something else entirely. For instance, one could imagine a skewed distribution in one case (e.g., restaurant quality within a town with many fast-food chains and few fine-dining options) and a uniform distribution in another (e.g., shirt quality across brands available within a department store). We hope future research can further explore the interplay between rankings, (assumed) quality distributions, and list length.

Discriminability. In many contexts, people show diminishing sensitivity to changes as they move away from a reference point, leading equal objective differences to feel larger nearer the reference and smaller farther away (e.g., Weber, 1850; Fechner, 1860). Applied to rankings, this notion of discriminability suggests that the subjective distance between the top-ranked item and the second-ranked item may feel larger than the distance between the second-ranked item and third-ranked item, and so forth. If so, the preference for shorter list items could arise because rank differences near the top of a shorter list are more discriminable and thus seem more meaningful. This alternative predicts that the preference for shorter lists should attenuate for worse ranking percentiles, where items are far from the top and incremental rank differences should feel relatively negligible. In contrast, Study 4 showed no attenuation of the preference for the shorter-list product for worse ranking percentiles compared to better ranking percentiles. Therefore, while discriminability could contribute to our effect, it seems unlikely to fully explain the robust preference for items ranked on shorter lists. Future work could more directly examine how the psychophysics of numeric processing affect ranking judgments.

Rank boundaries. Past research suggests that people mentally subdivide ranked lists at natural boundaries (e.g., top 10, top 15, etc.; Isaac et al., 2016) and that evaluations are more strongly affected by changes in ranks that cross a round number category (e.g., a shift from 11th to 10th compared to a shift from the 10th to 9th, Isaac & Schindler, 2014). This suggests that the effect we demonstrate might be amplified when the rank crosses one of those boundaries. For instance, when comparing an option ranked 2nd of 8 with one ranked 12th of 48, the latter option's rank crosses both the top 5 and top 10 boundaries and thus might be seen as even more inferior to the former (despite both having identical percentile rankings). For that reason, we primarily tested ranks that do not cross any typical round number boundaries (those ending in 5s or 0s), such as 2nd of 8 and 4th of 16. Nevertheless, future research could more systematically examine whether crossing rank boundaries increases people's preference for the shorter-list option.

The role of knowledge. Given that the effect of rank position is produced by a reliance on an easier-to-evaluate cue (i.e., the smaller distance from the top ranked option), individuals who rely on more deliberative thinking might also be less likely to demonstrate this effect. For one, those who have an abundance of expertise in the category being

assessed might rely less heavily on rank position to evaluate options in that category, as they could bring to bear other relevant information (e.g., sommeliers can take into account a wine's vintage and terroir). Another possibility is that those who are more numerate (i.e., have more facility with numeric information) might be less susceptible to the effect. That is, the effect occurs in part because people rely on the focal option's distance from #1 and do not perform the mental work to calculate percentile rankings. Those who are more numerate, however, might more automatically calculate percentile rankings, and thus rely less on rank position alone. Future research would benefit from investigating how these forms of knowledge might interact with reliance on rank position.

11.4. Conclusion

People often turn to ranking information to guide their evaluations. When decoding such information, we find that people focus more on the distance from the top-ranked alternative—thus placing greater weight on rank position—instead of the distance from the bottom rank—thus placing less weight on list length. Consequently, people exhibit a general preference for options ranked on shorter lists. This can lead to potentially suboptimal decisions (choosing a product that has a worse percentile ranking) and is swayed by framing effects (e.g., redundant information about how many alternatives the focal option is better or worse than). These findings offer theoretical insights into how people process complex numeric information, such as rankings, as well as practical insights for companies that use rankings internally in their employee evaluations and externally in communicating about their products and services.

CRedit authorship contribution statement

Uri Barnea: Writing – review & editing, Writing – original draft, Visualization, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Alice Moon:** Writing – review & editing, Writing – original draft, Visualization, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Jackie Silverman:** Writing – review & editing, Writing – original draft, Visualization, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Acknowledgments

The authors thank Joseph Nunes, Katherine L. Milkman, and Deborah Small for their helpful comments. This research was supported by the University of Delaware's Lerner College of Business and Economics' Faculty Research Grant, the Wharton Dean's Research Fund, and the Wharton Behavioral Lab.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.obhdp.2026.104492>.

References

- Anand, V., Webb, A., & Wong, C. (2023). Mitigating the demotivating effects of frequent unfavorable feedback about goal progress. *Journal of Management Accounting Research*, 35(2), 5–32.
- Baker, M., Pan, X., & Wurgler, J. (2012). The effect of reference point prices on mergers and acquisitions. *Journal of Financial Economics*, 106(1), 49–71.
- Cardinaels, E., & Feichter, C. (2021). Forced rating systems from employee and supervisor perspectives. *Journal of Accounting Research*, 59(5), 1573–1607.
- Chun, J. S., & Larrick, R. P. (2022). The power of rank information. *Journal of Personality and Social Psychology*, 122(6), 983.
- Chun, J. S., & Norton, M. I. (2024). Quantification of evaluations. *Journal of Experimental Social Psychology*, 110, Article 104558.

- Corvisio (2020). Stack ranking: All you need to know. *Medium*. Retrieved from: <https://medium.com/@corvisio/stack-ranking-all-you-need-to-know-a5339c27ad83>. Accessed March 25, 2025.
- Denes-Raj, V., Epstein, S., & Cole, J. (1995). The generality of the ratio-bias phenomenon. *Personality and Social Psychology Bulletin*, 21(10), 1083–1092.
- Derakhshan, M., Golrezaei, N., Manshadi, V., & Mirrokni, V. (2022). Product ranking on online platforms. *Management Science*, 68(6), 4024–4041.
- Dunn, J., Ruedy, N. E., & Schweitzer, M. E. (2012). It hurts both ways: How social comparisons harm affective and cognitive trust. *Organizational Behavior and Human Decision Processes*, 117(1), 2–14.
- Fechner, G. T. (1860). *Elemente der Psychophysik*, (Vol. 2).. Breitkopf and Härtel.
- Garcia, Stephen, M., & Avishalom Tor. (2006). Ranks and rivals: A theory of competition. *Personality and Social Psychology Bulletin*, 32(7), 970–982.
- Garcia, S. M., & Tor, A. (2007). Rankings, standards, and competition: Task vs. scale comparisons. *Organizational Behavior and Human Decision Processes*, 102(1), 95–108.
- Griffith, A., & Rask, K. (2007). The influence of the US News and World Report collegiate rankings on the matriculation decision of high-ability students: 1995–2004. *Economics of Education Review*, 26(2), 244–255.
- Guralnik, O., Rozmarin, E., & So, A. (2004). Forced distribution: Is it right for you? *Human Resource Development Quarterly*, 15(3), 339–345.
- Hu, B., & Simmons, J. P. (2024). Different methods elicit different belief distributions. *Journal of Experimental Psychology: General*.
- Íñiguez, G., Pineda, C., Gershenson, C., & Barabási, A.-L. (2022). Dynamics of ranking. *Nature Communications*, 13(1), 1646.
- Isaac, M. S., & Schindler, R. M. (2014). The top-ten effect: Consumers' subjective categorization of ranked lists. *Journal of Consumer Research*, 40(6), 1181–1202.
- Isaac, M. S., Brough, A. R., & Grayson, K. (2016). Is top 10 better than top 9? The role of expectations in consumer response to imprecise rank claims. *Journal of Marketing Research*, 53(3), 338–353.
- Janiszewski, C., & Lichtenstein, D. R. (1999). A range theory account of price perception. *Journal of Consumer Research*, 25(4), 353–368.
- Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. *Organizational Behavior and Human Decision Processes*, 51(2), 296–312.
- Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics of intuitive judgment: Extensions and applications*. New York: Cambridge University Press.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291.
- Kivetz, R., Netzer, O., & Srinivasan, V. (2004). Alternative models for capturing the compromise effect. *Journal of Marketing Research*, 41(3), 237–257.
- Kramer, S., Maas, V. S., & Van Rinsum, M. (2016). Relative performance information, rank ordering and employee performance: A research note. *Management Accounting Research*, 33, 16–24.
- Lattin, J. M., & Bucklin, R. E. (1989). Reference effects of price and promotion on brand choice behavior. *Journal of Marketing Research*, 26(3), 299–310.
- Leclerc, F., Hsee, C. K., & Nunes, J. C. (2005). Narrow focusing: Why the relative position of a good in its category matters more than it should. *Marketing Science*, 24(2), 194–205.
- Luca, M., & Smith, J. (2013). Salience in quality disclosure: Evidence from the U.S. News college rankings. *Journal of Economics & Management Strategy*, 22(1), 58–77.
- Mellers, B. A., & Cooke, A. D. (1994). Trade-offs depend on attribute range. *Journal of Experimental Psychology: Human Perception and Performance*, 20(5), 1055.
- Monga, A., & Bagchi, R. (2012). Years, months, and days versus 1, 12, and 365: The influence of units versus numbers. *Journal of Consumer Research*, 39(1), 185–198.
- Monga, A., May, F., & Bagchi, R. (2017). Eliciting time versus money: Time scarcity underlies asymmetric wage rates. *Journal of Consumer Research*, 44(4), 833–852.
- Neumann, N., Böckenholt, U., & Sinha, A. (2016). A meta-analysis of extremeness aversion. *Journal of Consumer Psychology*, 26(2), 193–212.
- Pacini, R., & Epstein, S. (1999). The relation of rational and experiential information processing styles to personality, beliefs, and the ratio-bias phenomenon. *Journal of Personality and Social Psychology*, 76(6), 972–987.
- Pandey, A., Tripathi, S., & Jain, S. P. (2025). Past imperfect or present perfect? How dynamic ranks influence consumer perceptions. *Journal of Marketing Research*, 62(1), 117–135.
- Parducci, A. (1968). The relativism of absolute judgments. *Scientific American*, 219(6), 84–93.
- Pope, D. G. (2009). Reacting to rankings: Evidence from “America's best hospitals”. *Journal of Health Economics*, 28(6), 1154–1165.
- Reyna, V. F., & Brainerd, C. J. (2008). Numeracy, ratio bias, and denominator neglect in judgments of risk and probability. *Learning and Individual Differences*, 18(1), 89–107.
- Rosch, E. (1975). Cognitive reference points. *Cognitive Psychology*, 7(4), 532–547.
- Santana, S., Thomas, M., & Morwitz, V. G. (2020). The role of numbers in the customer journey. *Journal of Retailing*, 96(1), 138–154.
- Seo, S. Y., Jo, S. C., & Lee, H. Y. (2019). Effect of adaption-level and range-frequency on subjective judgment. *Journal of Cognitive Science*, 20(1), 111–146.
- Sevilla, J., Isaac, M. S., & Bagchi, R. (2018). Format neglect: How the use of numerical versus percentage rank claims influences consumer judgments. *Journal of Marketing*, 82(6), 150–164.
- Shafer, D. S., & Zhang, Z. (2012). *Introductory statistics*. Washington, DC: Saylor Foundation.
- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Stewart, S. M., Gruys, M. L., & Storm, M. (2010). Forced distribution performance evaluation systems: Advantages, disadvantages and keys to implementation. *Journal of Management & Organization*, 16(1), 168–179.
- Stone, E. R., Sieck, W. R., Bull, B. E., Yates, J. F., Parks, S. C., & Rush, C. J. (2003). Foreground: Background salience: Explaining the effects of graphical displays on risk avoidance. *Organizational Behavior and Human Decision Processes*, 90, 19–36.
- Thomas, M., & Kyung, E. J. (2019). Slider scale or text box: How response format shapes responses. *Journal of Consumer Research*, 45(6), 1274–1293.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131.
- Tversky, A., & Kahneman, D. (1983). Extensional versus intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological Review*, 90(4), 293.
- Ursu, R. M. (2018). The power of rankings: Quantifying the effect of rankings on online consumer search and purchase decisions. *Marketing Science*, 37(4), 530–552.
- Urumutta Hewage, G. S., & He, X. (2022). The mysteries of mystery deals: The roles of purchase type (material vs. experiential purchases) and excitement neglect. *Journal of Experimental Psychology: Applied*, 28(1), 179.
- Varkevisser, M., van der Geest, S. A., & Schut, F. T. (2012). Do patients choose hospitals with high quality ratings? Empirical evidence from the market for angioplasty in the Netherlands. *Journal of Health Economics*, 31(2), 371–378.
- Vriend, T., Jordan, J., & Janssen, O. (2016). Reaching the top and avoiding the bottom: How ranking motivates unethical intentions and behavior. *Organizational Behavior and Human Decision Processes*, 137, 142–155.
- Wallace, S., & Etkin, J. (2024). Range goals as dual reference points. *Organizational Behavior and Human Decision Processes*, 14, Article 104340.
- Weber, E. H. (1850). In R. Wagner (Ed.), *Handwörterbuch der Physiologie*, (Vol. 3, pp. 481–588). Vieweg.
- Weingarten, E., Davidai, S., & Barasch, A. (2023). Who's on first? People asymmetrically attend to higher-ranked (vs. lower-ranked) competitors. *Journal of Experimental Social Psychology*, 104, Article 104405.
- Wijayanti, A., Sholihin, M., Nahartyo, E., & Supriyadi. (2024). What do we know about the forced distribution system: A systematic literature review and opportunities for future research. *Management Review Quarterly*, 1–42.
- Xie, V., Cai, F., & Bagchi, R. (2025). The rank length effect. *Journal of Marketing Research*, 62(1), 61–76.