Supplemental Material:
“Partitioning Menu Items to Nudge Single-item Choice”

Contents

1 Study S1: Comparison to a Control Condition

The studies in our main manuscript compare menus in which one category of items is individually listed while another category of items is grouped into a single listing. Here we report the results from a study that compares these menu partitions to a "control" condition in which all items are individually listed.

In our other studies, for a given choice menu we arbitrarily designate one category of items as focal (e.g., Group A vs. Group B). Because these designations are arbitrarily assigned, any comparison to a control condition is not meaningful. To circumvent this issue, in Study S1 we consult choice shares from the control condition and designate the category with majority choice share as focal. Doing so allows us to independently examine (relative to a control condition) the effect of grouping together more or less popular items into a single listing.

Method

We recruited a sample of 602 participants from CloudResearch Connect to participate in return for a flat cash payment (51% male, mean age = 40 years, age range: 18–81 years).

Participants responded to four choice trials in random order, and we used the same menus as in Studies 3–5. Because we did not know ex ante which item categories would capture the majority of choice share, we arbitrarily designated one category of items as Group A (and the other category as Group B) for each trial. Participants were randomly assigned to one of three conditions. In the *Group A Packed* treatment, participants viewed menus in which items from Group A were packed into a single listing while items from Group B were individually listed. In the *Group B Packed* treatment, participants viewed menus in which items from Group A were individually listed while items from Group B were packed into a single listing. Lastly, participants in the *All Unpacked* treatment viewed menus in which all items were individually listed (see Figure S1 for an example).

Like our other studies, participants selected only one option (by writing out their preference in an open text field). We also counterbalanced (at the participant-level) whether the Group A options were placed at the top or bottom of the menu.

Analysis Strategy

For each domain we use choice share from the control condition (i.e., all unpacked treatment) to designate the item category with majority choice share as focal. We then recode whether the participant chose an item from the focal or nonfocal category (0 = focal category not chosen, 1 = focal category chosen). We also recode conditions to focal category packed, nonfocal category packed, and all items unpacked.

Figure S1: Example of Menu Partition (Study S1)

Group A Packed

Imagine you win an all expenses paid trip to one country of your choice. Which of the following countries would you prefer to visit?

- China
- Japan
- Vietnam
- European country (your choice of either France, Germany, or Italy)

Which one country would you choose? ____________________

Group B Packed

Imagine you win an all expenses paid trip to one country of your choice. Which of the following countries would you prefer to visit?

- France
- Germany
- Italy
- Asian country (your choice of either China, Japan, or Vietnam)

Which one country would you choose? ____________________

All Unpacked

Imagine you win an all expenses paid trip to one country of your choice. Which of the following countries would you prefer to visit?

- France
- Germany
- Italy
- China
- Japan
- Vietnam

Which one country would you choose? ____________________

To first examine partition dependence, we restrict ourselves to the two treatments in which one category is packed into a single listing (i.e., we exclude the control condition) and examine choices as a function of menu partition. Similar to our other studies, we perform a logit regression that includes a predictor for menu partition, domain fixed effects, and participant clustered standard errors.

Next we perform a logit regression that includes separate indicator variables for each experimental treatment, with the control condition as our reference group (i.e., 0 = all unpacked vs. 1 = nonfocal group packed; 0 = all unpacked vs. 1 = focal group packed). Similar to before, the model includes domain fixed effects and participant clustered standard errors. We calculate the average marginal effect for each treatment (relative to the control), and then compare the absolute size of the two marginal effects using an equality of coefficients test.

Table S1: Percentage Choosing an Item from Focal Category (Study S1)

Domain	Focal Category	Nonfocal Category	(A) Nonfocal packed	(B) All unpacked	(C) Focal packed	Difference 1: (A – B)	Difference 2: (B – C)	Difference 1 – Difference 2
Vacations	Europe	Asia	61.9	56.6	42.1	5.9	14.5**	–9.2
Entertainment	Sports	Cultural	56.9	56.6	45.1	0.4	11.4*	–11.1
Weekend trip	West Coast	East Coast	65.1	56.6	43.7	8.5†	12.8**	–4.3
Desert	Cookies	Ice Cream	71.6	52.8	44.1	18.8***	8.7†	10.1
Combined			63.9	55.6	43.7	8.3**	11.9***	–3.6

Notes: The focal category represents the item category with the majority choice share in the "all unpacked" condition. In "Nonfocal Packed" participants viewed menus in which items from nonfocal category were packed into a single listing while items from focal category were individually listed. In "Focal Packed" participants viewed menus in which items from the focal category were packed into a single listing while items from nonfocal category were individually listed. In "All Unpacked" participants viewed menus in which all items were individually listed. "Difference 1" displays the increase in choice share (relative to all unpacked) for focal items when only nonfocal items are packed into a single listing. "Difference 2" displays the decrease in choice share (relative to all unpacked) for focal items when only such items are packed into a single listing. "Difference 3" displays the difference in size between Difference 1 and Difference 2. † $p \leq 0.100$, * $p \leq 0.050$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Results

First, we replicate the basic result of Study 1 when comparing the two partitioned menus. Across domains we observed a 20 percentage point increase in choosing unpacked items compared to packed items (see Table S1). In all four domains, choices reliably varied as a function of menu partition (all p-values < 0.001). Furthermore, the size of the menu partitioning effect was not reliably affected by whether the grouped option was positioned as the first or last listing on the menu ($p = 0.725$ for the interaction term between menu partition and grouped-item position).

We next examine how our two partitioned menus compare to a control condition in which all menu items are individually listed. Across domains we find that packing the nonfocal category (i.e., less popular items) into a single listing increased choice share for focal items by 8.3 percentage points relative to the control menu ($p = 0.002$; see the "difference 1" column of Table S1). By contrast, packing the focal category (i.e., more popular items) into a single listing decreased choice share for focal items by 11.9 percentage points ($p < 0.001$; see the "difference 2" column of Table S1). The absolute difference in choice share was not reliably different between the two experimental treatments, suggesting that the effect on choice was not reliably more pronounced when packing focal items than when packing nonfocal items ($p = 0.406$; rightmost column of Table S1). We observe a similar pattern of results when comparing logit coefficients, rather than marginal predicted probabilities.

2 Study S2: Replication of Study 5

Here we report the results of a direct replication of Study 5. For this study we did not preregister an analysis plan, but report the same set of analyses as those in Study 5 (which was preregistered).

Method

We recruited a sample of 400 participants from MTurk (55% male, mean age = 39 years, range: 19–75 years). The procedure was identical to that in Study 5.

After completing both choice and judgment blocks, participants responded to an 8-item measure of susceptibility to interpersonal influence (Bearden, Netemeyer, & Teel, 1989). Participants completed four items from the susceptibility to normative influence (NSI) subscale, rating their agreement with each statement on a 7-point scale from *strongly disagree* (-3) to *strongly agree* (3). We averaged the four items to create an index of NSI ($\alpha = 0.93$). Participants also completed four items from the susceptibility to informational influence (ISI) subscale. We averaged the four items to create an index of ISI ($\alpha = 0.90$). Across participants we counterbalanced whether the four items from the NSI came first or second, and also randomized the order of statements within each subscale. The correlation between the two subscales was 0.57.

Analysis Strategy

We perform the same analysis as in Study 5. We use logit regression when examining choices, and use OLS regression when examining judgments of item popularity. Similar to our previous studies, when pooling across trials we include domain fixed effects and cluster standard errors by participants.

Results

Preliminary Results We find a robust partitioning effect on choice. Across domains we observe a 33 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). As shown in Table S2, choices reliably varied as a function of the menu partition in all four domains (p-values < 0.001).

Consistent with an information-based account, menu partition also influenced inferences about descriptive social norms. On average, there was a 27 percentage point increase in judged popularity for unpacked items compared to packed items ($p < 0.001$). In all four trials, judgments reliably varied as a function of the menu partition (p-values < 0.001).

Table S2: Study S2 Results

Domain	Group A	Group B	Choices (%) Group A Unpacked	Group A Packed	Difference	Judgments (mean estimate) Group A Unpacked	Group A Packed	Difference
Vacations	Europe	Asia	83.8	53.5	30.2***	79.9	52.1	27.8***
Entertainment	Sports	Cultural	70.9	34.9	35.9***	74.6	52.3	22.3***
Weekend trip	West Coast	East Coast	70.6	48.7	21.8***	66.5	42.3	24.2***
Desert	Cookies	Ice Cream	75.3	30.6	44.7***	64.7	33.3	31.4***

Notes: "Difference" represents the difference in choice share (or for judgment blocks, the difference in average estimated percentages) for choosing an item from Group A when that category is unpacked versus packed. Any discrepancies in difference scores shown in the table are due to rounding error. $^{***}p \leq 0.001$.

In addition to these raw treatment effects, we also observe a significant interaction between menu partition and grouped-item position on choices as well as judgments of item popularity (p-values were 0.024 and 0.006 for the interaction terms on choices and judgments, respectively). For choices, the partitioning effect was larger when the packed category was placed at the bottom of the menu (39% marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (27% marginal effect; $p < 0.001$). For inferences, menu partitions again had a larger effect on judgments on item popularity when the packed category was placed at the bottom of the menu (30% marginal effect; $p < 0.001$) than when it was placed at the top of the menu (23% marginal effect; $p < 0.001$).

Menu partitions strongly influenced both choices and beliefs about item popularity, and we next examine the relationship between the two. Consistent with an information-based account, the correlation between choice and judged popularity was positive and significant ($r = 0.48$, $p < 0.001$ across participants and trials). The average correlation across trials and within participants was $r = 0.49$; the average correlation within trials and across participants was $r = 0.48$. Since a consumer's choices can affect their beliefs about how others choose (e.g., Ross, Greene, & House, 1977), we also examined if block order (i.e., choosing first and then estimating item popularity, or vice versa) influenced our results. Neither choices nor judgments of item popularity were reliably affected by the order of the task blocks (for the interaction between menu partition and block order, p-values were 0.232 for choices and 0.152 for judgments).

We next examined whether beliefs about descriptive social norms statistically mediate participant choice. To examine this, we performed Sobel-Goodman mediation tests using bootstrapped standard errors based on 10,000 resamples clustered at the participant level, along with domain fixed effects and adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data (Karlson, Holm, & Breen, 2012; Shrout & Bolger, 2002). Using this procedure we find a reliable mediation effect, with judgments of item popularity completely mediating the menu partitioning effect on choice, $b_{indirect} = 1.15$, SE = 0.12, 95% CI [0.92, 1.40]. Furthermore, we find a reliable indirect effect both when restricting the analysis to participants that provided choices first, $b_{indirect} = 0.87$, SE = 0.19, 95% CI [0.53, 1.26], and to participants that provided judgments of item popularity first, $b_{indirect} = 1.35$, SE = 0.17, 95% CI [1.04, 1.70].

Moderation Analysis We examined whether menu partitioning effects were reliably moderated by NSI scores, ISI scores, or both. Table S3 summarizes our results. To facilitate interpretation, we report unstandardized OLS coefficients but report p-values using logistic regression. Thus, coefficients can be interpreted as the percentage point increase in choosing from a given category of items as a linear function of an explanatory variable, and a positive coefficient for the interaction term represents the increase in menu partitioning effects as a linear function of the moderating variable. For instance, in Model 1 (column 1 of Table S3) the "partition" coefficient indicates a 36.8 percentage point difference in choosing unpacked items compared to packed items (when NSI scores are set to 0), and that the size of this partitioning effect increases by 3.6 percentage points for every 1-point increase in NSI scores (as represented by the "partition $\times$ NSI" interaction term).

We begin by examining moderation of overall partitioning effects by susceptibility to normative social influence (Model 1) and informational social influence (Model 2). Shown in Model 1, we find a positive interaction effect ($p = 0.035$), indicating that menu partitioning effects grew in size for those higher in susceptibility to normative social influence. Shown in Model 2, partitioning effects weakly grew in size as a function of ISI scores and were not statistically discernible from chance variation ($p = 0.577$). Thus, menu partitioning effects were more pronounced for those most susceptible to interpersonal influence, especially normative social influence.

We next turn to where in the causal chain that such moderation effects occur. Models 3 and 4 examine moderation for the first part of the causal chain (i.e., the *menu partition* $\longrightarrow$ *descriptive norm beliefs* pathway). We find a reliable interaction effect for NSI scores (Model 3: $p < 0.001$) but not for ISI scores (Model 4: $p = 0.206$). On average, the size of the "judged popularity" gap across menu partitions increased by 3 percentage points for every 1-point increase in NSI scores, and by 1.1 percentage points for every 1-point increase in ISI scores. Thus, participants high in susceptibility to interpersonal influence, especially normative social influence, were especially likely to view unpacked menu items as more frequently chosen by others.

Models 5 and 6 examine the second part of the causal chain (i.e., the *descriptive norm beliefs* $\longrightarrow$ *choice* pathway). We find a positive interaction between judgments of item popularity and NSI scores (Model 5: $p = 0.025$) as well as between judgments and ISI scores (Model 6: $p = 0.009$). Thus, participants higher in susceptibility to social influence also placed relatively greater weight on beliefs about item popularity when making a consumption decision.

Table S3: Study S2 Results

	moderation of basic effect (partition → choice)		moderation of pathway 1 (partition → judgment)		moderation of pathway 2 (judgment → choice)	
	(1)	(2)	(3)	(4)	(5)	(6)
Partition	0.368^{***}	0.327^{***}	0.295^{***}	0.261^{***}	0.096^{*}	0.096^{*}
	(0.033)	(0.028)	(0.016)	(0.013)	(0.034)	(0.034)
NSI	−0.017		-0.021^{***}		-0.032^{*}	
	(0.012)		(0.007)		(0.018)	
Partition × NSI	0.036^{*}		0.030^{***}			
	(0.017)		(0.008)			
ISI		−0.006		-0.016^{*}		-0.036^{*}
		(0.013)		(0.007)		(0.020)
Partition × ISI		0.010		0.011		
		(0.018)		(0.009)		
Item Popularity					0.870^{***}	0.798^{***}
					(0.058)	(0.058)
Item Popularity × NSI					0.057^{*}	
					(0.026)	
Item Popularity × ISI						0.071^{**}
						(0.029)
Domain Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1522	1522	1235	1235	1170	1170
Participants	396	396	399	399	394	394
R^2	.133	.130	.344	.339	.251	.252

Notes: OLS estimates with standard errors clustered at the participant-level. For models 1, 2, 5, and 6 the outcome variable was choosing an item from a target group (e.g., for the charity domain, 0 = not choosing an animal-based charity, 1 = choosing an animal-based charity). The outcome variable in models 3 and 4 was "Item Popularity," or the estimated percentage of other participants selecting an item from the focal group (rescaled to fall between 0 and 1). "Partition" indicates whether the menu was partitioned such that the focal group was packed or unpacked (0 = packed, 1 = unpacked). "NSI" and "ISI" represent a participant's susceptibility to normative social influence and informational social influence score, respectively. Scores on the NSI and ISI can range from –3 to 3, with higher numbers reflecting greater susceptibility. All models include domain fixed effects. For models 1, 2, 5, and 6 we use significance stars based on logit regressions. † $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

3 Study S3: Partitioning Effects for Negatively-valenced Options

Method

We recruited a sample of 201 participants from MTurk to participate in return for a flat cash payment (55% male, mean age = 34 years, age range: 19–84 years). Participants were asked to imagine performing one of six hour-long household chores. Roughly half of the participants responded to a menu with indoor activities unpacked (kitchen cleaning, vacuuming, folding and washing laundry) and the remaining half of participants responded to a menu with outdoor activities unpacked (cleaning rain gutters, lawn-mowing, weeding). As before, we counterbalanced the position of the packed/unpacked categories across participants.

Analysis Strategy

We compare the percentage of choices for an indoor chore across menu partitions using a two-sample test of proportions. To examine positioning effects (i.e., whether the position of the grouped category affects our results), we conduct a logistic regression similar to that used in other studies.

Results

We found a large partitioning effect for negatively-valenced options. Participants were more likely to choose indoor chores when those items were listed individually as opposed to when those same items were grouped together (82% vs. 44%; $z = 5.01$, $p < 0.001$). We also observe a significant interaction between menu partition and grouped-item position ($p = 0.043$ for the interaction term). That is, the size of the partitioning effect was reliably larger when the packed category was placed at the bottom of the menu (54 percentage point marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (22 percentage point marginal effect; $p = 0.026$).

4 Examples of Menu Partitions in Studies 2A–2C

Figure S2: Example of Menu Partition (Study 2A)

Animal Charities Unpacked

From the list below, choose one charitable organization to receive a $10 donation in your name:

- Humane Society
- Animal Legal Defense Fund
- Society for the Prevention of Cruelty to Animals (SPCA)
- An environment-based charity: your choice of either the Natural Resource Defense Council, Sierra Club, or Environmental Defense Fund

From the list above, please write down one organization to receive your donation: ___________________

Animal Charities Packed

From the list below, choose one charitable organization to receive a $10 donation in your name:

- Natural Resource Defense Council
- Sierra Club
- Environmental Defense Fund
- An animal-based charity: your choice of either the Humane Society, Animal Legal Defense Fund, or the Society for the Prevention of Cruelty to Animals (SPCA)

From the list above, please write down one organization to receive your donation: ___________________

Figure S3: Example of Menu Partition (Study 2B)

More Risky Gambles Unpacked

Below are six chance gambles, labeled A through F. Each gamble indicates the probability and amount of winning a cash prize; the remaining probability implies the chance of winning nothing.

Please indicate the gamble that you would most like to play for real money. Choose only one gamble.

- (A) 13% chance to win $75
- (B) 16% chance to win $65
- (C) 19% chance to win $55
- Less risky gambles: (D) 52% chance to win $25 (E) 65% chance to win $20 (F) 83% chance to win $15

Write in the letter of the gamble you would like to play: ___________________

More Risky Gambles Packed

Below are six chance gambles, labeled A through F. Each gamble indicates the probability and amount of winning a cash prize; the remaining probability implies the chance of winning nothing.

Please indicate the gamble that you would most like to play for real money. Choose only one gamble.

- (A) 52% chance to win $25
- (B) 65% chance to win $20
- (C) 83% chance to win $15
- More risky gambles: (D) 13% chance to win $75 (E) 16% chance to win $65 (F) 19% chance to win $55

Write in the letter of the gamble you would like to play: ___________________

Figure S4: Example of Menu Partition (Study 2C)

Less Generous Offers Unpacked

As Player A, you have been provisionally allocated an additional $10. Player B has not been allocated any additional money. Your decision is a simple one: decide what amount, if any, to transfer to Player B. Your choice can be anywhere from $0 to $10.

First, specify the range of money you would like to transfer:

☐ less than $0.50

☐ $0.50 to $0.99

☐ $1.00 to $1.49

☐ $1.50 to $1.99

☐ $2.00 or more

Please specify the exact amount you want to transfer to Player B: $ _______

Less Generous Offers Packed

As Player A, you have been provisionally allocated an additional $10. Player B has not been allocated any additional money. Your decision is a simple one: decide what amount, if any, to transfer to Player B. Your choice can be anywhere from $0 to $10.

First, specify the range of money you would like to transfer:

☐ less than $2.00

☐ $2.00 to $2.99

☐ $3.00 to $3.99

☐ $4.00 to $4.99

☐ $5.00 or more

Please specify the exact amount you want to transfer to Player B: $ _______

Notes: The figure shows an abbreviated set of instructions. Transfer ranges and exact transfer amounts were asked on separate pages.

5 Study 2B: Constructing Chance Gambles

According to prospect theory (Kahneman & Tversky, 1979), the value V of a prospect that pays x with probability p (and nothing otherwise) is given by:

$$V(x,p) = w(p)v(x) \tag{1}$$

where v represents the subjective value of payout x and w represents the weight of probability p on the attractiveness of a prospect. Since the gambles in Study 2B involve only gains, the value function takes the form $v(x) = x^{\alpha}$, where $\alpha > 0$ and measures the degree of declining marginal value in x as it increases in distance away from a reference point of \$0. The probability weighting function takes the form $w(p) = \delta p^{\gamma}/\delta p^{\gamma} + (1-p)^{\gamma}$, with $\delta > 0$ measuring the elevation of the weighting function (degree of overall risk aversion) and $\gamma > 0$ measuring the degree of curvature in the weighting function.

When constructing gambles for Study 2B, we set the three parameters above as follows: $\alpha = 0.88, \delta = 0.77$, and $\gamma = 0.69$. For the value function, we used the median value reported in Tversky and Kahneman (1992). For the probability weighting function, we used the median parameter values reported in Tversky and Fox (1995). From there, we constructed six gambles that resulted in certainty equivalents near \$10 (i.e., each gamble was expected to be as attractive as receiving a certain payment of roughly \$10). Certainty equivalents were calculated as $c(x,p) = v^{-1}(V(x,p)) = w(p)^{1/\alpha}(x)$.

6 Study 5: Supplemental Results

We find a robust partitioning effect on choice. Across trials we observe a 25 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (p-values < 0.001).

Consistent with an information-based account, menu partition also influenced inferences about descriptive social norms. On average, there was a 26 percentage point increase in judged popularity for unpacked items compared to packed items ($p < 0.001$). In all four trials, judgments reliably varied as a function of the menu partition (p-values < 0.001).

We fail to find a significant interaction between menu partition and grouped-item position on choices, but find a significant interaction on judgments of item popularity (p-values were 0.267 and 0.001 for the interaction terms on choices and judgments, respectively). Even though we only find a reliable interaction effect for judgments, the pattern is the same in both cases. For choices, the partitioning effect was larger when the packed category was placed at the bottom of the menu (27% marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (22% marginal effect; $p < 0.001$). For inferences, menu partitions had a larger effect on judgments of item popularity when the packed category was placed at the bottom of the menu (29% marginal effect; $p < 0.001$) than when it was placed at the top of the menu (23% marginal effect; $p < 0.001$).

Menu partitions strongly influenced both choices and beliefs about item popularity, and we next examine the relationship between the two. Consistent with an information-based account, the correlation between choice and judged popularity was positive and significant ($r = 0.44$, $p < 0.001$ across participants and trials). The average correlation across trials and within participants was $r = 0.42$; the average correlation across participants and within trials was $r = 0.45$. Since a consumer's choices can affect their beliefs about how others choose (e.g., Ross et al., 1977), we also examined if block order (i.e., choosing first and then estimating item popularity, or vice versa) influenced our results. Neither choices nor judgments of item popularity were reliably affected by the order of the task blocks (for the interaction between menu partition and block order, p-values were 0.430 for choices and 0.395 for judgments).

Lastly, we examined whether beliefs about descriptive social norms statistically mediate participant choice. In other words, does the menu partitioning effect reduce in size when we statistically adjust for beliefs about how frequently items are chosen by others? To examine this, we performed Sobel-Goodman mediation tests using bootstrapped standard errors based on 10,000 resamples clustered at the participant level, along with domain fixed effects and adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data (Karlson et al., 2012; Shrout & Bolger, 2002). Using this procedure we find a reliable mediation effect, with judgments of item popularity completely mediating the menu partitioning effect on choice, $b_{indirect} = 1.26$, SE = 0.09, 95% CI [1.09, 1.45]. Furthermore, we find a reliable indirect effect both when restricting the analysis to participants that provided choices first, $b_{indirect} = 1.08$, SE = 0.12, 95% CI [0.86, 1.34], and to participants that provided inferences of item popularity first, $b_{indirect} = 1.43$, SE = 0.14, 95% CI [1.19, 1.71].

7 Recoding Dropped Participants

Study 1 To prevent random or thoughtless responding, participants wrote out their preference in an open text field for each trial. If a participant's response contained the phrase "your choice of" (which would only occur if participants rewrote the entire packed response) then they received an error message and were prompted to choose a single option in order to continue. Besides this validation requirement, participants could write anything in the text field and some participants provided unusable responses. The number of unusable responses ranged from 51 to 87 depending on the trial. A subset of unusable responses were cases where participants wrote the entire packed category instead of a single item (e.g., a participant writing "an innovation-focused project" instead of specifying a specific project). Because omitting these responses biases results in favor of our hypothesis, here we examine the results when including *all* omitted responses and coding these observations to go *against* our hypothesis. Note that this represents a particularly conservative approach, as many unusable responses were responses that did not bias the results in a particular direction.

Table S4 provides a summary of the results when using this more conservative coding scheme. Across trials we observe a 33 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (all p-values ≤ 0.001) and in three cases the unpacked category captured the majority of market share. We also find an (unexpected) interaction between menu partition and grouped-item position ($p = 0.031$). We observe a larger partitioning effect when the packed category was placed at the bottom of the menu (39 percentage point marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (29 percentage point marginal effect; $p < 0.001$).

Study 2A Participants wrote out their preference in an open text field for each trial. For this study participants could write anything in the text field (i.e., there were no content validation requirements), and some participants provided unusable responses. The number of unusable responses ranged from 9 to 17 depending on the trial. A subset of unusable responses were cases where participants wrote the entire grouped category instead of a single item (e.g., a participant writing "an animal-based charity" instead of specifying a specific animal-based charity). Because omitting these responses biases results in favor of our hypothesis, we examine the results when including all omitted responses and coding these observations to go against our hypothesis.

Table S5 provides a summary of the results when using this more conservative coding scheme. Across trials we observe a 31 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (all p-values ≤ 0.001) and in two cases the unpacked category captured the majority of market share. Furthermore, our results were not reliably affected by whether the grouped category was positioned at the top or bottom of the menu ($p = 0.607$ for the interaction term between menu partition and grouped-item position).

Study 2B Participants wrote out their preference in an open text field for each trial. For this study participants could write anything in the text field (i.e., there were no content validation requirements). One participant provided an unusable response by writing "online betting" in the open text field. Here we examine the results when including this omitted response and coding it to go against our hypothesis.

Using this more conservative coding scheme, we again find evidence of single-item partition dependence for risky choice. Only 13% of participants selected a more risky gamble when those gambles were grouped into a single listing, compared to 29% when riskier gambles were individually listed ($z = 3.72$, $p < 0.001$). Furthermore, our results were not reliably affected by whether the grouped category was positioned at the top or bottom of the menu ($p = 0.943$ for the interaction term between menu partition and grouped-item position).

Study 2C Participants indicated their allocation range by directly clicking on the choice menu, so no data was excluded (i.e., all participants provided usable responses).

Study 3 Participants wrote out their preference in an open text field for each trial. We required participants to input only usable answers in order to proceed to the next trial. Participants who wrote out an unusable response (e.g., they listed an item not on the menu, or listed the entire packed category) were given an error message and prompted to rewrite their response. In an open comments section at the end of the study, 11 participants indicated that they had difficulty registering their preference. In the main text we include all responses in the analysis; here, we code all choices by these 11 participants to go against our hypothesis. Note that this recoding scheme only applies to choices and is not needed for judgments of item popularity; as such, we only report results below that are affected by our recoding scheme.

Table S6 provides a summary of the results when using this more conservative coding scheme. Across trials we observe a 23 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In three of the four trials, choices reliably varied as a function of the menu partition (p-values ranged from 0.430 to less than 0.001). Similar to the results reported in the main paper, we also find an interaction between menu partition and grouped-item position ($p = 0.012$). We observe a larger partitioning effect when the packed category was placed at the bottom of the menu (37 percentage point marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (11 percentage point marginal effect; $p = 0.115$). Lastly, using the same mediation strategy we report in the main paper, we also continue to find that the menu partitioning effect is statistically mediated by judgments about item popularity, $b_{indirect} = 0.78$, SE = 0.18, 95% CI [0.46, 1.18].

Study 4 Participants wrote out their preference in an open text field for each trial. Like Study 3, we also required participants to input only usable answers in order to proceed to the next trial. Participants who wrote out an unusable response were given an error message and prompted to rewrite their response. In an open comments section at the end of the study, 11 participants indicated that they had difficulty registering their preference. In the main text we include all responses in the analysis; here, we code all choices by these 11 participants to go against our hypothesis. Note that this recoding scheme only applies to choices and is not needed for judgments of item popularity; as such, we only report results below that are affected by our recoding scheme.

Table S7 provides a summary of the results using this more conservative coding scheme. Across trials and conditions, we observe a 28 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (p-values ≤ 0.010). Furthermore, our results were not reliably affected by whether the grouped category was positioned at the top or bottom of the menu ($p = 0.967$ for the interaction term between menu partition and grouped-item position).

Our primary prediction in Study 4 was that the menu partitioning effect would be attenuated (compared to our standard treatment) when participants first established their beliefs about descriptive social norms before being exposed to menu partitions. In the partition-first condition, we observed a 34 percentage point increase in choices for unpacked items as opposed to packed items, whereas the marginal effect decreased to 23 percentage points in the estimate-first condition ($p = 0.098$ for the interaction term between task order and menu partition on choices). As shown in Table S7, the decrease in partitioning effect is directionally consistent in all four trials.

We also conduct mediation tests using the same analysis strategy outlined in Study 4. Similar to the results reported in the main paper, judgments about an item's popularity reliably mediated the effect of menu partitions on choice for participants who were first exposed to the menu partition (i.e., partition-first condition), $b_{indirect} = 0.10$, SE = 0.05, 95% CI [0.02, 0.22], whereas judgments of popularity did not reliably mediate the partitioning effect on choice when participants first reported their estimates before exposure to the menu partitions (i.e., estimate-first condition), $b_{indirect} = -0.01$, SE = 0.07, 95% CI [−0.16, 0.13].

Study 5 Participants wrote out their preference in an open text field for each trial. This study used content validation requirements that were more permissive than Studies 3 and 4 (which only allowed participants to input one of the six items from a given menu in order to proceed), but more stringent than studies that allowed participants to input any response. Participants who tried to input an entire category option (e.g., "cultural event") were given a prompt that instructed them to select a specific item. Besides this validation requirement, participants could write anything in the text field and some participants provided unusable responses. The number of unusable responses ranged from 6 to 26 depending on the trial. Most of these responses were response items not listed on the menu (e.g., writing "South Korea" when the response options were France, Italy, Germany, China, Japan, and Vietnam). Here we examine the results when including all unusable responses and coding these observations to go against our hypothesis. Note that this recoding scheme only applies to choices and is not needed for inferences of item popularity; as such, we only report results below that are affected by our recoding scheme.

Table S8 provides a summary of the results when using this more conservative coding scheme. Across trials we observe a 21 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all trials choices reliably varied as a function of the menu partition (p-values < 0.001). Furthermore, our results were not reliably affected by whether the grouped category was positioned at the top or bottom of the menu ($p = 0.207$ for the interaction term between menu partition and grouped-item position). Also, using the same mediation strategy we report in the main paper, we continue to find that the menu partitioning effect is statistically mediated by judgments about item popularity, $b_{indirect} = 1.21$, SE = 0.09, 95% CI [1.05, 1.39].

We next examined whether menu partitioning effects were reliably moderated by susceptibility to normative social influence (NSI), susceptibility to informational social influence (ISI), or both. We used the same analysis strategy as in the main text, in which we report and interpret OLS coefficients but use p-values based on logistic regression. First looking at NSI, we find a positive and marginally significant interaction term ($p = 0.032$), indicating that menu partitioning effects increased by 3 percentage points for every 1 point increase in NSI scores. We find a similar but weaker interaction effect between condition and ISI ($p = 0.076$), indicating that menu partitioning effects increased by 2.6 percentage points for every 1 point increase in ISI scores. Thus, menu partitioning effects were more pronounced for those most susceptible to interpersonal influence, especially normative social influence.

We next turn to where in the causal chain, from menu partitions to inferences about item popularity or from inferences about item popularity to consumption decisions, that such moderation effects occur. Examining the first part of the causal chain (i.e., the *menu partition* $\longrightarrow$ *descriptive norm beliefs* pathway), we find a reliable interaction effect for both NSI scores ($p = 0.001$) and for ISI scores ($p = 0.039$). On average, the size of the "inference gap" across menu partitions increased by 1.9 percentage points for every 1-point increase in NSI scores, and by 1.3 percentage points for every 1-point increase in ISI scores. Thus, participants high in interpersonal influence were especially likely to view unpacked menu items as frequently chosen by others. Examining the second part of the causal chain (i.e., the *descriptive norm beliefs* $\longrightarrow$ *choice* pathway), we find a positive reliable interaction effect between inferences of item popularity and NSI scores ($p = 0.029$) but no reliable interaction effect between inferences and ISI scores ($p = 0.158$). Thus, participants high in normative social influence also placed greater weight on how frequently chosen an item was when making a consumption decision.

Study S1 Participants wrote out their preference in an open text field for each trial. We used the same content validation procedure as Study 5. The number of participants who provided unusable responses ranged from 4 to 14 depending on the trial. Some of these responses were response items not listed on the menu (e.g., writing "Singapore" when the response options were France, Italy, Germany, China, Japan, and Vietnam). Here we examine the results when including all unusable responses and coding these observations to go against our hypothesis. Note that this recoding scheme only applies to choices and is not needed for inferences of item popularity; as such, we only report results below that are affected by our recoding scheme.

Table S9 provides a summary of the results when using this more conservative coding scheme. First, we replicate the basic result when comparing the two partitioned menus. Across domains we observed an 18 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four domains, choices reliably varied as a function of menu partition (all p-values < 0.050). Furthermore, the size of the menu partitioning effect was not reliably affected by whether the grouped option was positioned as the first or last listing on the menu ($p = 0.673$ for the interaction term between menu partition and grouped-item position).

We next examine how our two partitioned menus compare to a control condition in which all menu items are individually listed. Across domains we find that packing the nonfocal category (i.e., less popular items) into a single listing increased choice share for focal items by 6.3 percentage points relative to the control menu ($p = 0.016$; see the "difference 1" column of Table S9). By contrast, packing the focal category (i.e., more popular items) into a single listing decreased choice share for focal items by 12.1 percentage points ($p < 0.001$; see the "difference 2" column of Table S9). The absolute difference in choice share was not reliably different between the two experimental treatments, suggesting that the effect on choice was not reliably more pronounced when packing focal items than when packing nonfocal items ($p = 0.191$; rightmost column of Table S9).

Study S2 Participants wrote out their preference in an open text field for each trial. We used the same content validation procedure as Study 5. The number of participants who provided unusable responses ranged from 11 to 32 depending on the trial. Some of these responses were response items not listed on the menu (e.g., writing "Thailand" when the response options were France, Italy, Germany, China, Japan, and Vietnam). Here we examine the results when including all unusable responses and coding these observations to go against our hypothesis. Note that this recoding scheme only applies to choices and is not needed for inferences of item popularity; as such, we only report results below that are affected by our recoding scheme.

Table S10 provides a summary of the results when using this more conservative coding scheme. Across trials we observe a 27 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all trials choices reliably varied as a function of the menu partition (p-values < 0.001). Similar to the results reported in the main paper, we also find an interaction between menu partition and grouped-item position ($p = 0.003$). We observe a larger partitioning effect when the packed category was placed at the bottom of the menu (35 percentage point marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (19 percentage point marginal effect; $p < 0.001$). Also, using the same mediation strategy we report in the main paper, we continue to find that the menu partitioning effect is statistically mediated by judgments about item popularity, $b_{indirect} = 1.08$, SE = 0.11, 95% CI [0.88, 1.32].

We next examined whether menu partitioning effects were reliably moderated by susceptibility to normative social influence (NSI), susceptibility to informational social influence (ISI), or both. We used the same analysis strategy as in the main text, in which we report and interpret OLS coefficients but use p-values based on logistic regression. We find positive but nonsignificant interactions between menu partitions and NSI/ISI scores on choice (p-values were 0.210 and 0.729, respectively).

We next turn to where in the causal chain, from menu partitions to inferences about item popularity or from inferences about item popularity to consumption decisions, that such moderation effects occur. Examining the first part of the causal chain (i.e., the *menu partition* $\longrightarrow$ *descriptive norm beliefs* pathway), we find a positive and reliable interaction effect for NSI scores ($p < 0.001$) but not for ISI scores (model 4: $p = 0.206$). On average, the size of the "inference gap" across menu partitions increased by 3.0 percentage points for every 1-point increase in NSI scores, and by 1.1 percentage points for every 1-point increase in ISI scores. Thus, participants high in interpersonal influence were especially likely to view unpacked menu items as frequently chosen by others. Examining the second part of the causal chain (i.e., the *descriptive norm beliefs* $\longrightarrow$ *choice* pathway), we find a positive and marginally significant interaction effect between inferences of item popularity and NSI scores ($p = 0.064$) and reliable interaction effect between inferences and ISI scores ($p = 0.019$). Thus, participants high in social influence also placed greater weight on how frequently chosen an item was when making a consumption decision.

Study S3 Participants wrote out their preference in an open text field. Participants could write anything in the text field (i.e., there were no content validation requirements), and 35 participants provided unusable responses. Here, we examine the results when including all omitted responses and coding these observations to go against our hypothesis.

Using this more conservative coding scheme, we again find that participants were more likely to choose indoor chores when those items were listed individually as opposed to when those same items were grouped together (68% vs. 54%; $z = 2.04$, $p = 0.042$). Furthermore, our results were not reliably affected by whether the grouped category was positioned at the top or bottom of the menu ($p = 0.697$ for the interaction term between menu partition and grouped-item position).

Table S4: Study 1 Results with Recoded Observations

Domain	Group A	Group B	Group A Unpacked	Group A Packed	Difference
Organizational Projects	Innovation-focused	Efficiency-focused	83.3	35.1	48.2***
Professional Development	Training Programs	Trade Conferences	78.8	51.0	27.8***
Team Building	Outdoor Activities	Indoor Activities	61.3	27.9	33.4***
Office Resources	Wellness Amenities	Convenience Amenities	64.5	40.0	24.5***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

Table S5: Study 2A Results with Recoded Observations

Domain	Group A	Group B	Group A Unpacked	Group A Packed	Difference
Charities	Animal	Environmental	84.5	56.8	28.7***
Movies	Science Fiction	Romantic Comedies	77.0	56.3	20.7***
Books	Behavioral Science	Life Science	78.0	36.2	41.8***
Magazines	Popular Science	World News	64.9	31.1	33.8***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

Table S6: Study 3 Results with Recoded Observations

Domain	Group A	Group B	Group A Unpacked	Group A Packed	Difference
Vacations	Europe	Asia	62.8	56.6	06.2
Entertainment	Sports	Cultural	57.3	36.7	20.6**
Weekend Trip	West Coast	East Coast	72.0	55.7	16.3*
Desert	Cookies	Ice cream	76.2	27.0	49.2***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{*}p \leq 0.050$, $^{**}p \leq 0.010$, $^{***}p \leq 0.001$.

Table S7: Study 4 Results with Recoded Observations

			Choose, then Estimate (choice %)			Estimate, then Choose (choice %)		
Domain	Group A	Group B	Group A Unpacked	Group A Packed	Diff.	Group A Unpacked	Group A Packed	Diff.
Vacations	Europe	Asia	70.3	54.3	15.9*	69.6	57.4	12.3
Entertainment	Sports	Cultural	73.3	42.5	30.8***	64.5	35.2	29.3***
Weekend trip	West Coast	East Coast	78.2	46.8	31.4***	70.3	57.5	12.7
Desert	Cookies	Ice cream	80.5	24.4	56.2***	73.5	35.4	38.1***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{*}p \leq 0.050$, $^{**}p \leq 0.010$, $^{***}p \leq 0.001$.

Table S8: Study 5 Results with Recoded Observations

Domain	Group A	Group B	Group A Unpacked	Group A Packed	Difference
Vacations	Europe	Asia	73.8	58.5	15.3***
Entertainment	Sports	Cultural	60.9	40.4	20.5***
Weekend Trip	West Coast	East Coast	67.3	50.2	17.2***
Desert	Cookies	Ice cream	66.9	35.4	31.5***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

Table S9: Study S1 Results with Recoded Observations

Domain	Focal Category	Nonfocal Category	(A) Nonfocal packed	(B) All unpacked	(C) Focal packed	Difference 1: (A – B)	Difference 2: (B – C)	Difference 1 – Difference 2
Vacations	Europe	Asia	60.0	56.8	42.1	3.2	14.7**	–11.5
Entertainment	Sports	Cultural	55.5	56.8	45.1	–1.3	11.7*	–12.9
Weekend trip	West Coast	East Coast	62.5	56.8	43.7	5.7	13.1**	–7.3
Desert	Cookies	Ice Cream	70.5	52.8	44.1	17.7***	8.7†	9.0
Combined			62.1	55.8	43.7	6.3*	12.1***	–5.7

Notes: The focal category represents the item category with the majority choice share in the "all unpacked" condition. In "Nonfocal Packed" participants viewed menus in which items from nonfocal category were packed into a single listing while items from focal category were individually listed. In "Focal Packed" participants viewed menus in which items from the focal category were packed into a single listing while items from nonfocal category were individually listed. In "All Unpacked" participants viewed menus in which all items were individually listed. "Difference 1" displays the increase in choice share (relative to all unpacked) for focal items when only nonfocal items are packed into a single listing. "Difference 2" displays the decrease in choice share (relative to all unpacked) for focal items when only such items are packed into a single listing. "Difference 3" displays the difference in size between Difference 1 and Difference 2. $^{\dagger}p \leq 0.100$, $^{*}p \leq 0.050$, $^{**}p \leq 0.010$, $^{***}p \leq 0.001$.

Table S10: Study S2 Results with Recoded Observations

Domain	Group A	Group B	Group A Unpacked	Group A Packed	Difference
Vacations	Europe	Asia	81.2	54.7	26.5***
Entertainment	Sports	Cultural	64.2	39.2	25.0***
Weekend Trip	West Coast	East Coast	67.7	50.2	17.4***
Desert	Cookies	Ice cream	71.1	32.7	08.5***

Notes: Columns report the percentage of participants choosing an item from Group A. "Difference" reports the difference in choice share for choosing an option from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

8 Trial Order Effects

For all studies with multiple trials, we report whether menu partitioning effects reliably increase or decrease as a function of trial order. We perform three analyses to examine this. We first run a logistic regression similar to those reported in the main paper, where we regress choice onto menu partition along with domain fixed effects and participant-clustered standard errors. This time we also add fixed effects (i.e., dummy variables) for trial order, and then perform a joint hypothesis test across all trial order terms. This is analogous to a main effects test when performing an Analysis of Variance, and examines whether trial order has a reliable influence on overall choice (i.e., the probability of choosing an item from category A). We then conduct a second logistic regression that includes interaction terms between menu partition and trial order terms, and perform a joint hypothesis test across all interaction terms. This is analogous to testing for an interaction effect in an Analysis of Variance, and examines whether the size of the menu partition effect reliably varies across trial order. Finally, we also test for single-item partition dependence when restricting ourselves to each participant's first trial, which removes the possibility of contamination or spillover effects from prior trials.

Study 1 We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 1.28$, $p = 0.73$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order (i.e., the size of the menu partitioning effect does not reliably vary with trial order), $\chi^2(3) = 1.30$, $p = 0.73$. Restricting the analysis to each participant's first trial, we observe a 59 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 13.34$, $p < 0.001$. As a point of comparison, across all trials we observe a 60 percentage point menu partitioning effect.

Study 2A We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 1.24$, $p = 0.74$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order, $\chi^2(3) = 4.73$, $p = 0.19$. Restricting the analysis to each participant's first trial, we observe a 39 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 7.58$, $p < 0.001$. As a point of comparison, across all trials we observe a 36 percentage point menu partitioning effect.

Study 3 We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 3.06$, $p = 0.38$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order, $\chi^2(3) = 2.80$, $p = 0.42$. Restricting the analysis to each participant's first trial, we observe a 41 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 6.56$, $p < 0.001$. As a point of comparison, across all trials we observe a 36 percentage point menu partitioning effect.

Study 4 First, we find a null effect of trial order on overall choices, $\chi^2(3) = 3.83$, $p = 0.28$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order (i.e., the size of the menu partitioning effect does not reliably vary with trial order; represented by the menu partition $\times$ trial order interaction), $\chi^2(3) = 0.93$, $p = 0.82$. Restricting the analysis to each participant's first trial, we observe a 35 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 6.73$, $p < 0.001$. As a point of comparison, across all trials we observe a 35 percentage point menu partitioning effect.

However, we do observe a small but statistically significant effect of trial order on the basic attenuation effect observed in Study 4 (represented by a three-way interaction between menu partition, timing of inferences, and trial order), $\chi^2(3) = 8.18$, $p = 0.04$. In particular, the interaction reported in Study 4, whereby partitioning effects are less pronounced when inferences are elicited before rather than after being exposed to menu partitions, becomes smaller as trial rounds progress. We observe a 28 percentage point attenuation effect when restricting the analysis to each participant's first trial, $z = 2.80$, $p = 0.005$. As a point of comparison, across all trials we observe a 12 percentage point attenuation effect, $z = 2.04$, $p = 0.041$.

Study 5 We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 3.62$, $p = 0.31$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order (i.e., the size of the menu partitioning effect does not reliably vary with trial order), $\chi^2(3) = 4.20$, $p = 0.24$. Restricting the analysis to each participant's first trial, we observe a 23 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 5.76$, $p < 0.001$. As a point of comparison, across all trials we observe a 25 percentage point menu partitioning effect.

Study S1 We first exclude the control condition and then perform the same analyses as outlined above. We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 1.04$, $p = 0.79$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order, $\chi^2(3) = 0.79$, $p = 0.85$. Restricting the analysis to each participant's first trial, we observe a 19 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 3.93$, $p < 0.001$. As a point of comparison, across all trials we observe a 20 percentage point menu partitioning effect.

Study S2 We do not observe reliable order effects. First, we find a null effect of trial order on overall choices, $\chi^2(3) = 1.23$, $p = 0.75$. More importantly, we observe a null effect when examining the interaction between menu partition and trial order, $\chi^2(3) = 4.55$, $p = 0.21$. Restricting the analysis to each participant's first trial, we observe a 40 percentage point difference in choosing items from unpacked categories compared to packed categories, $z = 8.70$, $p < 0.001$. As a point of comparison, across all trials we observe a 33 percentage point menu partitioning effect.

9 Restricting Analysis to First Block

Here we report results for Studies 3, 5, and S2 when restricting the analysis to only the first block that participants completed (choices from menus, or judgments of item popularity). We do this in order to eliminate concerns that judgments about item popularity in the first block may have influenced choices in the second block, or vice versa.

Study 3 Table S11 provides a summary of the results. First looking at choices, across trials we observe a 35 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In three of the four trials, choices reliably varied as a function of the menu partition (p-values ≤ 0.003). Unlike the results reported in the main text, when restricting our analysis to only the first block we do not observe a reliable interaction between menu partition and grouped-item position ($p = 0.192$ for the interaction term). Although the interaction is not statistically significant, the results are similar to those reported in the main text — the partitioning effect was larger when the packed category was placed at the bottom of the menu (45% marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (29% marginal effect; $p < 0.001$).

Menu partition also influenced inferences about descriptive social norms. On average, there was a 22 percentage point increase in judged popularity for unpacked items compared to packed items ($p < 0.001$). In all four trials, judgments reliably varied as a function of the menu partition (p-values ≤ 0.006). Similar to the results reported in the main text, we observe a reliable interaction between menu partition and grouped-item position ($p = 0.026$ for the interaction term). Menu partitions had a larger effect on judgments of item popularity when the packed category was placed at the bottom of the menu (27% marginal effect; $p < 0.001$) than when it was placed at the top of the menu (14% marginal effect; $p = 0.001$).

Study 5 Table S12 provides a summary of the results. First looking at choices, across trials we observe a 26 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (p-values < 0.001). Similar to the results reported in the main text, when restricting our analysis to only the first block we do not observe a reliable interaction between menu partition and grouped-item position ($p = 0.120$ for the interaction term).

Menu partition also influenced inferences about descriptive social norms. On average, there was a 25 percentage point increase in judged popularity for unpacked items compared to packed items ($p < 0.001$). In all four trials, judgments reliably varied as a function of the menu partition (p-values < 0.001). Unlike the results reported in the main text, we fail to find a reliable interaction between menu partition and grouped-item position ($p = 0.144$ for the interaction term).

Study S2 Table S13 provides a summary of the results. First looking at choices, across trials we observe a 30 percentage point increase in choosing unpacked items compared to packed items ($p < 0.001$). In all four trials, choices reliably varied as a function of the menu partition (p-values < 0.001). Unlike to the results reported above, when restricting our analysis to only the first block we do not observe a reliable interaction between menu partition and grouped-item position ($p = 0.396$ for the interaction term). Although the interaction is not statistically significant, the results are similar to those reported above — the partitioning effect was larger when the packed category was placed at the bottom of the menu (33% marginal effect; $p < 0.001$) compared to when it was placed at the top of the menu (27% marginal effect; $p < 0.001$).

Menu partition also influenced inferences about descriptive social norms. On average, there was a 25 percentage point increase in judged popularity for unpacked items compared to packed items ($p < 0.001$). In all four trials, judgments reliably varied as a function of the menu partition (p-values < 0.001). Similar to the results reported above, we observe a reliable interaction between menu partition and grouped-item position ($p = 0.030$ for the interaction term). Menu partitions had a larger effect on judgments of item popularity when the packed category was placed at the bottom of the menu (29% marginal effect; $p < 0.001$) than when it was placed at the top of the menu (22% marginal effect; $p = 0.001$).

Table S11: Study 3 Results (Restricted to First Block Only)

			Choices (%)			Judgments (mean estimate)		
Domain	Group A	Group B	Group A Unpacked	Group A Packed	Diff.	Group A Unpacked	Group A Packed	Diff.
Vacations	Europe	Asia	64.1	51.3	12.8	69.7	55.3	14.4**
Entertainment	Sports	Cultural	59.1	14.7	44.4***	77.1	60.5	16.6**
Weekend trip	West Coast	East Coast	85.0	55.3	29.7**	66.9	43.2	23.6***
Desert	Cookies	Ice cream	79.5	28.2	51.3***	62.0	28.9	33.1***

Notes: "Difference" represents the difference in choice share (or for judgment blocks, the difference in average estimated percentages) for choosing an item from Group A when that category is unpacked versus packed. Any discrepancies in difference scores shown in the table are due to rounding error. $^{**}p \leq 0.010$, $^{***}p \leq 0.001$.

Table S12: Study 5 Results (Restricted to First Block Only)

			Choices (%)			Judgments (mean estimate)		
Domain	Group A	Group B	Group A Unpacked	Group A Packed	Diff.	Group A Unpacked	Group A Packed	Diff.
Vacations	Europe	Asia	74.7	48.9	25.8***	77.9	56.8	21.1***
Entertainment	Sports	Cultural	60.9	36.2	24.7***	81.4	50.7	30.7***
Weekend trip	West Coast	East Coast	72.5	50.7	21.8***	62.2	41.0	21.2***
Desert	Cookies	Ice cream	69.3	37.1	32.2***	63.0	33.8	29.2***

Notes: "Difference" represents the difference in choice share (or for judgment blocks, the difference in average estimated percentages) for choosing an item from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

Table S13: Study S2 Results (Restricted to First Block Only)

			Choices (%)			Judgments (mean estimate)		
Domain	Group A	Group B	Group A Unpacked	Group A Packed	Diff.	Group A Unpacked	Group A Packed	Diff.
Vacations	Europe	Asia	83.0	59.3	23.7***	80.3	52.9	27.4***
Entertainment	Sports	Cultural	70.6	39.3	31.3***	72.4	53.7	18.8***
Weekend trip	West Coast	East Coast	74.4	49.6	24.8***	65.9	44.9	21.0***
Desert	Cookies	Ice cream	72.3	32.6	39.7***	66.5	33.3	33.2***

Notes: "Difference" represents the difference in choice share (or for judgment blocks, the difference in average estimated percentages) for choosing an item from Group A when that category is unpacked versus packed. $^{***}p \leq 0.001$.

10 Supplemental Mediation Analyses

Study 3 In Study 3, we test the hypothesis that beliefs about item popularity (i.e., descriptive social norms concerning consumption decisions) causally mediate menu partition effects. In the main text of the manuscript, we conduct Sobel-Goodman tests using bootstrapped standard errors based on 10,000 resamples clustered at the participant level, along with domain fixed effects and adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data (Karlson et al., 2012; Shrout & Bolger, 2002). Table S14 presents the decomposition of the total effect, indirect effect, and direct effect. As shown in the Table, this procedure returns a reliable indirect effect, with judgments of item popularity statistically mediating 51% of the menu partitioning effect.

We also report results using a potential outcomes approach to causal mediation (Imai, Keele, & Tingley, 2010). This procedure first fits two separate models, similar in spirit to the structural equation modeling approach above. First, using OLS, judgments of item popularity are regressed onto menu partition condition, along with domain fixed effects. Second, using probit regression,[1] choices are regressed onto menu partition condition and judgments of item popularity, along with domain fixed effects. Both models use participant-clustered standard errors. For each regression, we perform 10,000 simulations of model parameters from their sampling distribution based on the quasi-Bayesian Monte Carlo normal approximation (King, Tomz, & Wittenberg, 2000). During each draw of the simulation, the procedure also simulates the potential value of the mediator and the potential outcome given the simulated values of the mediator. The procedure then calculates the average causal mediation effect, the average direct effect, and the average total effect of the simulated values. Table S15 provides the average total effect, indirect effect, and direct effect from these simulations, along with a decomposition of the indirect and direct effects for each condition. As shown in the table, this procedure also returns a reliable indirect effect, with judgments of item popularity mediating 50% of the menu partitioning effect.

An advantage of the potential outcomes approach is that we can also conduct sensitivity tests of our observed mediation effect to potential violations of sequential ignorability (i.e., the degree that the error terms for the mediator and dependent variable are correlated; see Imai et al., 2010). Figure S5 plots the estimated average mediation effect as a function of the degree of potential confounding (extreme ρ values represent stronger violations of sequential ignorability). We find that the average mediation effect will be significant and in the expected direction so long as the degree of confounding (i.e., the correlation between the error terms of the mediator and dependent variables) is no greater than approximately 0.30.

[1] For the potential outcomes approach, we use a probit rather than logit regression to test for mediation. Although this approach is flexible enough to accomodate different nonlinear link functions, sensitivity analyses have currently only been worked out for probit regressions (Imai et al., 2010).

Study 4 In Study 4, we examine if the data are compatible with the hypothesis that beliefs about item popularity (i.e., descriptive social norms concerning consumption decisions) causally mediate menu partition effects, but only when participants are first exposed to menu partitions before establishing their beliefs about item popularity. In the main text of the manuscript, we conduct Sobel-Goodman tests using the same procedure outlined in Study 3. Table S16 presents the decomposition both in the partition-first and estimate-first conditions. As shown in the table, this procedure returns only a reliable indirect effect in the partition-first condition.

We also report results using the potential outcomes approach to causal mediation (Imai et al., 2010). We use a similar procedure to that outlined in Study 3, but conduct mediation tests separately for the partition-first and estimation-first conditions. Table S17 provides the average total effect, indirect effect, and direct effect from these simulations, along with a decomposition of the indirect and direct effects for each condition. As shown in the table, this procedure also returns a reliable average indirect effect only in the partition-first condition.

We also conduct a sensitivity test of our observed mediation effect in the partition-first conditions, since this is where we observe a significant indirect effect of menu partitioning. Figure S6 plots the estimated average mediation effect as a function of the degree of potential confounding (extreme ρ values represent stronger violations of sequential ignorability). We find that the average mediation effect in the partition-first conditions will be significant and in the expected direction so long as the degree of confounding (i.e., the correlation between the error terms of the mediator and dependent variables) is no greater than approximately 0.20.

Study 5 In the main text of the manuscript, we conduct Sobel-Goodman tests using bootstrapped standard errors based on 10,000 resamples clustered at the participant level, along with domain fixed effects and adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data (Karlson et al., 2012; Shrout & Bolger, 2002). Table S18 presents the decomposition of the total effect, indirect effect, and direct effect. As shown in the Table, this procedure returns a reliable indirect effect, with judgments of item popularity fully mediating the menu partitioning effect.

We also report results using the potential outcomes approach to causal mediation (Imai et al., 2010). Table S19 provides the average total effect, indirect effect, and direct effect from these simulations, along with a decomposition of the indirect and direct effects for each condition. As shown in the table, and similar to the results we report in the main text, we find a reliable indirect effect (and also a nonsignificant direct effect).

We also conduct a sensitivity test of our observed mediation effect. Figure S7 plots the estimated average mediation effect as a function of the degree of potential confounding (extreme ρ values represent stronger violations of sequential ignorability). We find that the average mediation effect in the partition-first conditions will be significant and in the expected direction so long as the degree of confounding (i.e., the correlation between the error terms of the mediator and dependent variables) is no greater than approximately 0.40.

Study S2 In the results reported above for Study S2, we conduct Sobel-Goodman tests using bootstrapped standard errors based on 10,000 resamples clustered at the participant level, along with domain fixed effects and adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data (Karlson et al., 2012; Shrout & Bolger, 2002). Table S20 presents the decomposition of the total effect, indirect effect, and direct effect. As shown in the Table, this procedure returns a reliable indirect effect, with judgments of item popularity mediating the menu partitioning effect.

We also report results using the potential outcomes approach to causal mediation (Imai et al., 2010). Table S21 provides the average total effect, indirect effect, and direct effect from these simulations, along with a decomposition of the indirect and direct effects for each condition. As shown in the table, we find a reliable indirect effect.

We also conduct a sensitivity test of our observed mediation effect. Figure S8 plots the estimated average mediation effect as a function of the degree of potential confounding (extreme ρ values represent stronger violations of sequential ignorability). We find that the average mediation effect in the partition-first conditions will be significant and in the expected direction so long as the degree of confounding (i.e., the correlation between the error terms of the mediator and dependent variables) is no greater than approximately 0.30.

Table S14: Karlson-Holm-Breen Decomposition (Study 3)

	Coefficient	Bootstrap S.E.	95% Confidence Interval
Total Effect	1.792	0.250	[1.291, 2.274]
Direct Effect	0.871	0.279	[0.320, 1.406]
Indirect Effect	0.921	0.199	[0.568, 1.335]

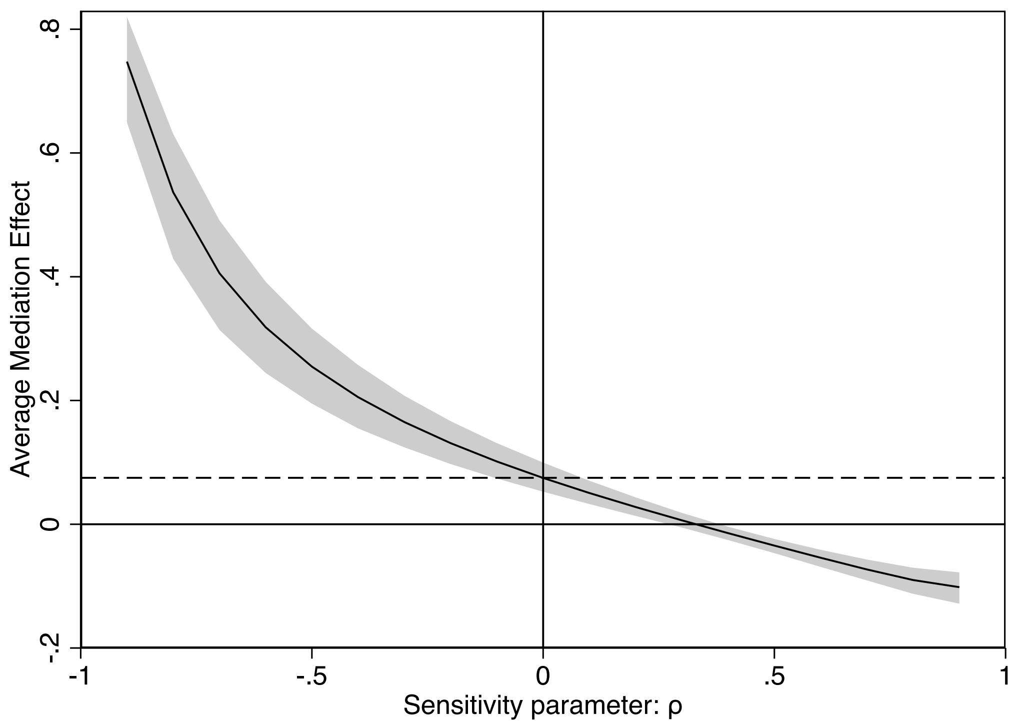
Notes: The total effect represents the coefficient for menu partition (1 = group A unpacked, 0 = group A packed) on menu choice (1 = item from group A selected, 0 = item from group A not selected) when judgments of item popularity are not included in the model. The direct effect represents the coefficient for menu partition when judgments of item popularity are included in the model, and the indirect effect represents the difference between the total and direct effect. All models use logit regression and include domain fixed effects, and make adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data. Bootstrapped standard errors and bias-corrected confidence intervals are calculated based on 10,000 resamples clustered at the participant level.

Table S15: Potential Outcomes Decomposition (Study 3)

	Mean	95% Confidence Interval
Total Effect	0.355	[0.264, 0.441]
Avg Direct Effect	0.177	[0.070, 0.288]
Avg Indirect Effect	0.178	[0.121, 0.235]
Direct Effect$_{packed}$	0.185	[0.074, 0.298]
Direct Effect$_{unpacked}$	0.170	[0.067, 0.278]
Indirect Effect$_{packed}$	0.185	[0.129, 0.242]
Indirect Effect$_{unpacked}$	0.170	[0.112, 0.229]

Notes: All estimates are expressed as the increase in probability that the participant selected an item from group A (1 = item from group A selected, 0 = item from group A not selected). "Total Effect" represents the effect of menu partition (1 = group A unpacked, 0 = group A packed) on choice when judgments of item popularity are not included in the model. "Direct Effect$_{packed}$" and "Direct Effect$_{unpacked}$" represent the direct effect when category A is packed or unpacked, respectively; "Avg Direct Effect" represents the average direct effect pooled across conditions. "Indirect Effect$_{packed}$" and "Indirect Effect$_{unpacked}$" represent the indirect effect when category A is packed or unpacked, respectively; "Avg Indirect Effect" represents the average direct effect pooled across conditions. All models include domain fixed effects and participant clustered standard errors. For each regression we perform 10,000 simulations of model parameters from their sampling distribution based on the quasi-Bayesian Monte Carlo normal approximation (King et al., 2000).

Figure S5: Sensitivity of Average Mediation Effect (Study 3)



Notes: Sensitivity analysis based on the potential outcomes mediation approach in Study 3. The solid line represents the estimated average mediation effect at different values of ρ, and error bands represent 95% confidence intervals. The dashed line represents the average mediation effect assuming no confounding exists ($\rho = 0$).

Table S16: KHB Decomposition (Study 4)

	Coefficient	Bootstrap S.E.	95% Confidence Interval
Partition-first (Choose, then Estimate)			
Total Effect	1.938	0.215	[1.513, 2.355]
Direct Effect	1.837	0.211	[1.461, 2.288]
Indirect Effect	0.100	0.050	[0.020, 0.216]
Estimate-first (Estimate, then Choose)			
Total Effect	1.427	0.247	[0.946, 1.916]
Direct Effect	1.444	0.236	[0.984, 1.910]
Indirect Effect	−0.013	0.079	[−0.172, 0.139]

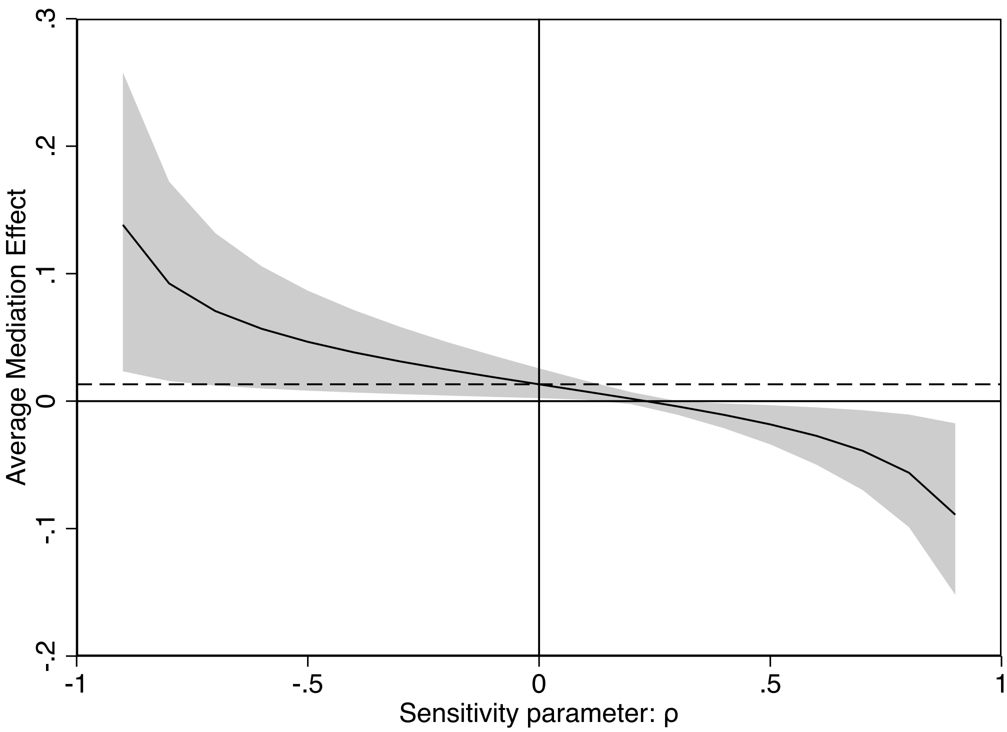
Notes: The total effect represents the coefficient for menu partition (1 = group A unpacked, 0 = group A packed) on menu choice (1 = item from group A selected, 0 = item from group A not selected) when judgments of item popularity are not included in the model. The direct effect represents the coefficient for menu partition when judgments of item popularity are included in the model, and the indirect effect represents the difference between the total and direct effect. All models use logit regression and include domain fixed effects, and make adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data. Bootstrapped standard errors and bias-corrected confidence intervals are calculated based on 10,000 resamples clustered at the participant level.

Table S17: Potential Outcomes Decomposition (Study 4)

	Mean	95% Confidence Interval
Partition-first (Choose, then Estimate)		
Total Effect	0.406	[0.326, 0.481]
Avg Direct Effect	0.387	[0.307, 0.464]
Avg Indirect Effect	0.019	[0.004, 0.038]
Direct Effect$_{packed}$	0.389	[0.309, 0.466]
Direct Effect$_{unpacked}$	0.384	[0.305, 0.461]
Indirect Effect$_{packed}$	0.021	[0.004, 0.042]
Indirect Effect$_{unpacked}$	0.017	[0.003, 0.033]
Estimate-first (Estimate, then Choose)		
Total Effect	0.279	[0.202, 0.354]
Avg Direct Effect	0.281	[0.210, 0.351]
Avg Indirect Effect	−0.003	[−0.031, 0.026]
Direct Effect$_{packed}$	0.281	[0.210, 0.351]
Direct Effect$_{unpacked}$	0.282	[0.210, 0.351]
Indirect Effect$_{packed}$	−0.003	[−0.033, 0.027]
Indirect Effect$_{unpacked}$	−0.002	[−0.029, 0.024]

Notes: All estimates are expressed as the increase in probability that the participant selected an item from group A (1 = item from group A selected, 0 = item from group A not selected). "Total Effect" represents the effect of menu partition (1 = group A unpacked, 0 = group A packed) on choice when judgments of item popularity are not included in the model. "Direct Effect$_{packed}$" and "Direct Effect$_{unpacked}$" represent the direct effect when category A is packed or unpacked, respectively; "Avg Direct Effect" represents the average direct effect pooled across conditions. "Indirect Effect$_{packed}$" and "Indirect Effect$_{unpacked}$" represent the indirect effect when category A is packed or unpacked, respectively; "Avg Indirect Effect" represents the average direct effect pooled across conditions. All models include domain fixed effects and participant clustered standard errors. For each regression we perform 10,000 simulations of model parameters from their sampling distribution based on the quasi-Bayesian Monte Carlo normal approximation (King et al., 2000).

Figure S6: Sensitivity of Average Mediation Effect (Study 4)



Notes: Sensitivity analysis based on the potential outcomes mediation approach in the partition-first conditions of Study 4. The solid line represents the estimated average mediation effect at different values of ρ, and error bands represent 95% confidence intervals. The dashed line represents the average mediation effect assuming no confounding exists ($\rho = 0$).

Table S18: Karlson-Holm-Breen Decomposition (Study 5)

	Coefficient	Bootstrap S.E.	95% Confidence Interval
Total Effect	1.173	0.112	[0.954, 1.393]
Direct Effect	-0.088	0.126	[-0.334, 0.159]
Indirect Effect	1.261	0.089	[1.086, 1.436]

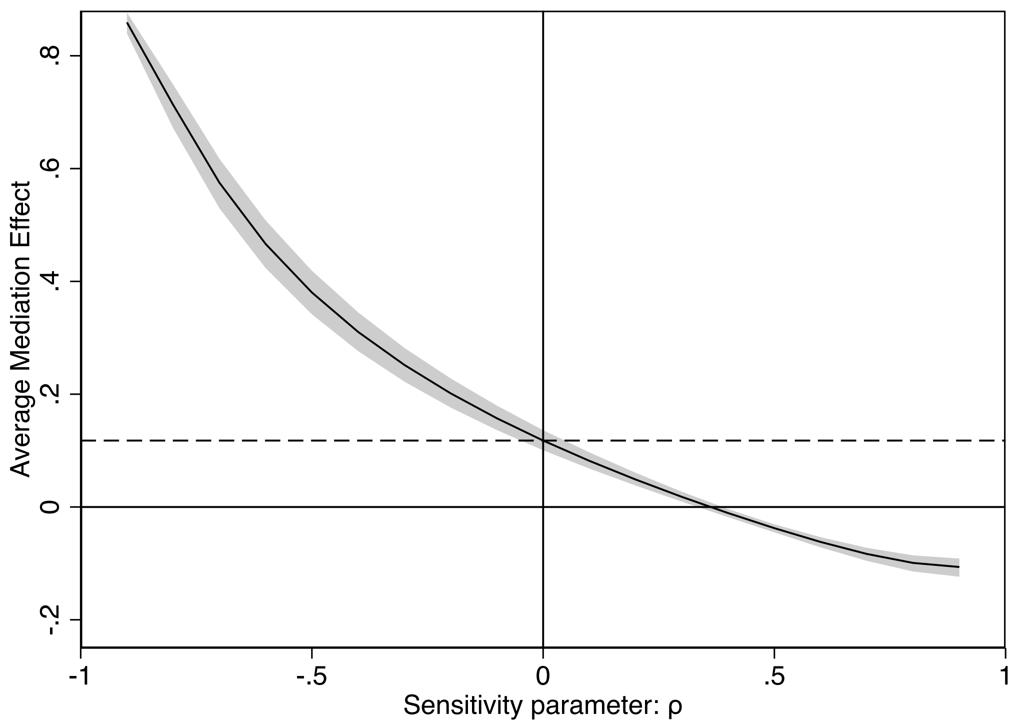
Notes: The total effect represents the coefficient for menu partition (1 = group A unpacked, 0 = group A packed) on menu choice (1 = item from group A selected, 0 = item from group A not selected) when judgments of item popularity are not included in the model. The direct effect represents the coefficient for menu partition when judgments of item popularity are included in the model, and the indirect effect represents the difference between the total and direct effect. All models use logit regression and include domain fixed effects, and make adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data. Bootstrapped standard errors and bias-corrected confidence intervals are calculated based on 10,000 resamples clustered at the participant level.

Table S19: Potential Outcomes Decomposition (Study 5)

	Mean	95% Confidence Interval
Total Effect	0.238	[0.195, 0.280]
Avg Direct Effect	-0.017	[-0.063, 0.031]
Avg Indirect Effect	0.254	[0.228, 0.281]
Direct Effect$_{packed}$	-0.017	[-0.066, 0.033]
Direct Effect$_{unpacked}$	-0.016	[-0.059, 0.030]
Indirect Effect$_{packed}$	0.254	[0.228, 0.280]
Indirect Effect$_{unpacked}$	0.255	[0.228, 0.283]

Notes: All estimates are expressed as the increase in probability that the participant selected an item from group A (1 = item from group A selected, 0 = item from group A not selected). "Total Effect" represents the effect of menu partition (1 = group A unpacked, 0 = group A packed) on choice when judgments of item popularity are not included in the model. "Direct Effect$_{packed}$" and "Direct Effect$_{unpacked}$" represent the direct effect when category A is packed or unpacked, respectively; "Avg Direct Effect" represents the average direct effect pooled across conditions. "Indirect Effect$_{packed}$" and "Indirect Effect$_{unpacked}$" represent the indirect effect when category A is packed or unpacked, respectively; "Avg Indirect Effect" represents the average direct effect pooled across conditions. All models include domain fixed effects and participant clustered standard errors. For each regression we perform 10,000 simulations of model parameters from their sampling distribution based on the quasi-Bayesian Monte Carlo normal approximation (King et al., 2000).

Figure S7: Sensitivity of Average Mediation Effect (Study 5)



Notes: Sensitivity analysis based on the potential outcomes mediation approach in Study 5. The solid line represents the estimated average mediation effect at different values of ρ, and error bands represent 95% confidence intervals. The dashed line represents the average mediation effect assuming no confounding exists ($\rho = 0$).

Table S20: Karlson-Holm-Breen Decomposition (Study S2)

	Coefficient	Bootstrap S.E.	95% Confidence Interval
Total Effect	1.557	0.172	[1.215, 1.896]
Direct Effect	0.409	0.180	[0.048, 0.760]
Indirect Effect	1.148	0.124	[0.921, 1.404]

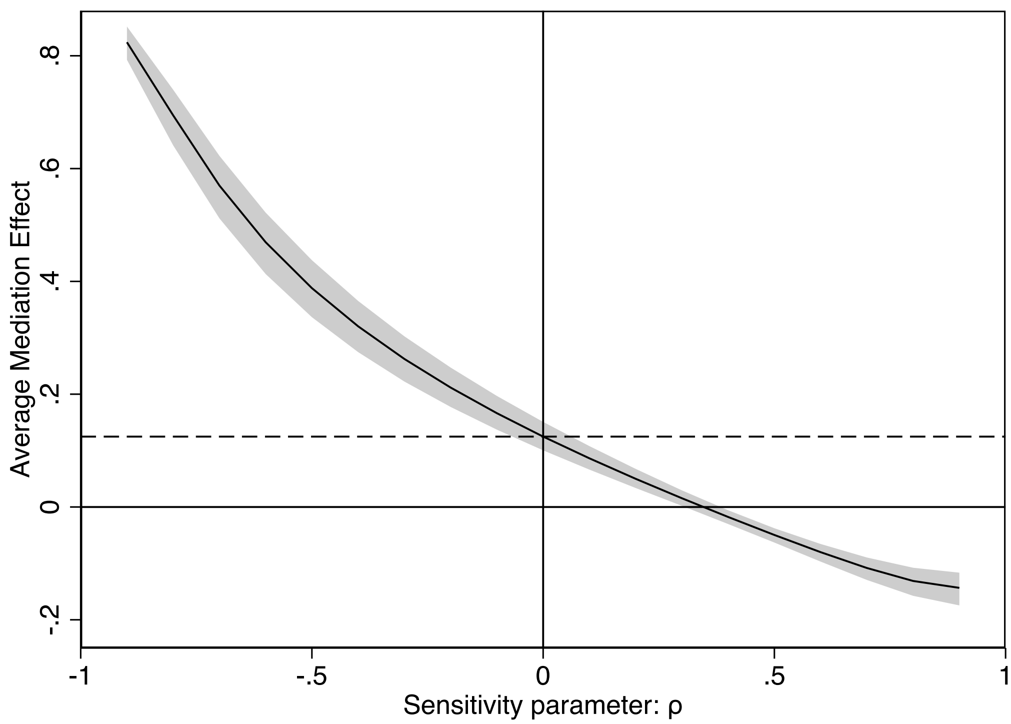
Notes: The total effect represents the coefficient for menu partition (1 = group A unpacked, 0 = group A packed) on menu choice (1 = item from group A selected, 0 = item from group A not selected) when judgments of item popularity are not included in the model. The direct effect represents the coefficient for menu partition when judgments of item popularity are included in the model, and the indirect effect represents the difference between the total and direct effect. All models use logit regression and include domain fixed effects, and make adjustments to the test procedure to account for potential scaling artifacts that can arise when comparing different models using binary choice data. Bootstrapped standard errors and bias-corrected confidence intervals are calculated based on 10,000 resamples clustered at the participant level.

Table S21: Potential Outcomes Decomposition (Study S2)

	Mean	95% Confidence Interval
Total Effect	0.311	[0.248, 0.371]
Avg Direct Effect	0.081	[0.014, 0.152]
Avg Indirect Effect	0.230	[0.192, 0.267]
Direct Effect$_{packed}$	0.086	[0.015, 0.161]
Direct Effect$_{unpacked}$	0.077	[0.013, 0.144]
Indirect Effect$_{packed}$	0.234	[0.198, 0.271]
Indirect Effect$_{unpacked}$	0.225	[0.186, 0.264]

Notes: All estimates are expressed as the increase in probability that the participant selected an item from group A (1 = item from group A selected, 0 = item from group A not selected). "Total Effect" represents the effect of menu partition (1 = group A unpacked, 0 = group A packed) on choice when judgments of item popularity are not included in the model. "Direct Effect$_{packed}$" and "Direct Effect$_{unpacked}$" represent the direct effect when category A is packed or unpacked, respectively; "Avg Direct Effect" represents the average direct effect pooled across conditions. "Indirect Effect$_{packed}$" and "Indirect Effect$_{unpacked}$" represent the indirect effect when category A is packed or unpacked, respectively; "Avg Indirect Effect" represents the average direct effect pooled across conditions. All models include domain fixed effects and participant clustered standard errors. For each regression we perform 10,000 simulations of model parameters from their sampling distribution based on the quasi-Bayesian Monte Carlo normal approximation (King et al., 2000).

Figure S8: Sensitivity of Average Mediation Effect (Study S2)



Notes: Sensitivity analysis based on the potential outcomes mediation approach in Study S2. The solid line represents the estimated average mediation effect at different values of ρ, and error bands represent 95% confidence intervals. The dashed line represents the average mediation effect assuming no confounding exists ($\rho = 0$).

11 Examining Proxies for Random Responding

An alternative explanation for single-item partition dependence is random responding over partitions. Randomly choosing over partitions, whether due to indifference or insufficient motivation to think through the decision, could lead to a bias for selecting unpacked options over packed ones. Note that such an explanation still presumes participants are partition dependent — random responding over *options* would not explain our results, as our menus are comprised of an equal number of packed and unpacked options in all studies.

To examine the random responding account more directly, we conduct an audit of all studies and examine if empirical proxies of random/thoughtless responding are associated with menu partitioning effects. The most direct proxy available in our data is participant completion times[2] — presumably participants who quickly completed the study are more likely to have responded hastily (i.e., in a thoughtless or random manner). When available, we also examine other empirical proxies of random/thoughtless responding (discussed below for each study).

The random responding account predicts that menu partitioning effects will be especially pronounced for those most likely to respond randomly. For participant completion times, this would imply a negative interaction effect between menu partitions and completion time on choice, i.e., the influence of menu partitions becomes larger as completion times become smaller. For each study we perform a logit regression where the dependent variable is choice, and our predictors are menu partition, participant completion times (or other proxy of hastiness), and the interaction between the two. For studies with a single trial we implement robust standard errors, and for studies with multiple trials we include domain fixed effects and implement participant-clustered standard errors.

Study 1 We do not find a reliable interaction between completion times and menu partitions, $b_{intx} = 0.05$, SE = 0.08, $z = 0.60$, $p = 0.546$. Figure S9 plots the marginal predicted probability of choosing an item from the focal category, as a function of menu partition and completion times. We note that the interaction term, while not statistically significant, is positive (represented by the slight “fanning out” pattern between the red and orange lines) and thus opposite to that predicted by the random responding account. As also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range in participant completion times.

Study 2A We find a reliable negative interaction between completion times and menu partitions, $b_{intx} = -0.37$, SE = 0.12, $z = 3.05$, $p = 0.002$. As seen in Figure S9, we observe a slight “fanning in” pattern (i.e., the size of the menu partition effect decreases as completion times increase) consistent

[2]All studies were carried out using Qualtrics survey software, which automatically records participant start and end times (in seconds). We use the difference between the two to calculate completion times.

with the random responding account. However, as also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range in participant completion times. Thus, we continue to observe reliable menu partitioning effects even among participants least likely to be random responders (i.e., those who took relatively longer to complete the study).

Study 2B We do not find a reliable interaction between completion times and menu partitions, $b_{intx} = -0.05$, SE = 0.16, $z = 0.29$, $p = 0.775$. As seen in Figure S9, the size of the menu partition effect remains relatively constant across the range of participant completion times.

Study 2C We do not find a reliable interaction between completion times and menu partitions, $b_{intx} = -0.04$, SE = 0.08, $z = 0.49$, $p = 0.626$. As seen in Figure S9, the size of the menu partition effect remains relatively constant across the range of participant completion times.

Study 3 We find a reliable positive interaction between completion times and menu partitions, $b_{intx} = 0.31$, SE = 0.10, $z = 2.99$, $p = 0.003$. As seen in Figure S9, we observe a slight "fanning out" pattern (i.e., the size of the menu partition effect increases as completion times increase) opposite to that predicted by the random responding account. As also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range in participant completion times.

Study 4 We find a marginally significant positive interaction between completion times and menu partitions, $b_{intx} = 0.12$, SE = 0.07, $z = 1.78$, $p = 0.075$. As seen in Figure S9, we observe a slight "fanning out" pattern (i.e., the size of the menu partition effect increases as completion times increase) opposite to that predicted by the random responding account. As also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range in participant completion times.

Study 5 We find a reliable negative interaction effect between completion times and menu partitions, $b_{intx} = -0.08$, SE = 0.04, $z = 2.12$, $p = 0.034$. As seen in Figure S9, we observe a slight "fanning in" pattern (i.e., the size of the menu partition effect decreases as completion times increase) consistent with the random responding account. However, as also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range in participant completion times. Thus, we continue to observe our predicted menu partitioning effect even among participants least likely to be random responders (i.e., those who took longer to complete the study).

For Study 5 we also examine two additional proxies of random/thoughtless responding, namely how well each Susceptibility to Normative Social Influence (NSI) and Susceptibility to Informational Social Influence (ISI) scores "hang together" for each participant. Participants were asked four similar items for the NSI and four similar items for the ISI, and we use the within-participant standard deviation in NSI/ISI ratings as a proxy for random responding — presumably participants who give inconsistent responses across conceptually similar questions are more likely to have responded hastily (i.e., in a thoughtless or random manner). We perform a similar logit regression as before but replace participant completion times with our inconsistent responding scores. Using inconsistency in NSI scores, we do not find a reliable interaction between inconsistent responding and menu partitions, $b_{intx} = -0.05$, SE = 0.16, $z = 0.28$, $p = 0.781$. Using inconsistency in ISI scores, we again do not find a reliable interaction between inconsistent responding and menu partitions, $b_{intx} = 0.06$, SE = 0.16, $z = 0.40$, $p = 0.687$.

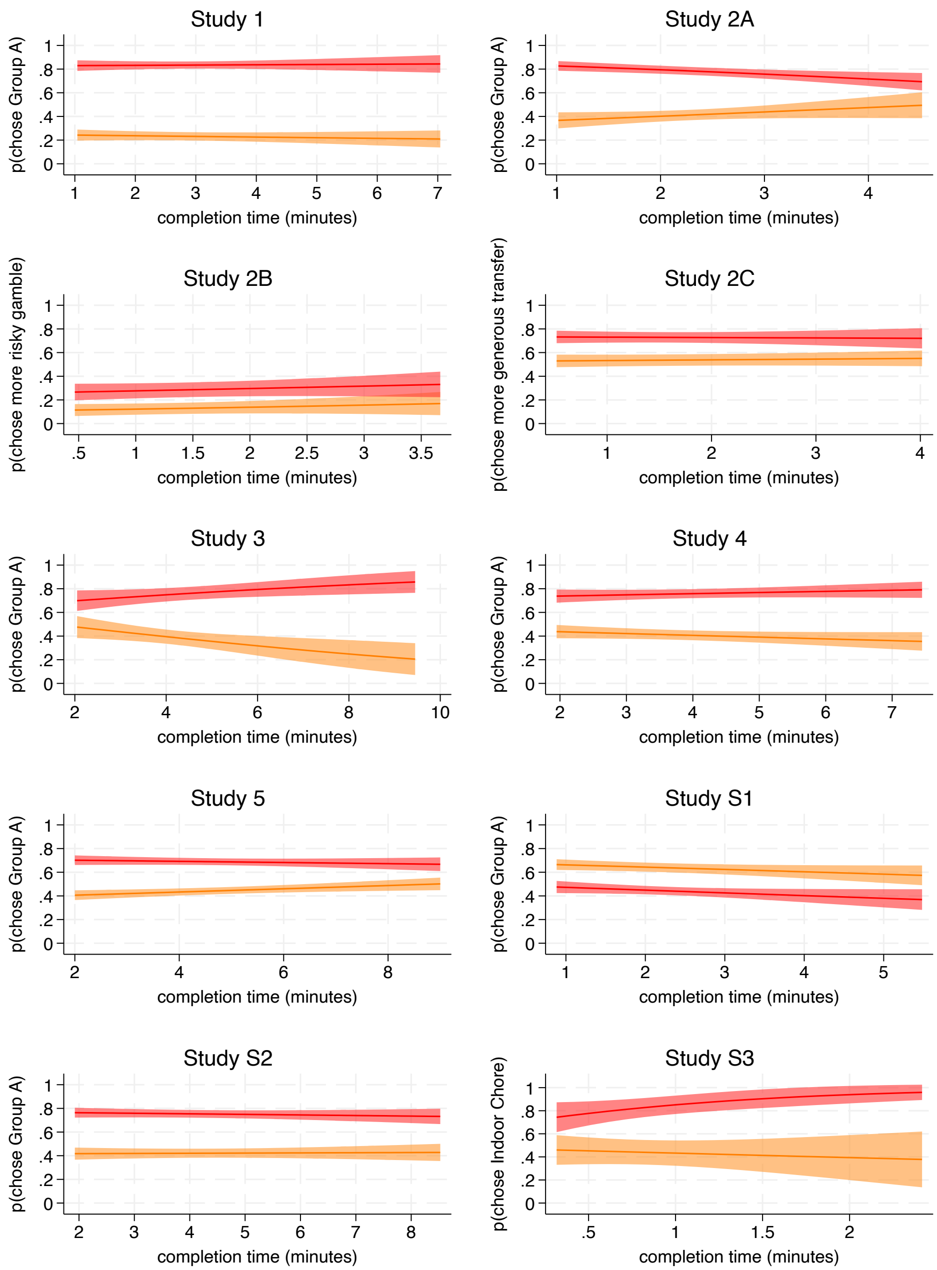
Study S1 For Study S1 we exclude the control condition and then perform the same analysis as before. We do not find a reliable interaction effect between completion times and menu partitions, $b_{intx} = -0.01$, SE = 0.07, $z = 0.16$, $p = 0.877$. As seen in Figure S9, the size of the menu partition effect remains relatively constant across the range of participant completion times.

Study S2 We do not find a reliable interaction effect between completion times and menu partitions, $b_{intx} = -0.03$, SE = 0.05, $z = 0.61$, $p = 0.543$. As seen in Figure S9, the size of the menu partition effect remains relatively constant across the range of participant completion times.

For Study S2 we use inconsistency in NSI/ISI scores as an additional proxy of random responding (following the same logic as in Study 5). We perform a similar logit regression as before but replace participant completion times with our inconsistent responding scores. Using inconsistency in NSI scores, we do not find a reliable interaction between inconsistent responding and menu partitions, $b_{intx} = 0.09$, SE = 0.23, $z = 0.39$, $p = 0.695$. Using inconsistency in ISI scores, we again do not find a reliable interaction between inconsistent responding and menu partitions, $b_{intx} = -0.34$, SE = 0.22, $z = 1.55$, $p = 0.121$.

Study S3 We find a reliable positive interaction effect between completion times and menu partitions, $b_{intx} = 1.15$, SE = 0.56, $z = 2.06$, $p = 0.039$. As seen in Figure S9, we observe a slight "fanning out" pattern (i.e., the size of the menu partition effect increases as completion times increase) opposite to that predicted by the random responding account. As also seen in the figure, the menu partition effect remains large and statistically significant (as the two confidence bands do not overlap) throughout the range of participant completion times.

Figure S9: Menu Partition Effects and Participant Completion Times



Notes: Plots the marginal predicted probabilities of choosing from the focal category (e.g., choosing an item from Category A) in each study, as a function of menu partition and participant completion times. Red lines and 95% confidence bands plot predicted probabilities when the focal category is unpacked, whereas orange lines and 95% confidence bands plot predicted probabilities when the focal category is packed. The x-axis is participant completion times, in minutes. Predicted probabilities are plotted across the 5th to 95th percentile in participant completion times.

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