

## **Using Filtered Questions to Improve Rating Scales.**

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- In commercial market research we are constantly engaged in assignments where we are trying to predict desirable consumer behavior based on how customers rate our clients' products and services.

**By measuring ...**

**Product / Service Rating  
(independent variables)**

**Customer service**

**Interest rates**

**Convenience**

**We try to predict ...**

**Desired Behavior  
(dependent variables)**

**Loyalty**

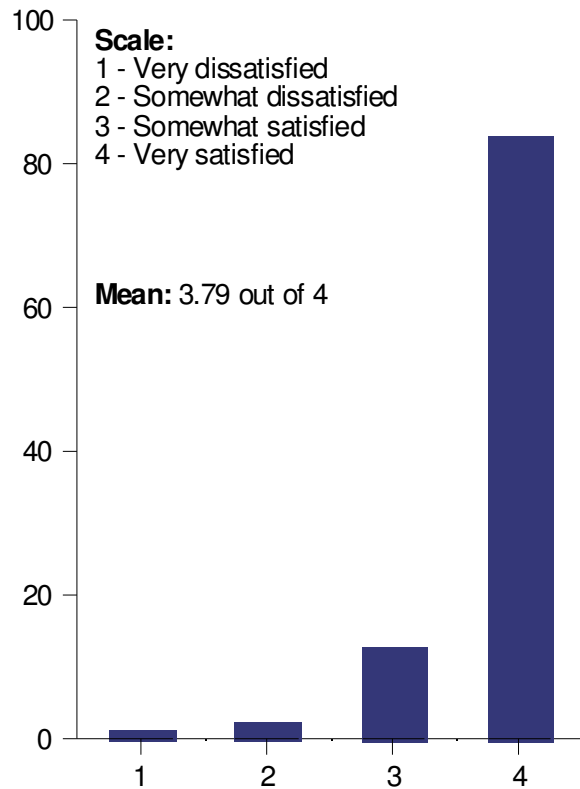
**Cross-sell**

**Likelihood to recommend**

- **Limitation of Most Rating Scales:**
- **Most conventional rating scales used to measure independent variables skew negatively (Westbrook, 1980, Peterson and Wilson 1992, Devlin, Dong and Brown, 1994). In other words, most respondents give overwhelmingly positive responses to ratings of products and services.**

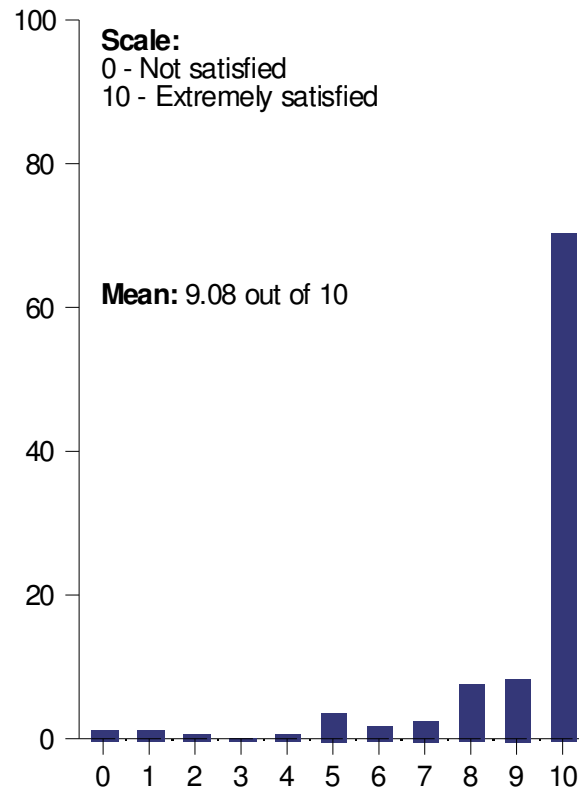
### Insurance Company

Satisfaction with the friendliness of the customer service representative?



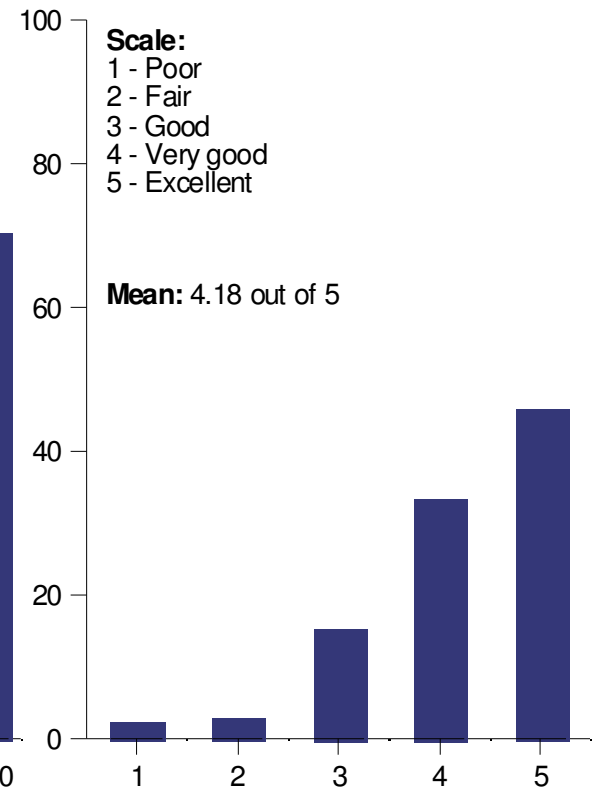
### Employment Service

Satisfaction with how you were treated by the employment counselor?



### Hospital

Perceived quality of nursing care?



- **Our Objective is Quite Modest:**
- **To try and develop a rating scale that anchors respondents' responses closer to the center of the scale.**
  - **We believe that consumers' service experiences are more normally distributed than many rating scales would indicate, because not everyone gets exceptional service.**
  - **We want a more meaningful way to show our clients where there is opportunity for improvements and demonstrate how relative improvements in certain areas will result in more or less impact on desired consumer behaviors.**

■ **Our Presentation Discusses:**

- **The academic literature and source material we used to develop our rating scale.**
- **The results of a split-half experiment where we tested for differences using filtered and unfiltered questions.**
- **The advantage of using filtered questions.**

- **We Want to Try and Avoid Introducing Any Source of Systematic Error.**
  - **Avoid the types of questions that may result in acquiescence (Schuman and Presser, 1981, Ray, 1983, Bearden, Netemeyer and Mobley, 1993).**
    - **Agree / disagree**
    - **True / false**
    - **Yes / no**

- **We Want to Maximize Information Gain While Avoiding Any Decrease in Precision.**
- **The research suggests that bipolar rating scales with 7 points (Miller, 1956, Matell and Jacoby, 1971, Withey, 1976) and unipolar rating scales with 5 points (Wickman and Warneryd, 1990) yield the highest reliability.**

**How likely are you to recommend your bank?**

5. Definitely would recommend
- 4.
- 3.
- 2.
1. Not likely to recommend

**How would you rate your bank in terms of interest rates?**

7. Excellent
- 6.
- 5.
- 4.
- 3.
- 2.
1. Very poor

■ **We Want to Maximize Interpersonal Comparability.**

- **All responses in a rating scale should be labeled with words (Finn, 1972, Zaller, 1988, Alwin and Krosnick, 1991, Krosnick and Berent, 1993). This reduces the ambiguity of meaning and maximizes interpersonal comparability. Also, research suggests that respondents prefer labels (Dickinson and Zellinger, 1980).**

**How likely are you to recommend your bank?**

5. Definitely would recommend
4. Probably would recommend
3. Somewhat likely to recommend
2. Not very likely to recommend
1. Not at all likely to recommend

**How would you rate your bank in terms of interest rates?**

7. Excellent
6. Very good
5. Good
4. Average
3. Below average
2. Poor
1. Very poor

■ **We Want to Maximize Meaningful Differentiation.**

- **Use extreme labels at the ends of a rating scale. More extreme values at both ends of the scale yield better differentiation (Krosnick, forthcoming).**

**How likely are you to recommend your bank?**

5. Definitely would recommend
4. Probably would recommend
3. Somewhat likely to recommend
2. Not very likely to recommend
1. Not at all likely to recommend

**How would you rate your bank in terms of interest rates?**

7. **Exceptional** ←
6. Very good
5. Good
4. Average
3. Below average
2. Poor
1. **Dreadful** ←

■ **Examples of the Types of Questions Used in Our Study:**

- **How would you rate your bank in terms of having the products and services that you need?**
- **How would you rate your bank in terms of its history as a stable financial institution?**

■ **Example of Unfiltered and Filtered Version of the Question:**

- **How would you rate your bank in terms of having the products and services that you need?**

**Respondents who heard *unfiltered questions* were asked, “would you rate it... ?”**

7. Absolutely perfect
6. Close to perfect
5. Higher than average
4. What’s standard for a good bank
3. Somewhat lower than average
2. Much lower than average
1. Awful

**Respondents who heard *filtered questions* were asked, “would you rate it... ?”**

1. Above average
2. Below average
3. What’s standard for a good bank.

**Respondents who rated it *above average* were asked, “would you say that it is ... ?”**

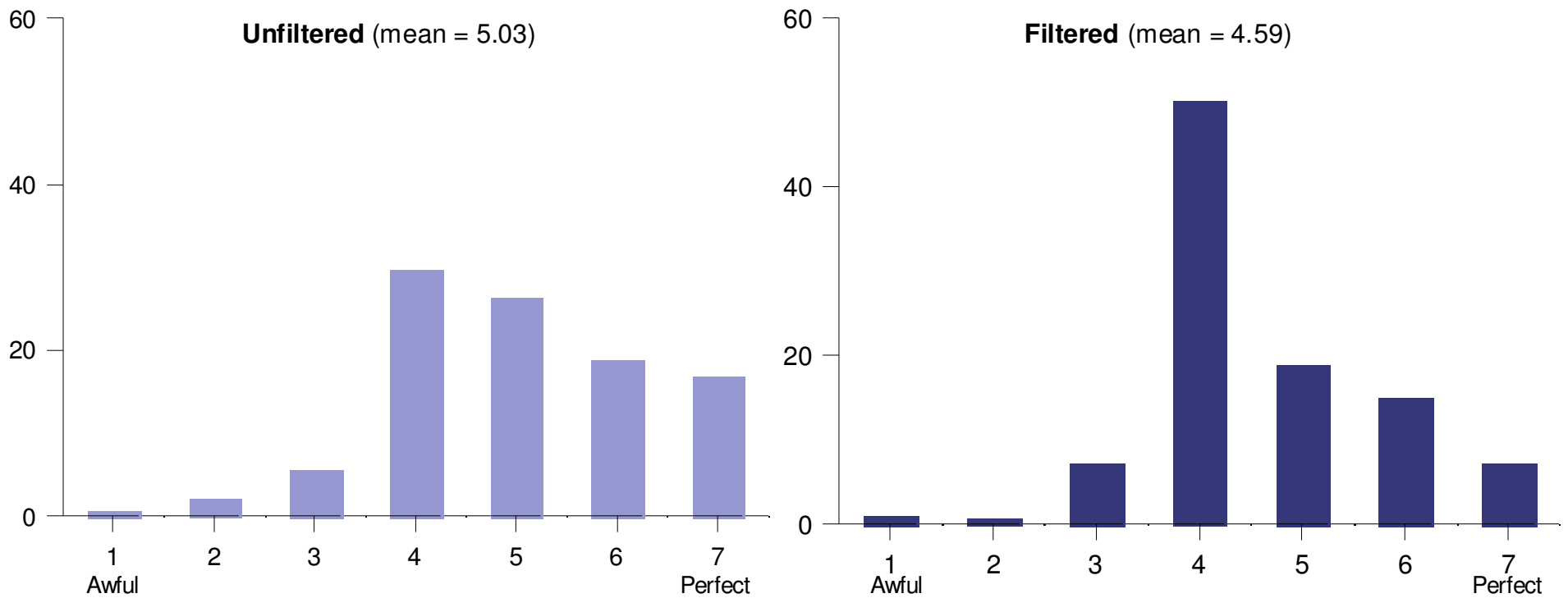
5. Higher than average
6. Close to perfect
7. Absolutely perfect

**Respondents who rated it *below average* were asked, “would you say that it is ... ?”**

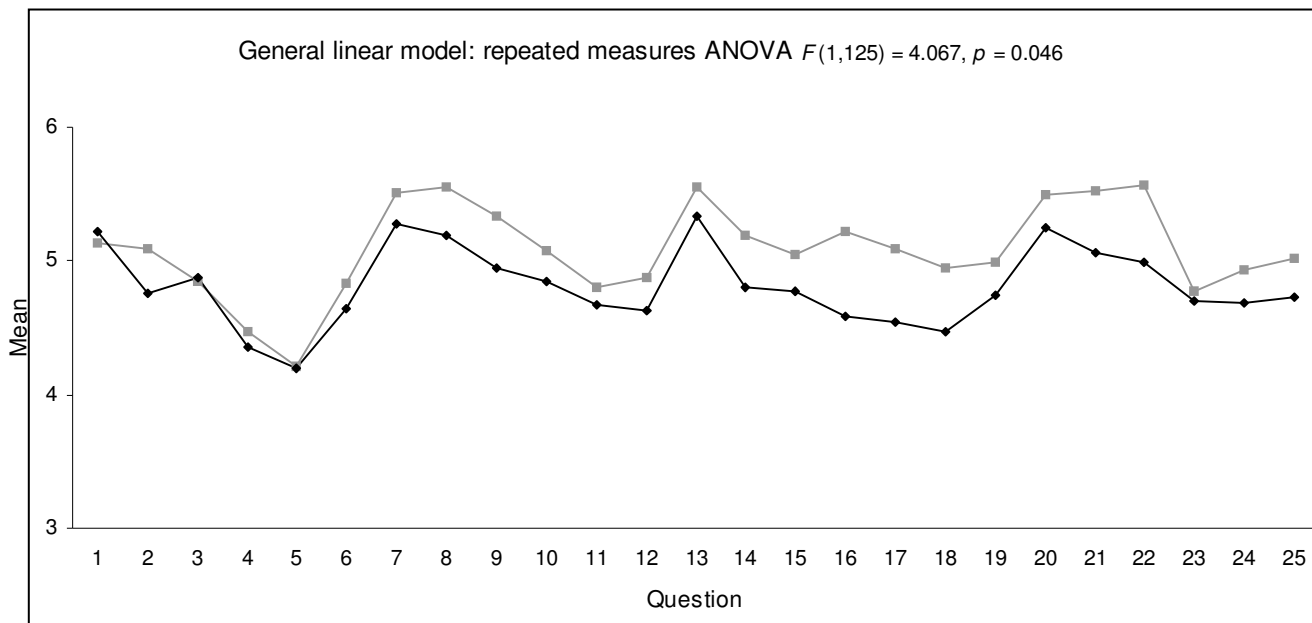
3. Somewhat lower than average
2. Much lower than average
1. Awful

■ **Example of Unfiltered and Filtered Version of the Question:**

- **How would you rate your bank in terms of having the products and services that you need?**



- A repeated measures ANOVA on a general linear model comparing the means of unfiltered versus filtered questions reveals a between-subjects effect with a significance of 0.046.
- The filtered questions result in consistently lower mean ratings.



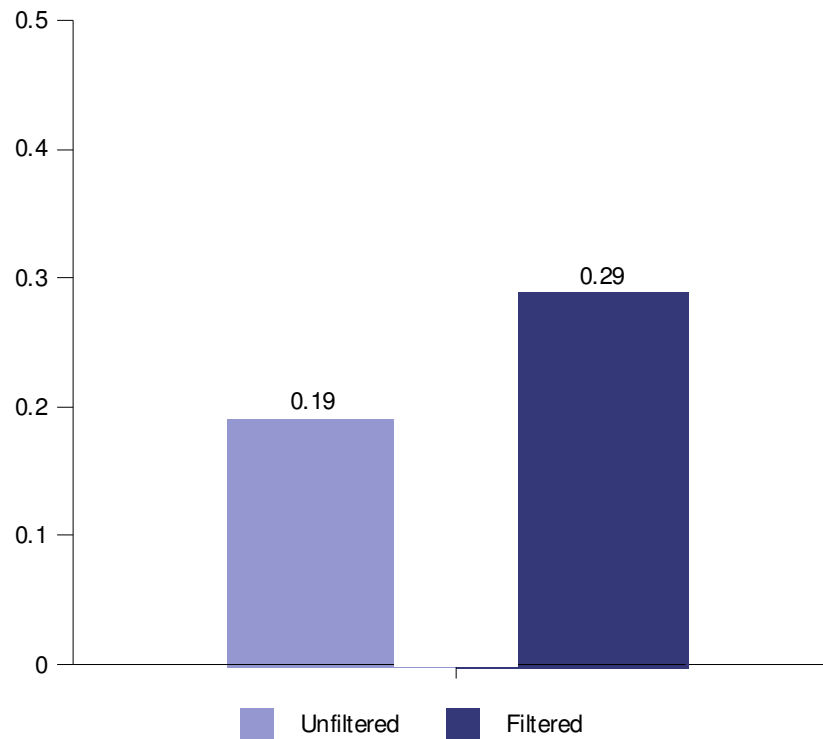
**Note:** The means for the ANOVA vary from the overall means, because the test only includes respondents who provided valid data for all 25 questions.

- The average correlation between the filtered questions and the desired consumer behavior that we are trying to explain (new loan account activity, new deposit account activity, loyalty to the bank, likelihood to recommend and net positive statements) was significantly higher than the average correlation between the unfiltered questions and these desired consumer behaviors.

**General Linear Model  
Test of transformed  
correlations:**

25 independent variables x  
5 dependent variables

$F(1,48) = 18.202, p < 0.001$



■ **Summary of Key Findings:**

- **The 7-point rating scale that centers consumers' experiences around "what's standard for a good bank" anchors service quality ratings closer to the center of the scale.**
- **The use of filtered questions anchors more respondents closer to the center of the scale.**
- **The use of filtered questions results in greater predictive validity.**
- **Improved predictive validity is suggestive of reduced satisficing.**

■ **Future Research:**

- **Test filtered and unfiltered scales for reliability.**
- **Explore techniques to get additional differentiation at the lower end of the scale.**
- **Evaluate differences based on the order in which response options are read.**