

Controlling Response Biases in the Measurement of
Consumer Knowledge

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Abstract (50 words max):

We measured consumer product recognition with the over-claiming technique (OCT), a new signal-detection based measure. Even when participants were told to exaggerate their knowledge, OCT scores were correlated with verified product knowledge. This robustness to impression management indicates the potential value of the OCT in survey research.

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Summary (500 words max):

Product familiarity surveys typically ask only about real items. Yet work on response biases (e.g., Krosnick, 1999) suggests that people differ systematically in their tendency to agree with survey questions.

A possible solution lies in a recent method from personality research -- the signal-detection based over-claiming technique (OCT) (e.g., Paulhus et al., 2003). Here, accuracy is the ability to distinguish real from fictitious items, and bias is the tendency to claim familiarity across all items.

In the current study, we applied the OCT to the assessment of product knowledge in consumer survey data (e.g., Ye and Van Raaij, 2004). We were especially interested in the method's resistance to response sets such as impression management and sabotage.

Method

To obtain measures of true product recognition (accuracy) and product over-claiming (bias), 145 participants provided familiarity ratings of 165 consumer products on a 5-point Likert scale (1 = 'never heard of it' to 5 = 'very familiar'). Items were

grouped into 11 diverse categories (e.g., video games, alcoholic drinks): Each comprised 15 items -- 11 of them real (e.g., Guinness) and 4 foils (e.g., California Cooler).

Participants were randomly assigned to one of three conditions for their familiarity ratings only: Respond honestly ($n = 49$), exaggerate your product recognition ($n = 48$), or sabotage our results ($n = 48$). These accuracy and bias scores were validated with a product knowledge questionnaire that confirmed actual knowledge by asked for details about the products listed.

Results and Discussion

We compared mean accuracy and bias scores across the three conditions. As expected, accuracy scores were highest in the honest condition (.55) and lowest in the sabotage condition (-.05). Participants in the exaggeration condition showed the highest bias scores (mean = .44).

Countering the notion of complete market segmentation, mean intercorrelations of true product recognition ranged from .21 in the respond honestly condition to .41 in the exaggerate condition. This consumer 'g-factor' might be explained by individual differences in ad exposure.

In addition, our results confirm that the validity of OCT product recognition scores is sustained under attempted exaggeration. We obtained strong correlations with actual product knowledge in both the honest condition ($r = .50$) and the exaggerate condition ($r = .50$).

Our findings suggest the over-claiming technique is a valid tool for measuring product recognition. Although it cannot prevent sabotage, the method does help counter impression management.

References

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