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The Scale Effect

How Rating Scales Affect Product Evaluation

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SUMMARY

People frequently consult online ratings before purchasing goods or services. Review websites provide ratings using different scales. Amazon.com relies on a 5-point scale, Trustpilot on a 10-point scale and Consumer Reports on 100-point scale. Some review websites report several ratings about the same product or services on different scales. For example, Metacritic reports the Metascore (100-point scale) and the User Score (10-point scale) for each product. Given that these websites are only a few keystrokes away from each other, **consumers frequently have to make their product judgments based on several ratings but on different scales**. For instance, if you search for a movie or TV show on Google, the search results include a panel with ratings from different review websites.

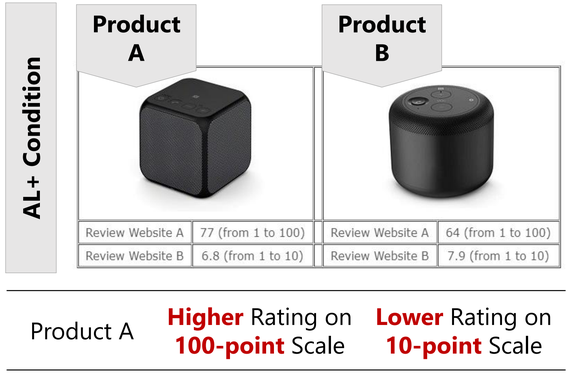
In this paper, we analyse how **rating scales affect product evaluations**. We consider a setting in which a consumer evaluates a product **based on two rating scores**. The rating scores are expressed on a relatively smaller scale (e.g. 5-point) and a relatively larger scale (e.g. 100-point). In 8 main studies (N = 2204) and 3 ancillary studies (N = 622), we consistently found that **ratings expressed on larger scales have a stronger effect** on product attitude, willingness to pay and purchase intentions than ratings expressed on smaller scales. We call this phenomenon the **'scale effect.'**

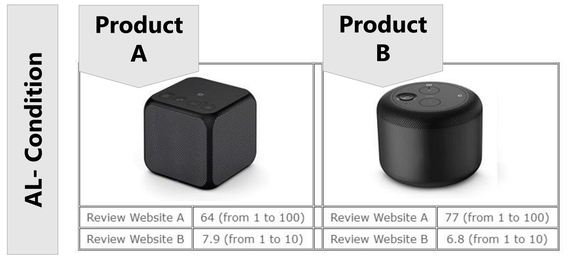
According to the "unit effect", people often fail to take the unit into account. This failure makes evaluations sensitive to the numerical magnitude and, thus, more affected by numerous units. However, we did not find evidence for the presence of numerosity in the rating domain. Instead, our evidence suggests that the scale effect is produced by the differential perceived accuracy of larger and smaller scale ratings: **larger scale ratings are perceived as more accurate than smaller scale ratings.**

OVERVIEW OF STUDIES

Study	N	Goal
1	101	Providing the first evidence for the scale effect.
2	541	Replicating the scale effect across 18 different rating pairs.
3	152	Ruling out the numerosity-based account of the scale effect.
4	802	Ruling out the possibility of the "denominator" neglect.
5	151	Providing evidence that the process is based on giving larger weight to the larger scale.
6	301	Test of the mechanism by manipulating perceived accuracy of the scales and measuring the mediator.
7a	55	Testing the scale effect with ratings collected from review websites
7b	101	Testing the scale effect with ratings collected from review websites and using the same rating format as employed in these websites.

METHOD

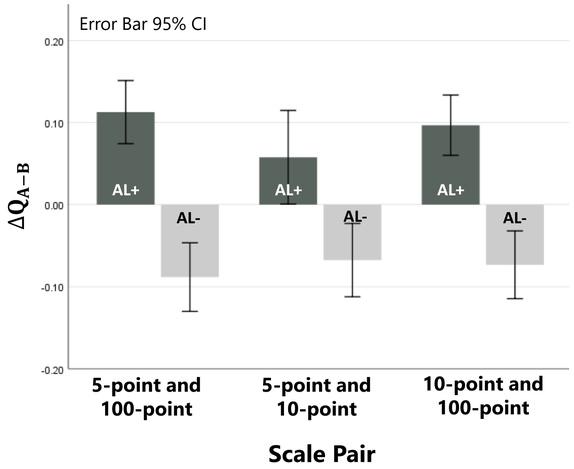




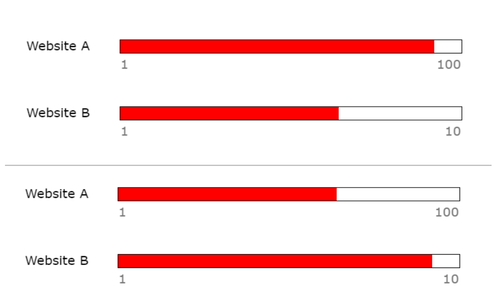
Condition	AL+		AL-
Average Rating	.77 (both products)		.77 (both products)
Null Hypothesis	$[Q(A) - Q(B)]_{AL+}$	=	$[Q(A) - Q(B)]_{AL-}$
Scale Effect Prediction	$[Q(A) - Q(B)]_{AL+}$	>	$[Q(A) - Q(B)]_{AL-}$

Q = Perceived Product Quality (we also measured choice and WTP and the result did not differ)

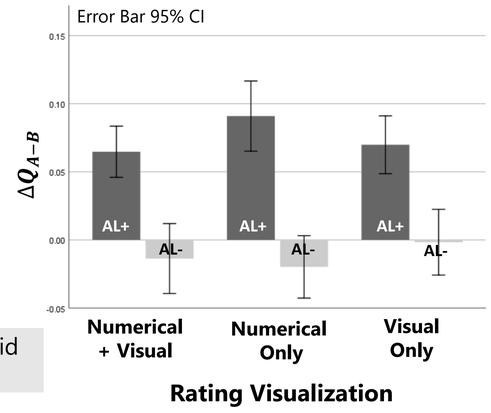
STUDY 2



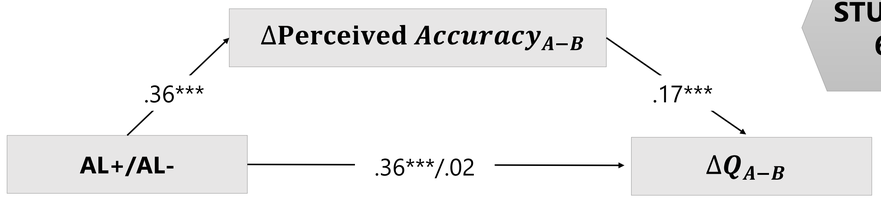
STUDY 3



Using visual representation of the ratings did not have an impact on the scale effect.



STUDY 6



Indirect Effect = .06 [.03, .10]

We also manipulated the relative perceived accuracy of the large-scale ratings, and the mediating role of perceived accuracy was confirmed