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Labovitz School of Business & Economics, University of Minnesota Duluth, 11 E. Superior Street, Suite 210, Duluth, MN 55802

## **This Number Just Feels Right: the Impact of Roundness of Numbers on Reliance on Feelings Versus Cognition**

Monica Wadhwa, INSEAD, Singapore

Kuangjie Zhang, INSEAD, Singapore

We demonstrate that rounded prices facilitate reliance on feelings and thereby lead to more favorable product evaluations when the purchase decision is based on feelings. Conversely, non-rounded number prices facilitate reliance on cognition and thereby lead to more favorable product evaluations when the purchase decision is based on cognition.

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# This Number Just Feels Right: The Impact of Roundness of Numbers on Reliance on Feelings versus Cognition

Monica Wadhwa, INSEAD, France

Kuangjie Zhang, INSEAD, France

## EXTENDED ABSTRACT

Consider two consumers who are on the market to buy a camera for an upcoming family vacation. While one of them comes across a camera priced at \$200.00, the other comes across the same camera at another store, but priced at \$198.76. Given that the camera has all the features required by these two consumers, how would the mere roundness of the price number impact their preference for the camera? Further, could the price number (200 vs. 198.76) impact the consumers' preference for the camera differently if they were buying it for a class project (a purchase decision that is primarily driven by cognition) instead of a family vacation (a purchase decision that is primarily driven by feelings)? In the current research, we examine the impact of the roundness of the numbers on consumers' decision making, given the basis of the purchase decision—that is whether the purchase decision is driven by feelings or cognition.

Emerging research on number cognition suggests that rounded numbers are easier to process and therefore are more fluent as compared to non-rounded numbers (McClure 2011). Further, research on fluency and dual processing theories suggest that targets that are fluently processed lead one to rely more on feeling-based inputs while making evaluative judgments, whereas targets that are not fluently processed lead one to rely more on cognitive inputs while evaluating the target (Alter et al. 2007). Drawing upon these perspectives, we hypothesize that rounded prices are likely to facilitate the use of feelings and thereby lead to more favorable product evaluations when the purchase decision is based on feelings. However, non-rounded prices are likely to facilitate the use of cognition and thereby lead to more favorable product evaluations when the purchase decision is based on cognition.

We tested the aforementioned rounded number hypotheses in a series of five studies. Study-1 examined the main hypothesis related to the rounded-number effect. In this study, participants were asked to indicate their purchase intentions for either a bottle of champagne for a friend's birthday (purchase decision based on feelings) or a calculator (purchase decision based on cognition), which was priced at either a rounded number (\$40.00) or a non-rounded number (\$39.72 or \$40.29). Consistent with our hypotheses, rounded price (\$40.00) led to enhanced purchase intentions for the champagne compared with either of the two non-rounded prices (\$39.72 or \$40.29). In contrast, both the non-rounded prices (\$39.72 and \$40.29) led to enhanced purchase intention for the calculator compared with the rounded price (\$40.00)

In Study-2, keeping the product constant, we manipulated the consumption goal the product was stated to achieve. Specifically, participants were asked to imagine buying a camera for a family vacation (hedonic-consumption goal) or for a photography class (utilitarian-consumption goal), with the price tag randomly displayed at either a rounded number (\$200.00) or a non-rounded number (\$203.96). To make the camera evaluation procedure more realistic, two sample pictures purportedly taken from the camera were presented. Participants first evaluated the sample pictures and then reported their anticipated satisfaction with the camera. A significant price by consumption goal interaction emerged. When buying a camera for a family vacation, rounded price (vs. non-rounded price) led to greater anticipated satisfaction with the camera. In contrast, when buying a camera for a photography class, non-rounded price

(vs. rounded price) led to greater anticipated satisfaction with the camera. The same pattern of results was observed on perceived quality of the sample pictures.

In Study-3, we examine the impact of rounded versus non-rounded prices on product choices. Further, we provide support for our underlying conceptualization by examining the role of one's reliance on feelings versus cognition in mediating participants' product choices. All participants first engaged in a shopping survey and were then informed that they could choose one out of the two equally priced displayed food items as a free gift. The choice set consisted of a food item relatively superior on affective dimension (a chocolate bar) and a food item relatively superior on cognitive dimension (a cereal bar). Both the items were displayed with the same price tag, which was either a rounded-number (\$2.00) or a non-rounded number (\$1.83). Subsequently participants indicated the basis of their choice on three nine-point items that were presented after the following statement—"My decision about which food option to choose was driven by." These items were anchored by "My thoughts (1)/My feelings (9)", "My prudent self (1)/My impulsive self (9)", and "My calculative judgment (1)/My affective judgment (9)" (adapted from Shiv and Fedorikhin 1999). Responses to these three items were averaged to form a single variable—"decision basis". Our findings show that consumers were more likely to choose the chocolate bar when the food items were displayed at a rounded (vs. non-rounded) price. More importantly, this rounded-number effect was mediated by participants' decision basis. Specifically, rounded (vs. non-rounded) price enhanced participants' reliance on feelings (vs. cognition), and thereby led to greater preference for the chocolate bar over the cereal bar.

In Study-4, we provide stronger support for our reliance on feelings versus cognition conceptualization by examining the role of cognitive resources in moderating the rounded number effects. Prior research suggests that when the processing resources are constrained, relative reliance on feeling-based inputs is enhanced (Greifeneder, Bless and Pham 2010). Drawing upon this research, we argue that rounded prices should lead to more favorable product evaluations when processing resources are constrained. On the other hand, when the processing resources are available, relative reliance on cognitive inputs should be enhanced and thus non-rounded prices should lead to more favorable product evaluations. Participants evaluated a digital camera-binocular either priced at a rounded number (\$80.00) or a non-rounded number (\$81.43). However, prior to the evaluation task, we manipulated the availability of cognitive resources by asking participants to memorize either a string of seven English letters (high cognitive load) or one English letter (low cognitive load). Our results revealed a significant interaction between price and cognitive load. Specifically, participants in the high (low) cognitive load condition indicated higher purchase intention with the product when it was priced at a rounded (non-rounded) number.

Finally, Study-5 sought to provide further support for our conceptualization by directly manipulating one's reliance on feelings versus cognition before product evaluation. Participants evaluated a digital camera-binocular either priced at a rounded number (\$80.00) or a non-rounded number (\$81.43). However, prior to the evaluation task, participants were either primed to rely on feelings or cognition (adapted from Hsee and Rottenstreich 2004). Our results revealed

a significant price by priming interaction. Specifically, those in the feeling-prime (cognition-prime) condition indicated higher purchase intention and anticipated satisfaction with the product when it was priced at a rounded number (non-rounded number).

Together, these results suggest that rounded number (non-rounded) prices enhance consumer product evaluations when the purchase decision is based on feelings (cognition), and these effects are moderated by consumers' reliance on feelings versus cognition.