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경영학 석사학위논문

**Understanding the Effects of Polarized  
Review Rating on Product Evaluation:  
The Role of Consumption Goal and Self-Construal**

양극화된 리뷰 평점의 효과에 대한 이해:

구매 목적과 자기 해석의 역할

2020년 2월

서울대학교 대학원

경영학과

전 정 하

## **Abstract**

### **Understanding the Effects of Polarized Review Rating on Product Evaluation: The Role of Consumption Goal and Self-Construal**

Jungha Jeon

College of Business Administration (Marketing)

Seoul National University

Prior research indicates that in a self-expressive consumption context people prefer polarizing product-that is, some people strongly like the product whereas others strongly dislike it. This study demonstrates how individual-level variables can moderate the influence of polarized reviews depending on the consumption context. The result indicates the effects from prior literature emerge only for people with independent self but not for people with interdependent self. Hence, self-construal moderates the effect of the consumption context when people prefer polarizing products.

**Keyword:** e-WOM distribution, self-expressive buying motives, self-construal, polarized review rating, consumption goal

**Student Number:** 2018-27307

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# 1. Introduction

Do you love or hate Marmite, the distinctive salty British condiment? Marmite is one of the most polarizing products because of its strong taste, having “Love it or hate it” as its slogan. ‘Like Marmite’ are now regularly used to describe anything divisive.

In the online commerce context, the level of agreement among consumers’ preference is presented as the distribution of review rating. Strong and extreme individual preferences can form highly dispersed reviews ratings. A brand with a middle average score may, in fact, be highly divisive, with people having polarized preference.

Recent research showed that when consumers are conscious about self-express, they prefer the product with bimodal rating distribution to product with unimodal rating distribution (Rozenkrants, Wheeler, and Shiv 2017). Such results are because people perceived the polarizing product as a means to create a clear self-concept and express individual tastes and personalities.

However, the polarized product is highly controversial and creates a sensation in the market. Depending on culture and personality, people could be more attentive to the reactions of others. Thus, some may prefer that controversial item to express their identity, but others may feel uncomfortable to stand out.

This study started from capturing social phenomena that in Korea,

people are reluctant to consume polarizing products even when self-expression is important, which is a tendency that contradicts previous research from United States (Rozenkrants, Wheeler, and Shiv 2017). In American culture, it is important to become independent from others. They learn the value of standing out and express one's unique attribute (Markus and Kitayama 1991). On the other hand, in the East-in Japan, Korea, and China-harmony with others is emphasized. Their concept of individuality is on the relatedness of individuals to each other. This difference is noticed in the maxim that "it's the squeaky wheel that gets the grease," in the West, whereas "the nail that sticks up shall be hammered down." in the East.

Also within the same culture, people with independent self-construal prefer to be differentiated from others. However, people with interdependent self-construal are constantly aware of others and focus on their needs, desires, and goals to fit in with others. This research examines how these divergent views of the self—the independent and the interdependent—can have an influence on the perception of a product with a polarized review rating. I believe that identifying variables that control the consumers' responses to the distribution of product ratings will help us better understand consumer responses to consumer reviews.

## **2. Theoretical Background and Hypotheses**

### **Dispersion of Review Ratings**

People converge to the popular opinion making decisions similar to the majority, especially when they do not know what to choose (Çelen and Kariv 2004). However, people tend to diverge in identity-relevant domains (Berger and Heath 2007). They actively diverge to effectively communicate the desired identity even abandoning preferences shared with majority or out-group.

If we look at the review rating, the identical average rating product can have either convergent or divergent rating distribution. If individual reviewers' ratings are different from one another, the variance of the review rating becomes higher. Some studies dealt directly with the effect of the dispersion of reviews. A high variance of ratings give a negative impact on the diagnosticity of product reviews, increasing decision-making uncertainty (Holbrook and Hirschman 1982, Chu, Roh, and Park 2015).

There was a research investigating the effect of dispersion of review ratings using product type (whether it is hedonic or utilitarian product) as a moderator. In the hedonic product purchase situation, consumers' evaluations were more positive when they were exposed to highly dispersed ratings (versus lowly dispersed ratings) (Chu, Roh, and Park 2015). However, in a utilitarian product purchase situation, there was no positive effect of highly dispersed ratings. As hedonic products have high preference heterogeneity

(Holbrook and Hirschman 1982), people reduced the perceived uncertainty of how accurately that hedonic products will fit their preference when they see highly dispersed ratings.

### **Consumption Goal**

People want to meet their needs through the purchase of a particular product or service. In functional motivation, it is important how well the functions are performed by the product (Bhat and Reddy 1998). People buy products because of their functions, but also for the expression of one's identity (Berger and Heath 2007). With identity buying motivation, individuals expect to get their personal or social identity through acquiring material goods (Dittmar, Long, and Bond 2007). Their consumption makes them to get closer to the ideal self, and help self-expression. These identity-related motivations are becoming more and more important to understand modern consumer behavior (Dittmar 2004). Identity-seeking perspective can motivate people to be more responsive to the reaction of others.

Products with polarized rating itself are perceived more self-expressive (Rozenkrants, Wheeler, and Shiv 2017). Polarized rating distributions can be perceived to be more indicative of the product's ability to signal one's characteristics. Therefore, people thought the product with bimodal distribution is more desirable in the consumption context when self-expression is important.

## **Self-Construal**

Self-Construal is a concept of the relationship between self and others, and the self as distance from others (Singelis and Sharkey 1995). The concept of self influences how an individual thinks, feels, and acts. There are two construals of the self: independent and interdependent. An independent self-construal is defined as a unique entity that is organized with an emphasis on a person's own internal thoughts and feelings. They value one's individuality that distinguishes themselves from others. In contrast, an interdependent self-construal is an entity formed by being closely associated with those of others and reacting to the social environment and reactions of others. For them, others serve as sources to verify and affirm the self-identity.

This difference in self-construal may influence how people perceive products with polarized ratings. In this research, I examine how individual differences and contextual variables (consumption goal: functional or self-expressive) effect on consumers' inference from polarized rating. I expected strong and differentiated opinions shown as polarized rating will be perceived as more attractive among those with an independent self. However, the same polarized rating will be perceived as riskier among those with an independent self.

## **Hypotheses**

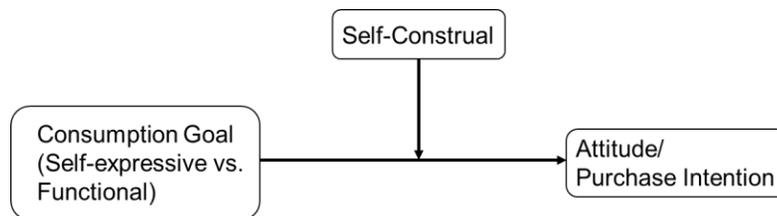
Based on the above theorization, I predict the following:

**H:** The influence of polarized review ratings in the consumption context (consumption goal: self-expressive vs. functional) is moderated by self-construal.

**H-1:** Independent consumers will be more likely to show (a) favorable attitude and (b) higher purchase intention for a product with polarized rating distributions (i.e., bimodal) in a self-expressive consumption context compared to functional consumption context.

**H-2:** The above positive effect of polarized review ratings on product evaluation will diminish for interdependent consumers.

*Figure 1.* Research model



### 3. Method

#### Participants and design

One hundred and forty-one students at Seoul National University took part in an in-lab study, together with several other unrelated tasks and were compensated with \$5 for thirty-minute of their time. They were randomly assigned to test our hypotheses. I asked participants to evaluate the clothes

they were considering for either a self-expressive or functional purpose.

In this research, I set a specific type of variance in review rating – polarization- and this distribution has two peaks (i.e., those with clear peaks at the higher and lower star ratings). The average rating was presented together with the bimodal distribution (see Appendix A and B).

## **Procedure**

I manipulated the consumption context by asking participants to write about products they bought either for expression of their identity or for functional benefits. The manipulation stimuli were revised from previous research (Berger and Heath 2007). In the identity-expressive (functional) condition, they read:

“Sometimes people choose things based on how well things express their identity (they perform a specific function). In the space below, please write 5-7 sentences about something you bought that express who you are to the people around you (for the functional benefits it provides). Also, write about why you decided to purchase that particular type/brand. What considerations did you make at the time that you decided to make the purchase? For instance, some people may add music to their SNS profiles because they feel it expresses the type of person they are (toothpaste because it freshens breath and does a good job of fighting cavities).”

Next, participants were asked to imagine that they were going to buy new clothes for the same purpose they had just listed. They were presented the following scenario:

“When you buy new clothes, you consider your style, fashion sense, and color of clothes to express your identity rather than function or usefulness (comfort, durability, and materials rather than style to fulfill practical purpose). Now you want to buy clothes that express your characteristics (to get functional benefit). While surfing the Internet, you find clothes that look good. Considering a purchase, you want to check the ratings

from the previous buyers. Please take a look at the buyer's ratings listed below and respond to the survey.”

After reading the scenario, participants saw a bimodal rating distribution of the clothes they were considering. Participants then completed a number of dependent measures regarding their attitude and purchase intention toward the product.

### **Measures**

Measures for self-construal were rated on a 7-point Likert-type scale ranging from strongly disagree to strongly agree. I used a revised self-construal scale (Yang and Kim 2010) for Korean situation (see Appendix C). Independent self-construal and interdependent self-construal each measure seven items. However, one question asking about siblings in interdependent self-construal was excluded because there were respondents who were unable to respond to the question because they did not have siblings. Thus, the interdependent self-construal score of the individual participants (average of six items) minus the independent self-construal score (average of seven items) was taken as the self-construal value.

Finally, participants also provided their product attitudes and purchase intention on three seven-point scales ranging from strongly disagree to strongly agree. Every three variables were averaged for the dependent variables. Attitude was measured on a number of dimensions (bad-good,

negative-positive, and unfavorable-favorable).

## 4. Results

### Manipulation checks

The manipulation checks for the consumption context used bipolar items: “This purchase is related to functional purpose” and “This purchase is related to identity-signaling”. Lower scores indicated a functional consumption goal. Examination of the consumption goal manipulation check revealed that participants with a self-expressive goal gave a higher score ( $M_{\text{functional}}=2.56$  vs.  $M_{\text{expressive}}=4.34$ ,  $F(1,139)=29.59$ ,  $p<.001$ ).

### Attitude and Purchase Intension

Based on two hypotheses, I predicted that one’s self-construal will play a role in attitude and purchase intention of polarized products when the consumption goal is framed as identity relevant as opposed to functional. People with low self-construal (independent self) would have a better attitude and purchased intension to clothes with a bimodal rating distribution in self-expressive consumption goals. However, people with interdependent self-construal would not think desirability to clothes with a bimodal rating distribution in self-expressive consumption goals.

Each attitude and purchase intention questions were factor analyzed. One factor emerged in accounting for over 90% of the total variance for both

constructs. I, therefore, averaged the items to form the product attitude index ( $\alpha = .946$ ) and purchase intention index ( $\alpha = .945$ ).

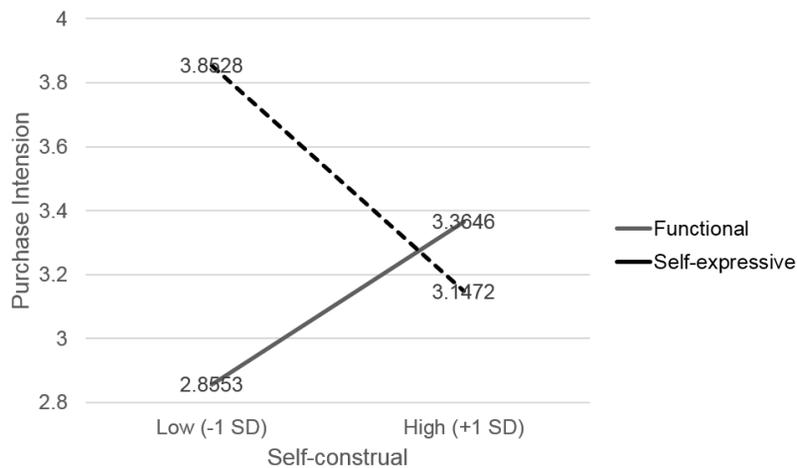
To test the hypothesis, I regressed purchase intention on consumption goal, self-construal and their interaction. I found a significant interaction effect of purchase intention and self-construal ( $b = -.34$ ,  $SE = .1453$ ,  $t(137) = -2.36$ ,  $p = .02$ ). A spotlight analysis at one standard deviation below the mean of self-construal showed a significant difference ( $b = 1.00$ ,  $SE = .36$ ,  $t(137) = 2.74$ ,  $p = .01$ ). Low self-construal (independent self) consumers had significantly greater purchase intention in expressive consumption goal ( $M = 3.85$ ) versus in functional consumption goal ( $M = 3.24$ ) when polarized review rating was presented (see Figure 2a). In high self-construal (interdependent self), there was no significant difference ( $p > .10$ ) on purchase intention between two consumption goals ( $M_{functional} = 3.36$  vs.  $M_{expressive} = 3.15$ ).

The hypothesis for product attitude was also marginally confirmed. In support of our hypothesis, the results revealed the marginally significant interaction between attitude and self-construal ( $b = -.24$ ,  $SE = .14$ ,  $t(137) = -1.75$ ,  $p = .08$ ). A spotlight analysis at one standard deviation below the mean of self-construal (low self-construal) showed a significant difference ( $b = .74$ ,  $SE = .34$ ,  $t(137) = 2.19$ ,  $p = .03$ ). Low self-construal (independent self) consumers had a significantly better attitude in expressive consumption goal ( $M = 3.98$ ) versus in functional consumption goal ( $M = 3.24$ ) when polarized review rating was presented (see Figure 2b). In high self-construal

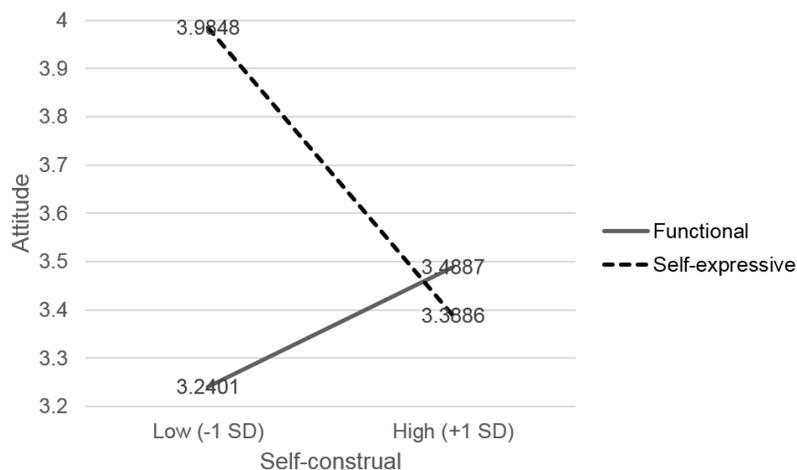
(interdependent self), there was no significant difference ( $p > .10$ ) on attitude between two consumption goals ( $M_{\text{functional}} = 3.49$  vs.  $M_{\text{expressive}} = 3.39$ ).

**Figure 2.**

**(a) Purchase intention as predicted by self-construal**



**(b) Attitude as predicted by self-construal**



(The plots show mean purchase intention and attitude estimated by spotlight analysis conducted at low (-1SD) and high (+1SD) levels of self-construal.)

## 5. General Discussion

### Theoretical and Practical Implications

Focusing on polarized ratings of online reviews, this study shows that the impact of the product rating distributions varies depending on the consumption goal and consumer's self-construal. For independent people, polarizing products serve as a good means to express oneself to others. In the survey, independent participant in self-expressive consumption goal actually wrote:

“This is clothes that some really love and others really hate, which can be used to express myself, at least because it can be assumed that the individuality is strong and not easy.”

“This is not a product that everybody likes, and I think it's not suitable for everyone. I am willing to buy the above clothes to differentiate yourself.”

However, for interdependent people, polarizing product is considered controversial and risky, as a large number of people dislike that product. In the survey, interdependent participants in the self-expressive consumption goal condition wrote:

“I never buy polarizing products. I don't want to buy products with a lot of people I hate.”

“I think there must be good reasons for people to give it a low rating.”

People search for information through product reviews to reduce uncertainty. Until now, research was focused on quality uncertainty and fit uncertainty (whether the product will match their preference) regarding the product consumer try to buy (Kwark, Chen, and Raghunathan 2014). This

paper suggests another type of uncertainty, social appropriateness.

This study also provides practical marketing guidance. In this study, people with interdependent self-construal have consistently negative evaluations toward polarizing products, whereas for people with independent self-construal it does not always lead to negative evaluations. Thus if marketing managers who want to target groups with interdependent individuals, it is important to manage consistent opinion among consumers.

### **Limitation and Future Directions**

This study has several limitations. First, in this study, I investigated a specific type of product rating-polarization. In addition, the study was conducted only in positive situations in which the average rating was quite good (3.5 out of 5). In other words, only the interaction effects of product consumption goal and self-construal were identified, when the distribution of the ratings was polarized with a good average score. Future research can manipulate the overall average of product ratings to negative, moderate, and positive conditions.

Second, the participants in the study were limited to university students. Young people who are heavily influenced by peer groups can be more sensitive to other people's evaluations. Also, they tend to think that expressing their identity is more important compared to other age groups. Thus future study can be done with more diverse social group members to

generalize the effect.

Finally, in the survey, some people made different attribution for the same dispersion of review rating. Some said they think that dispersion comes from the inconsistent quality of the product (poor needlework). On the other hand, others thought that the dispersion is attributed to body type or style. Prior research showed that the negative influence of dispersion in e-WOM on product evaluation is stronger for taste-similar domains than for taste-dissimilar domains (He and Bond 2015). Future research can consider different attributes of the product evaluation, and investigate the underlying mechanism of why interdependent consumer hate polarizing products.

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# Appendices

## APPENDIX A. Identity-Expressive Consumption Goal

사람들은 때때로 특정한 제품이 얼마나 **나의 개성을 잘 표현**하는지를 기준으로 제품을 구입합니다.

아래 빈 칸에, 당신이 주변 사람들에게 **당신이 누구인지 표현**하기 위해 구매한 것에 대해 적어주세요.

왜 그 제품이나 브랜드를 선택했나요?

그 당시 어떠한 것을 고려해서 구매를 결정했나요?

(5-7문장 정도 적어주세요.)

예를 들어, 사람들은 스스로를 어떠한 사람인지 잘 표현하기 위해 SNS프로필의 음악을 선택할 수 있습니다.

아래 적혀진 내용을 상상하면서 읽어주세요.

옷의 경우에도 나의 **개성**을 표현하기 위해 실용성이나 유용성보다는 **스타일, 패션센스, 옷의 색상** 등을 고려해서 구매하곤 합니다.

당신은 **당신의 개성**을 잘 표현할 수 있는 옷을 구매하고 싶습니다.

인터넷 검색을 하던 당신은 괜찮아 보이는 옷을 발견합니다.

구매를 고민하는 당신은 **구매자들이 남긴 평점**을 확인하려고 합니다.

아래에 제시된 구매자 평점을 잘 보시고 질문에 응답하여 주시기 바랍니다.

(15초 후에 다음 화면으로 넘어갑니다.)



## APPENDIX B. Functional Consumption Goal

사람들은 때때로 특정한 제품이 **필요한 기능을 얼마나 잘 수행**하는지를 기준으로 제품을 구입합니다.

아래 빈 칸에, 당신이 제품의 **실용성**을 고려해서 구매한 것에 대해 적어주세요.

왜 그 제품이나 브랜드를 선택했나요?

그 당시 어떠한 것을 고려해서 구매를 결정했나요?

(5-7문장 정도 적어주세요.)

예를 들어, 사람들은 충치예방, 구취억제 효과에서 탁월하기 때문에 치약을 선택할 수 있습니다.

아래 적혀진 내용을 상상하면서 읽어주세요.

옷의 경우에도 **실용적 목적**을 위해 스타일 보다는 **편안함, 내구성, 소재** 등을 고려해서 구매하곤 합니다.

당신은 **실용적 목적**으로 새로운 옷을 구매하고 싶습니다.

인터넷 검색을 하던 당신은 괜찮아 보이는 옷을 발견합니다.

구매를 고민하는 당신은 **구매자들이 남긴 평점**을 확인하려고 합니다.

아래에 제시된 구매자 평점을 잘 보시고 설문에 응답하여 주시기 바랍니다.  
(15초 후에 다음 화면으로 넘어갑니다.)



## APPENDIX C. Measures

### Self-Construal (Yang and Kim 2010)

- (1) 내가 속한 집단에서 조화를 유지하는 것은 나에게 중요하다.
- (2) 생생한 상상력을 가지는 것은 나에게 중요하다.
- (3) 나는 종종 타인과의 원만한 관계가 나 자신의 성취보다 더 중요하고 느낀다.
- (4) 나는 수업/회의시간에 내 의견을 말하는 것을 두려워하지 않는다.
- (5) 나 자신을 돌볼 수 있는 것은 나에게 가장 중요한 관심사이다.
- (6) 나는 내가 속한 집단의 이익을 위해 나의 이익을 희생할 수 있다.
- (7) 나는 나와 관계를 맺고 있는 권위 있는 인물을 존경한다.
- (8) 나는 오해 받을 가능성을 낮기보다는 단도직입적으로 "싫다"고 말할 것이다.
- (9) 새로운 사람들을 만날 때, 나는 직접적이고 솔직한 것을 선호한다.
- (10) 나는 내가 속한 집단이 마음에 들지 않아도, 그들이 나를 필요로 한다면 집단에 머물 것이다.
- (11) 나는 많은 점에서 타인과 다른 독특한 것을 추구한다.
- (12) 나에게 있어 주변 사람들과 구별되는 나만의 정체성은 매우 중요하다.
- (13) 나는 집단에 의해 결정된 사항들을 존중하는 것이 중요하다고 생각한다.

# 국문초록

## 양극화된 리뷰 평점의 효과에 대한 이해:

### 자기해석과 제품 구매 동기의 역할

전정하

경영학과 마케팅 전공

서울대학교 대학원

이전의 연구에 따르면, 자기표현 구매 동기에서 사람들은 소비자들의 선호가 극과 극으로 나뉘는 제품을 선호하는 것으로 나타났다. 본 연구에서는 개인차 변수가 앞선 연구의 양극화된 제품 평점의 효과를 조절할 수 있는지 보고자 하였다. 연구 결과에 따르면, 독립적 자아해석을 가진 사람은 자기표현 구매 목적을 가진 상황에서 평점이 극과 극으로 나뉜 제품을 선호하였다. 반면, 상호의존적 자아해석을 가진 사람은 자기표현 구매 동기에 있어서도 평점의 분산이 큰 제품을 선호하지 않았다. 따라서 본 연구는 제품에 대한 호불호가 강한 제품의 서로 다른 구매 상황에서 자기해석의 효과를 규명하였다.

주요어: 온라인 리뷰의 분산, 자기표현 구매 동기, 자기해석, 양극화 리뷰, 구매 동기

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