

# Country of Origin Bias in Online Reviews and Its Impact on Products Rating

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## Abstract

*Online reviews are a double-edged sword. On the one hand, they are blessings if they help customers make more informed decisions and help companies increase their sales. On the other hand, they might mislead customers and damage products' success in e-commerce platforms if they suffer from systematic bias. Research on online review bias has predominantly focused on three possible sources of biases: social influence bias, negativity bias, and self-selection bias. Extending these previous studies, the current research investigated the country-induced bias in product reviews when there is a pervasive sentiment against a country in society. It particularly argues that the pervasive feeling against a country increases consumers' sensitivity to products' country of origin. It also results in more expressions of negative emotions in the review content. However, if the product quality is acceptable, the pervasive feeling will not negatively affect the overall rating of the products originating from that country.*

**Keywords:** Online Review, Biased Review, Subjective Language, Country of Origin, Sentiment

## 1. Introduction

Online customer reviews have been recognized as a crucial factor influencing customer decision-making processes and product sales (Guo et al., 2020).

It is well-established that a significant proportion of customers, 92%, read online reviews before making purchases (Ludwig et al., 2013; Tang et al., 2014), and 78% of customers trust what they read as much as personal recommendations (Allard et al., 2020). With the increasing reliance on reviews as a source of information, companies are also allocating more budget to manage them. However, there is a concern about systematic bias in the online review process that can tremendously influence the success of products in the online environment (Han and Anderson, 2020; Moe and Schweidel, 2012). In recent studies, several reasons have been discussed as possible sources of bias, including social influence bias, negativity bias, and self-selection bias. Although these studies have provided an insightful theoretical understanding of biases in online review, there is more to know about this problem. For instance, past research has shown products' country of origin is one of the cues that customers might use in their product evaluation process. Both empirical observations and experiment results indicate that a product's country of origin has a considerable impact on the quality perception of the product and on a decision on whether to purchase the product or not (Carlsson Hauff and Nilsson, 2017; Herz and Diamantopoulos, 2017; Verlegh and Steenkamp, 1999). However, little attention has been paid to whether to use their pervasive feeling against or in favor of a country in their product review.

The current paper aims to answer these questions by comparing customers' reviews on Amazon before and after the pandemic, using web-scraped data. The COVID-19 pandemic was selected as the case for this research since the pandemic has unleashed a wave of

panic with so many misleading rumors and conspiracy theories about the origins of the virus in social media. Not only did the virus escalate rapidly, but also a widespread distrust and anti-China sentiment. In mid-2020, 73% of Americans expressed an unfavorable view of China, with a 26-percentage point increase from 2018 (Silver et al., 2020). In many ways, people start to shape a metonymic relationship between COVID-19 and “Chineseness” (Depoux et al., 2020). That is, people associate Chinese restaurants, Chinese goods, Chinese products, and everything coming from China with the COVID-19 virus. Although the pervasive anti-China sentiment may be considered socially undesirable, it points to the possibility of change in customers’ product evaluation process. To address this concern, the current paper investigates three key research questions: 1) Do pervasive feelings against countries (During COVID-19 in our case) increase customers’ sensitivity to products’ country of origin? 2: To what extent do customers express their pervasive feelings (anti-China sentiments) in their review content? 3) How have products’ overall ratings changed following the pandemic?

The results provide several contributions to marketing theory and practice. First, there are concerns about the possibility of systematic biases in customers’ product review process (Moe and Schweidel, 2012). The findings show that one source of bias in online reviews originates from a society where reviewers are affected by widespread pervasive feelings against a country. Second, while most research on online reviews finds that negative reviews will hurt the overall rating of products, we highlight a boundary condition for this effect. We show that if the product quality is acceptable, the pervasive feeling against a product’s country of origin will not affect its overall rating.

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

### **Bias in Online Review**

Product reviews play a crucial role for companies and customers. From company’s perspective, these reviews possess predictive powers that allow them to forecast their products’ sales (Tsang and Prendergast, 2009). From customers’ perspective, reviews are vital information that helps them make better purchase

decisions (Woolley and Sharif, 2021). However, the credibility and usefulness of online reviews depend on their impartiality. Although readers generally trust the content they encounter, the language used by reviewers is often influenced by their motivations or attitudes (Chen and Yuan, 2020). For instance, long before the existence of online reviews, Cohen and Golden (1972) have shown that allowing participants to know others’ opinions about a product largely influences the ratings given by subjects. This bias occurs when the perception of product quality is swayed by exposure to previous reviews (Muchnik et al., 2013; Wang et al., 2010). Recent studies have confirmed the presence of social influence bias in the online environment, suggesting that positive reviews have a more pronounced impact on customers’ tendency to rate products positively, while negative influence becomes neutralized as the product accumulates more reviews (Muchnik et al., 2013).

While the rationale behind the social influence bias is customers’ lack of attention to product attributes and merely relying on others’ opinions, the second form of subjectivity “negativity bias” happens when social concerns such as appearing unique, intelligent, and competent are triggered. Berger and Heath (2007) show that reviews could be a way for customers to signal their identity rather than being strictly factual information. The premise of this argument is that people, in general, enjoy the feeling of uniqueness. Therefore, by communicating their opinion in reviews, people talk about a product as if they have specific characteristics, knowledge, or expertise. That, in turn, helps them shape how they want others to see them (Chung and Darke, 2006). For example, one may actively engage in reviewing wines to tell others how she is a person of sophistication and how she has good taste in wine.

Customers also tend to create a negative bias in their review, even when their personal experience is positive, to be seen as intelligent and competent. In essence, negative evaluations are assumed to be a sign of a high intellectual ability to recognize the problems of the products, while positive evaluations might be perceived as being ignorant (Ivanova et al., 2013; Schlosser, 2005). Another important source of bias in online review is self-selection bias which manifests itself in two forms “acquisition bias” and “under-reporting bias”. Generally, customers with a favorable opinion about a product are more likely to purchase it. That, in turn, creates a positively skewed review for the product which is known as the acquisition bias problem. After trying the product, only extremely satisfied or unsatisfied customers are motivated enough to write the reviews. Therefore, products will

receive extreme reviews. This effect is called under-reporting bias (Askalidis et al., 2017; Gao et al., 2015).

Beyond the reviewed sources of bias in online reviews, any subjective cues that reviewers might use in their product evaluation are likely to be a source of bias. Past research on country-induced bias shows that the country from which a product originated is one of the cues customers use in their product evaluation (Bilkey and Nes, 1982; Gürhan-Canli and Maheswaran, 2000; Klein, 2002). However, little attention has been paid to the manifestation of country-induced biases in the online review. Addressing this gap, current research investigates how pervasive sentiment in society against a specific country can bias products' online reviews and their influence on readers.

### **Country-Induced Biases**

Investigation into the country-induced bias and its possible influence on product preferences has identified two underlying processes. The first literature stream argues that one may use a specific product's nationality as a cue to infer its quality (Han, 1989). This idea is built around the categorization theory that explains how consumers categorize objects into cognitive structures, by using both objective and subjective cues, to simplify their evaluation (Aboulnasr, 2006). In effect, consumers assume that products from a particular country have similar traits; therefore, assigning products to a specific country category (e.g., Chinese products) or a geographic category (e.g., an Asian product) allows them to generalize their perception and simplify their information processing efforts. One of the common assumptions, closely related to this process, is attaching higher quality to products from a developed country compared to products from developing countries. In line with this idea, Kaynak and Cavusgil (1983) showed that Canadian consumers rates the quality of U.S. products higher than their domestic ones. Comparing American products with Mexican products, Canadians are also more biased against products from Mexico.

While the reviewed literature considers products' origin as a cognitive (quality) cue and explains how consumers structure their knowledge and evaluation of products, another stream of research considers it an emotional cue that shapes consumers' attitudes toward the product. This line of research is built on the premise that the awareness of the products' nationality

induces some ideology that generates a biased feeling against them. The origin of this view comes from Shimp and Sharma (1987) who introduced the concept of consumer ethnocentrism. This concept states that consumers prefer products of their nationality over foreign-made alternatives. Following this point of view, consumers may not attribute their biased feelings to the products' features, instead, they refuse to buy them simply because they believe purchasing foreign-made products will damage the countries' economy and it is unpatriotic. This attitude, in turn, creates bias and error in consumers' comparison between domestic and foreign-made products. Another ideology that may affect consumers' attitudes toward the product is the "consumer animosity" feeling. The premise of animosity is that consumer's emotions, in most cases anger, are directed at some nation and prevent them from buying products from that country. This attitude usually forms because of previous or ongoing military, political, or economic conflicts with a specific country (Riefler and Diamantopoulos, 2007).

The work on animosity has extended to another potentially significant factor in country-induced bias against products as consumer racism (Ouellet, 2005). Consumer racism is defined as "the antipathy toward a given ethnic group's products or services as a symbolic way of discriminating against that group" (Ouellet, 2007). In effect, consumer racism manifests itself in consumers' negative attitude or judgment toward products and services only because it is offered by a specific group. For instance, Whittler (1991) argued some white viewers do not react positively to advertisements with black actors compared to advertisements with white actors. As another example, in a study on Hispanics in the US, French/English Canadians, and North Africans in France, Ouellet (2005) found that minority-owned businesses are adversely affected in areas with pervasive consumer racism. In summary, the extent to which consumers may incorporate country-induced bias in their product evaluations depends on their general perceptions of the product's quality from a particular country, the level of desire for interaction with the country, and their feelings toward people from that country.

During the pandemic, an investigation of this phenomenon reveals a significant negative shift in overall perception toward China, Chinese people, and willingness to have a relationship with them. In a recent sentiment analysis on a large Twitter-based database, Chen et al. (2020) showed that overall sentiment toward China grew negative during the pandemic. This negative viewpoint also extended to Americans' willingness to trade with China, as 46% of

Americans believe the U.S. should get tough on China when it comes to economic relationships, compared to 2019, when 35% held this view (Silver et al., 2020). Therefore, we expect experiencing a negative pervasive feeling against one country to increase individuals' sensitivity to products' country of origin. This argument leads us to the following hypothesis:

**H1:** Reviewers show higher sensitivity to products' country of origin after experiencing a negative pervasive feeling against specific country.

## Online Review Process

A product review consists of two vital components: quantitative (star rating) and qualitative (content) assessment. In general, for reviewing a product, customers tend to start with a cognitive process of evaluating the features of the product against specific comparison standards. Comparison standards include features related to the overall quality of the product and it fits their needs. As a result of this process, customers categorize their experiences as positive, neutral, or negative. Customers purchase products with anticipation of satisfaction. Therefore, if the perceived performance is positive, the evaluation process ends at this stage, and the product will receive a high star rating. However, if a negative or unexpected outcome happens, following the norm theory (Kahneman and Miller, 1986), customers engage in counterfactual thinking that consists of two cognitive activities: attribution and mental stimulation. In effect, after a negative experience, customers first try to find causality between specific features of the product and the unpleasant outcome. Then, they envision how a better result would be achieved if they could modify their decision-making process (Kim and Wansink, 2012; Sridhar and Srinivasan, 2012; Weiner, 2000). At this stage, customers might attribute product failure to objective cues related to product's features, or subjective cues such as product's country of origin. To better manage the attribution process and avoid possible bias in this stage, some websites decompose the overall ratings into individual attributes of the products. That, in turn, encourages the reviewers clarify objective reasons for their ratings.

Star rating, however, is not the only outcome of evaluating product performance. Positive or negative product experiences evoke different emotions that usually manifest themselves in review content. The reason for this manifestation is twofold. First, following the balance theory (Fritz, 1958), people

strive to restore equilibrium if their emotional state is unbalanced. Therefore, after a positive or negative product experience, customers write reviews to regulate their emotions since sharing the perceived emotions is relieving and provides some comfort (Berger, 2014). For example, after a bad experience, some consumers actively write negative reviews to punish the company that caused their negative emotions (Grégoire and Fisher, 2008). Second, customers write review content since talking with others about the experience increases a sense of receiving social support (Berger and Buechel, 2012). Considering other people buying or consuming similar products reinforces the idea of belonging to a group and gives people a common ground to feel a social tie (Clark and Kashima, 2007). This idea is in line with the "common bond theory" in the online context that states consumers may socially or emotionally attach to members of a group. Identification with the group, in turn, increases the perceived similarity to other group members and perceived common values. Therefore, one may engage in online review behavior not because reviewing the product is the most attractive topic to talk about, but because they believe this is the topic that people in that group can relate to. Using online reviews as a tool to reinforce belongingness feeling is especially prevalent when people experience any form of loneliness, social exclusion, and boredom (Berger, 2014).

## Country-Induced Bias in Online Review

Reviewing a product while experiencing a pervasive negative feeling against a specific country is likely to bias this process in the following ways. According to Chen et al. (2014), customers with a negative country-related feeling become reluctant to purchase products that are made in their unfavorable country, or if they decide to buy the product, their feelings make them scrutinize details and pay attention to all concrete product attributes. In other words, their comparison standards for a foreign-made product with an unfavorable country of origin would be strict and detailed. However, if the product passes all the criteria and perceived performance is still positive, they are likely to positively rate the product. Therefore, it can be hypothesized that:

**H2:** Experiencing a pervasive negative feeling toward a specific country will not negatively influence the overall rating of products made in that country if the product quality is acceptable.

In case the experience of product quality is negative, experiencing pervasive feelings against a country in society may affect online review language through two mechanisms. Following the balance theory (Fritz, 1958), people strive to restore equilibrium if their emotional state is unbalanced. Therefore, after a positive or negative product experience, customers write reviews to regulate their emotions since sharing the perceived emotions is relieving and provides some comfort (Berger, 2014). Second, according to norm theory (Kahneman and Miller, 1986), customers engage in counterfactual thinking to describe their product experience. Counterfactual thinking consists of two cognitive activities: attribution and mental stimulation (citation). In effect, consumers try to find causality between products' features and how they feel about the products (Kim and Wansink, 2012; Sridhar and Srinivasan, 2012). Products' features can be any objective cues related to product characteristics, or subjective cues that consumers use to evaluate the product. This rationale leads us to the following hypothesis:

**H3:** Experiencing a pervasive negative feeling toward specific country will increase the possibility of attributing the negative experience to products country of origin.

### 3. Method

#### Overview of the Methods

To test our hypothesis, we assembled a dataset using Amazon product reviews. We chose the COVID-19 pandemic and pervasive feelings against China as our case. First, because China has consistently been the U.S.'s major business partner over the past decade, American consumers have widely access to a wide range of products manufactured in China in retail stores and online platforms. Second, there is ample evidence indicating that the COVID-19 pandemic caused a significant negative shift in overall perception toward China, Chinese people, and willingness to have a relationship with them (Chen et al., 2020).

In particular, we collected data on two groups of products: products that were directly impacted by the COVID-19 (hand sanitizer/alcoholic wipes), this

group of products has gained huge popularity due to the pandemic; and products that were not directly impacted by the COVID-19 (mattress), we assume that this group of products have experienced almost the same amount of popularity pre vs post the COVID-19 pandemic. We selected these products based on available reports on the popularity of the products during pandemic (please visit Tarlton (2020) for more information).

In each category we focused on the products which were Chinese-made or American-made. In total we ended up with 196 products and 43902 customer reviews. Within these products 123 of them were COVID-Related products (45 Chinese and 58 American products), and 73 were COVID-Unrelated products (37 Chinese and 36 American products). We collected the review text, review date, review rating, and the number of people who have found it helpful from Amazon. Then we created some variables of interest using the data which was collected.

**Chinese product:** A dummy variable which equals to 1 if the product is made in China or from a Chinese brand and 0 otherwise.

**Post-pandemic:** We chose 01/02/2021 as the cut-off date to decide whether the review was written after COVID-19 pandemic. We created a dummy which equals to 1 if the reviews have been written after pandemic and 0 otherwise.

**Anti-China sentiment:** Before the final processing of the data for analysis, we defined this variable as a dummy variable which equals to 1, if the review has an anti-China tone, and 0 otherwise. To make this decision, we separated the reviews which contained the words "China" or "Chinese" in them. These reviews were checked and if they had a negative tone about China, they were categorized as reviews with Anti-China sentiment. For the final analysis, we calculated the average of this variable for each product, on a daily basis, using review helpfulness as weights.

**Origin:** Before the final processing of the data for analysis, we defined this variable as a dummy variable which equals to 1, if the review has talked about the country the product was made in and 0 otherwise. To make this decision, we separated the products containing the words "China", "Chinese", "American", "made in China", "made in USA", "made in US", "made in the US". These reviews were checked to make sure they talk about the country of origin of the products. For the final analysis, we took the average of this variable for each product, daily, using review helpfulness as weights.

*Rating:* The rating of each review on Amazon website. For final analysis we aggregated this data on a product-daily basis, using review helpfulness as weights.

## Sentiment Analysis

Consistent with prior research (e.g., Fang and Zhan (2015); Tirunillai and Tellis (2012)), we conducted sentiment analysis on the reviews. Python textblob library was used in this process. This library uses a predefined dictionary containing positive and negative words, as well as the intensity, and subjectivity of each word. This library takes a text as an input and based on the combination of words in it, and using averaging method, it produces two outputs called polarity, and subjectivity. We used this library to capture these two variables.

*Polarity (valence):* Polarity or valence, as defined by prior research (e.g., Mohammad (2021); Tirunillai and Tellis (2012)) is whether the tone of the review is overall positive or negative. However, the caveat of using it as a categorical variable is that we cannot measure how positive or how negative a review has been. In this research we use the polarity variable which is one of the outcomes of Python textblob library. Polarity is float which lies in the range of [-1,1] where 1 means positive statement and -1 means a negative statement. For final analysis we aggregated this data on a product-daily basis, using review helpfulness as weights.

*Subjectivity:* Subjective sentences are defined by prior literature as sentences which include personal opinions or emotional attitudes, while objective sentences just state the facts (Mohammad 2021). For instance, the sentence “I really enjoyed the movie” can be considered as a subjective sentence, while the sentence “the movie was well-directed” can be categorized as objective. To capture this variable, similar to polarity, we use the output of Python textblob library. It is a float which lies in the range of [0,1] where 1 means completely subjective and 0 means not subjective at all. For final analysis we aggregated this data on a product-daily basis, using review helpfulness as weights.

*Image:* Before the final processing of the data for analysis, we defined this variable as a dummy variable which equals to 1, if the review has images and 0 otherwise. For final analysis we aggregated this data on a product-daily basis, using review helpfulness as weights.

## Results

To test our hypothesis, we used 3 different dependent variables in our models: Mention of the country of the origin of the products in the text of the review (Country of origin sensitivity), review ratings, and the degree to which the reviewer mentions negative things about China (Anti-country sentiment). We estimated the models using a Difference-in-Difference (DiD) approach at review-level. Results are presented in the tables above.

Based on the results, the mention of the country of Origin has increased in the products that were directly impacted by COVID-19 pandemic ( $b=.011$ ,  $p\text{-value}<.01$ ). This finding suggests that people will pay more attention to the country of origin of the products, if the product is directly relevant to the issue, in this case COVID-19 pandemic. This finding partially supports H1.

Also, our results indicate that, after the COVID-19 pandemic, the ratings of Chinese products have not been negatively affected in neither of the product groups we have studied ( $b=.067$ ,  $p<.01$ ,  $b=.079$ ,  $p<.01$ ). This result suggests that people, in general are not more negative about Chinese products supporting H2. If the quality of the product is acceptable, they will not be negatively biased against the products made in China.

Finally, our results suggest that the number of reviews badmouthing China has increased but only in products that were directly impacted by COVID-19 ( $b=.013$ ,  $p\text{-value}<.01$ ). Therefore, we can conclude that, the increase in anti-China sentiment, happens only in Chinese products that were directly relevant to COVID-19 pandemic. This finding partially supports H3.

	DV=Country of Origin	DV=Rating	DV=Anti-China Sentiment
Chinese product (dummy)	.004**	-.257***	.004**
Post Covid	.011*** (H1)	-.555***	-.001
Chinese Product*Post Covid	.002	.067*** (H2)	.013*** (H3)
Review Subjectivity	-.002	-.091***	-.002
Review Valence	-.006**	.329***	-.011***
Review Length	.000***	.000***	.000***
Review has image	.077***	-.277***	.091***
Price sensitivity	.002	-.027**	-.001
Intercept	-.002	4.572***	.002
R-squared	.02	.328	.03
N	14495	14495	14495

Figure1: Covid Related (Hand Sanitizer/Alcoholic Wipes)

	DV=Country of Origin	DV=Rating	DV=Anti-China Sentiment
Chinese product (dummy)	-.013***	-.042***	-.000
Post Covid	-.001	-.130***	-.000
Chinese Product*Post Covid	.001	.079*** (H2)	.001
Review Subjectivity	-.002	.014*	.001
Review Valence	.006**	.071***	-.003***
Review Length	.000***	.000***	.000***
Review has image	.005	-.062***	.005**
Price sensitivity	.002	.017***	.001*
Intercept	.007***	4.358***	-.000
R-squared	.02	.07	.004
N	29407	29407	29407

Figure2: Covid Irrelevant (Mattress)

## 4. Discussion

While the impacts of online product reviews on product sales, brands, and platform performance have been well documented in the marketing literature, little is known about how subjective feeling about products' country of origin manifests themselves in online reviews. The importance of such subjective expression of feelings has risen dramatically after the COVID-19 pandemic when consumers faced a massive shock from the pandemic and were bombarded with misinformation about the origin of the virus. Further, the reactions of prospective readers to reviews with a country-induced subjective language have been largely ignored by previous studies. Filling these gaps in the literature was the main aim of the present study.

The first goal of our study was to examine how online reviews reveal reviewers' subjective feelings toward products' country of origin. We used the COVID-19 pandemic as an event that created pervasive feelings against a country (China). The results corroborate the first hypothesis. We found that reviewers express their feelings about the product's country of origin more after COVID-19 in comparison to the same time period before the pandemic. In addition, the results indicate a significant increase in the number of reviews that contained Anti-China sentiments after the pandemic. Thus, we conclude that in the presence of pervasive feelings against a country in society, consumers also express their feelings about where products are manufactured in review content. These findings are in line with previous studies that note online reviews may contain subjective language from reviewers with minimum associations with the quality of products (e.g., Chung and Darke, 2006; Yin et al., 2017). We extend this stream of research by showing how shocks to society can trigger consumers' biases when reviewing products.

The second goal of study was to examine how the overall rating of products is influenced by the pervasive sentiment against the products' country of origin. Previous research showed including subject languages such as personal emotions, exaggerations, and self-enhancing cues in online reviews can affect audience's judgement about the product (Ivanova et al., 2013; Rocklage et al., 2018). The results validate the study's hypothesis that if the quality of products is high, the negative feeling will not adversely impact the products overall rating.

The results provide several contributions to marketing theory and practice. First, there are concerns about the possibility of systematic biases in customers' product review process (Moe and Schweidel, 2012). The findings show that one source of bias in online reviews originates from society where reviewers are affected by widespread pervasive feelings against a country. Second, while most research on online reviews finds that negative reviews will hurt overall rating of products, we highlight a boundary condition for this effect. We show that if the product quality is acceptable, the pervasive feeling against a product's country of origin will not affect its overall rating.

## 5. Limitations and Future Research Directions

The current study adds to the literature in several ways, but it also carries some limitations that can point the way to future research. First, our study exclusively focused on a single source of data collection. While Amazon is known for being a pioneer in the online retailing industry, adding online reviews from other platforms allows future research to generalize their findings with greater assurance. Importantly, by using data collected from multiple online platforms future studies can compare the spreading of country-induced subjective cues among the platforms. Second, the current study is silent about how other reviewers' reactions to the reviews with country-induced cues influence prospective readers and their attitudes toward brands. Previous studies noted that responses to online reviews play crucial roles in shaping readers' opinions (e.g., Proserpio & Zervas, 2017; Wang & Chaudhry, 2018). Adding to this stream of research, a noteworthy way to extend the literature is to scrutinize the role of online moderators— including brand managers and reviewers— when mitigating negative or enhancing positive impacts of subjective cues on customers' attitudes toward brands.

## 6. References

- Aboulnasr, K. (2006), "Country Of Origin Effects: The Role Of Information Diagnostics, Information Typicality And Involvement," *Marketing Management Journal*, 16(1).
- Askalidis, G., Kim, S. J., & Malthouse, E. C. (2017), "Understanding and overcoming biases in online review systems," *Decision Support Systems*, 97, 23-30.
- Berger, J. (2014), "Word of mouth and interpersonal communication: A review and directions for future research," *Journal of consumer psychology*, 24(4), 586-607.
- Berger, J., & Heath, C. (2007), "Where consumers diverge from others: Identity signaling and product domains," *Journal of Consumer Research*, 34(2), 121-134.
- Berger, J. A., & Buechel, E. (2012), "Facebook therapy? why do people share self-relevant content online?," *Why do people share self-relevant content online*.
- Bilkey, W. J., & Nes, E. (1982), "Country-of-origin effects on product evaluations," *Journal of international business studies*, 13(1), 89-100.
- Carlsson Hauff, J., & Nilsson, J. (2017), "The impact of country-of-origin cues on consumer investment behavior: The moderating influence of financial brand strength and investment management style," *European Journal of Marketing*, 51(2), 349-366.
- Chen, C. Y., Mathur, P., & Maheswaran, D. (2014), "The effects of country-related affect on product evaluations," *Journal of Consumer Research*, 41(4), 1033-1046.
- Chen, H., Zhu, Z., Qi, F., Ye, Y., Liu, Z., Sun, M., & Jin, J. (2020), "Country Image in COVID-19 Pandemic: A Case Study of China," *IEEE Transactions on Big Data*.
- Chen, Z., & Yuan, M. (2020), "Psychology of word of mouth marketing," *Current opinion in psychology*, 31, 7-10.
- Chung, C. M., & Darke, P. R. (2006), "The consumer as advocate: Self-relevance, culture, and word-of-mouth," *Marketing Letters*, 17(4), 269-279.
- Clark, A. E., & Kashima, Y. (2007), "Stereotypes help people connect with others in the community: A situated functional analysis of the stereotype consistency bias in communication," *Journal of personality and social psychology*, 93(6), 1028.



- Cohen, J. B., & Golden, E. (1972), "Informational social influence and product evaluation," *Journal of Applied Psychology*, 56(1), 54.
- Depoux, A., Martin, S., Karafillakis, E., Preet, R., Wilder-Smith, A., & Larson, H. (2020). The pandemic of social media panic travels faster than the COVID-19 outbreak. In: Oxford University Press.
- Fang, X., & Zhan, J. (2015), "Sentiment analysis using product review data," *Journal of Big Data*, 2(1), 1-14.
- Fritz, H. (1958). The psychology of interpersonal relations. In: New York: John Wiley and Sons.
- Gao, G., Greenwood, B. N., Agarwal, R., & McCullough, J. S. (2015), "Vocal Minority and Silent Majority," *MIS quarterly*, 39(3), 565-590.
- Grégoire, Y., & Fisher, R. J. (2008), "Customer betrayal and retaliation: when your best customers become your worst enemies," *Journal of the Academy of Marketing Science*, 36(2), 247-261.
- Gürhan-Canli, Z., & Maheswaran, D. (2000), "Cultural variations in country of origin effects," *Journal of Marketing Research*, 37(3), 309-317.
- Han, C. M. (1989), "Country image: halo or summary construct?," *Journal of Marketing Research*, 26(2), 222-229.
- Han, S., & Anderson, C. K. (2020), "Customer motivation and response bias in online reviews," *Cornell Hospitality Quarterly*, 61(2), 142-153.
- Herz, M., & Diamantopoulos, A. (2017), "I use it but will tell you that I don't: Consumers' country-of-origin cue usage denial," *Journal of International Marketing*, 25(2), 52-71.
- Ivanova, O., Scholz, M., & Dorner, V. (2013), "Does amazon scare off customers? the effect of negative spotlight reviews on purchase intention."
- Kahneman, D., & Miller, D. T. (1986), "Norm theory: Comparing reality to its alternatives," *Psychological review*, 93(2), 136.
- Kaynak, E., & Cavusgil, S. T. (1983), "Consumer attitudes towards products of foreign origin: do they vary across product classes?," *International journal of advertising*, 2(2), 147-157.
- Kim, J., & Wansink, B. (2012), "How retailers' recommendation and return policies alter product evaluations," *Journal of retailing*, 88(4), 528-541.
- Klein, J. G. (2002), "Us versus them, or us versus everyone? Delineating consumer aversion to foreign goods," *Journal of international business studies*, 33(2), 345-363.
- Moe, W. W., & Schweidel, D. A. (2012), "Online product opinions: Incidence, evaluation, and evolution," *Marketing Science*, 31(3), 372-386.
- Mohammad, S. M. (2021). Sentiment analysis: Automatically detecting valence, emotions, and other affectual states from text. In *Emotion Measurement* (pp. 323-379): Elsevier.
- Muchnik, L., Aral, S., & Taylor, S. J. (2013), "Social influence bias: A randomized experiment," *science*, 341(6146), 647-651.
- Ouellet, J.-F. (2005), "Consumer racism and its effects on attitudes," *ACR North American Advances*.

- Ouellet, J.-F. (2007), "Consumer racism and its effects on domestic cross-ethnic product purchase: An empirical test in the United States, Canada, and France," *Journal of Marketing*, 71(1), 113-128.
- Riefler, P., & Diamantopoulos, A. (2007), "Consumer animosity: a literature review and a reconsideration of its measurement," *International Marketing Review*.
- Rocklage, M. D., Rucker, D. D., & Nordgren, L. F. (2018), "Persuasion, emotion, and language: The intent to persuade transforms language via emotionality," *Psychological science*, 29(5), 749-760.
- Schlosser, A. E. (2005), "Posting versus lurking: Communicating in a multiple audience context," *Journal of Consumer Research*, 32(2), 260-265.
- Shimp, T. A., & Sharma, S. (1987), "Consumer ethnocentrism: Construction and validation of the CETSCALE," *Journal of Marketing Research*, 24(3), 280-289.
- Silver, L., Delvin, K., & Huang, C. (2020). "Americans Fault China for Its Role in the Spread of COVID-19." *Pew Research Center*. Retrieved from <https://www.pewresearch.org/global/2020/07/30/americans-fault-china-for-its-role-in-the-spread-of-covid-19/>
- Sridhar, S., & Srinivasan, R. (2012), "Social influence effects in online product ratings," *Journal of Marketing*, 76(5), 70-88.
- Tarlton, A. (2020). "24 things that have been selling out online during the coronavirus pandemic," Retrieved from <https://www.usatoday.com/story/tech/reviewedcom/2020/04/20/24-products-selling-out-online-due-coronavirus-pandemic-toilet-paper-cleaning-wipes-yeast-and-more/5161629002/>
- Tirunillai, S., & Tellis, G. J. (2012), "Does chatter really matter? Dynamics of user-generated content and stock performance," *Marketing Science*, 31(2), 198-215.
- Tsang, A. S., & Prendergast, G. (2009), "Is a "star" worth a thousand words? The interplay between product-review texts and rating valences," *European Journal of Marketing*.
- Verlegh, P. W., & Steenkamp, J.-B. E. (1999), "A review and meta-analysis of country-of-origin research," *Journal of economic psychology*, 20(5), 521-546.
- Wang, C. A., Zhang, X. M., & Hann, I.-H. (2010), "Social bias in online product ratings: A quasi-experimental analysis," *WISE 2010, St. Louis, MO*, 1-35.
- Weiner, B. (2000), "Attributional thoughts about consumer behavior," *Journal of Consumer Research*, 27(3), 382-387.
- Whittler, T. E. (1991), "The effects of actors' race in commercial advertising: Review and extension," *Journal of Advertising*, 20(1), 54-60.
- Woolley, K., & Sharif, M. A. (2021), "Incentives Increase Relative Positivity of Review Content and Enjoyment of Review Writing," *Journal of Marketing Research*, 58(3), 539-558.