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Research Paper

Temporal Distance and Message Concreteness in Facebook Ads: The Moderating Effects of Social Distance.

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ABSTRACT

The study examined the effects of social distance, temporal distance, and message concreteness on Facebook users' response to News Feed advertising. A 2 (social distance: low vs. high) × 2 (temporal distance: near future vs. distant future) × 2 (message: abstract vs. concrete) between-group design was utilized to explore the main and interaction effects of three factors on Facebook users' attitude-toward-the-ad, brand interest, and purchase intention. Results suggested that social distance via Facebook moderated the congruency between temporal distance and message concreteness. When the ads were affiliated with close friends, effects predicted by the Construal Level Theory (CLT) were found. The findings indicate the importance of social distance when examining temporal distance and message concreteness in a social media setting. Social media marketers should consider the strength of social relationships based on time of the event and advertising message formats. Future research could examine other products and services and utilize different research methods, such as eye-tracking or field studies. The study tested CLT in a social media setting, particularly the role of relationship strength among Facebook users. It adds theoretical value to existing CLT research and provides valuable insights for social media marketers.

Keywords: Facebook advertising; social distance; temporal distance; message concreteness; Construal Level Theory

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1. INTRODUCTION

Social media have created new opportunities for advertisers to promote products and services through consumers' social networks. One of the most popular social media advertising formats is native advertising that is usually embedded in users' social feeds (e.g., Facebook, Instagram, X). The value of global native advertising market was $59.2 billion in 2023 and is predicted that its compound annual growth rate (CAGR) will reach 6.7% with the value of $545.09 billion by 2030 (FUTURE DATA STATS, 2024). Compared to a roughly 0.05% clickthrough rate from traditional display ads, the clickthrough rate of native ads is around 0.2%, which suggests that an Internet user is four times more likely to click on a native ad than click on a traditional ad (Sramek, 2023). Native Advertising Institute (2020) also claimed that native ads generated an 18% increase in purchase intent and 9% increase in brand affinity, compared to traditional banner ads.

The popularity of in-feed advertising has sparked great interest among scholars to explore effective advertising strategies on social media. The current research focused on Facebook News Feed advertising. One of the strengths of Meta ads is to connect potential and existing customers via Facebook Feeds, Instagram Reels, and Messenger inbox (Meta Ads, 2024). The Meta system is able to find the most relevant audiences for brands (Meta Ads, 2024). Although Meta and other companies have developed multiple social media platforms, as of April 2024, Facebook was still the most used social network with 3, 065 million active users worldwide (Statista, 2024). In 2022, about 60% of global social media ad revenue (over $113 billion) was from Facebook. As a result, 89% of marketing professionals have used or have been using Facebook for their marketing campaigns (Dencheva, 2024). Scholars have examined various aspects of Facebook advertising, from content strategy (Lee et al., 2018; Schivinski & Dabrowski, 2015), audience engagement (de Groot, 2022; Kim, et al., 2016), the impact of peer influence (Ding et al., 2017; Jung et al., 2016), to social media fundraising (Bhati & McDonnell, 2020; Xue & Zhou, 2022). This study contributes

to Facebook advertising research by exploring message concreteness, temporal distance, and social distance in Facebook News Feed ads.

Because of the limited space in Facebook News Feed (especially for smaller screens) and social media users' shrinking attention span (McSpadden, 2015), advertisers often wonder how much information should be included in an in-feed ad. According to the Construal Level Theory (CLT), in general, individuals tend to use more abstract information (high-level construal thoughts) to understand or make initial judgement of an object with long psychological distance. For a short psychological distance, in comparison, individuals usually require more concrete information or low-level construal thoughts (Liberman & Trope, 1998; Trope, Liberman, & Wakslak, 2007). This observation is used as a theoretical framework in the current research to examine message concreteness in Facebook News Feed ads. There are four types of psychological distance, including temporal distance, spatial distance, social distance, and hypothetical distance. The study focused on temporal distance and social distance. Temporal distance has been frequently examined in relation to message concreteness (e.g., Choi, Seo, &Yoon, 2017; Vasquez, 2015; Yang & Hu, 2024). Previous findings suggested that they could significantly influence the level of construal and purchase decisions, but very limited research has been conducted in online settings. Will the same results be found in the current study on Facebook News Feed ads? In addition, social distance was studied because in-feed ads typically pull in social data "such as friends who like the brand, followers, likes, number of views, and comments" (Interactive Advertising Bureau, 2015). This information may be used by social media users in their evaluation of the advertising message. Would it help increase the effectiveness of Facebook advertising? To answer these questions, an online experiment was conducted to measure the effects of message concreteness, temporal distance, and social distance on attitude-toward-the-ad, brand interest, and purchase intention.

2. LITERATURE REVIEW

2.1 Construal level theory

The Construal Level Theory suggests that psychological distance influences the way people mentally represent the world around them. Individuals are more likely to have abstract high-level construal thoughts about more distant objects/events, and more concrete, low-level construal thoughts about closer objects/events (Liberman & Trope, 2008; Trope & Liberman, 2010). The level of construal is a way to describe and represent an object based on the complicity of people's

mental process. High-level construal requires abstract, emotion-based, ideal-oriented and superordinate mental representations, while low-level construal emphasizes more on concrete details of "how the action is to be performed" and "what objects are involved" (Trope & Liberman, 2012). Previous studies also suggested that an object's high-level characteristics have stronger influences on the identity of an object than its low-level characteristics. An individual's motivation of processing low-level information of an object is decided by its high-level features (Trope & Liberman, 2010).

Four types of psychological distance, temporal, spatial, social, and hypothetical distances, have been examined in scholarly research to measure the influences of time, physical distance, personal interaction, and possibility of an event on people's psychological reactions (Libeman & Trope, 2008; Trope, Liberman, & Wakslak, 2007). These four dimensions of psychological distance work comprehensively and collectively in impacting individuals' construal levels. As mentioned earlier, the level of construal goes up when an individual's psychological distance toward an object is increasing. The reason is that an abstract concept (high-level construal) is harder to change than a specific description of an object (low-level construal), when time (temporal distance), personal relationship (social distance), or location (spatial distance) changes. Moreover, scholars in social psychology have consistently found interactive effects among social distance, spatial distance, and temporal distance in terms of nonverbal behaviors and verbal expressions such as seat selection and use of polite languages (e.g., Boroditsky, 2007; Stephan, Liberman, & Trope, 2010; Trope & Liberman, 2010).

The CLT has been a key theoretical framework used in studies on advertising and consumer behaviors. In studying of the use of taboos in advertising, for example, Theodorakis and Painesis (2018) found the dimensions of psychological distance, associated with taboo types and construal levels, created different amount of negative attitude and reactions from consumers. In Nenkov's (2012) study, consumers showed clear preferences toward the message framed by certain psychological distance dimensions in pre- and post-decisional phases. Ryoo, Hyun and Sung (2017) reported that construal level moderates the effects of descriptive norms on sustainable behaviors. Provincial norms were more effective for low-construal-level messages, but not low-construal-level messages. In a study of online reviews, Chatterjee (2023) suggested that review characteristics have higher relative importance in low construal situation, while the impact of reviewer characteristics increase in a high construal condition. Yang and Hu (2024) examined the

impact of perceived busyness on destination advertising based on the Construal Level Theory. Results suggested that low-level construal ads were more effective for tourists with higher busyness perception, while high-level construal ads were more effective when the perception of business was low. Two mediators, the need for time efficiency and benefit focus, were also identified in the study.

2.2 Temporal distance and message concreteness

Among the four dimensions of psychological distance, temporal distance and social distance have been frequently studied in the context of social media advertising and eCommerce, such as message concreteness of users-generated content (e.g., Choi, Seo, &Yoon, 2017), online social support seeking behaviors (Davis, Anthony, & Pauls, 2015), and timing of persuasive information distribution (Kim, et al., 2016).

Temporal distance is defined as the distance in time, which can be measured as past, present, near future, distant future, and in between (Liberman & Trope, 1998; Trope & Liberman, 2003; Vasquez, 2015). Previous studies on online shopping and social media branding have consistently found that variation in temporal distance influenced individuals' purchase decision making (e.g., Septianto & Pratiwi, 2016; Vasquez, 2015) and levels of construal (e.g., Choi, Seo, & Yoon, 2017; Davis, Anthony, & Pauls, 2015). For an instance, Vasquez's (2015) rhetorical analysis of product online reviews indicated that product reviews from the remote past (long temporal distance) contained more abstract information, such as satisfaction level and product lifespan. In contrast, reviews from the present (short temporal distance) provided more detailed instructions and specific recipes. Kim and his colleagues (2016) suggested Facebook News Feed served as a long temporal distance platform and received more positive reactions for feeling-emphasized messages than function-based messages. Contrarily, Timeline was a better channel to post specific product information because of its shorter temporal distance orientation. Kim et. al (2016) reported that participants responded more favorably to an abstract description of a hotel, when they were asked to imagine traveling in the far future or a distant destination. A concrete description of the hotel was rated more favorably when they were asked to imagine traveling in the near future or a nearby location. In Wang and Lehto's (2020) study on social media advertising for traveling planning, high language abstraction for distant future travel created more favorable attitudes toward both the message and the destination, while low language abstraction for near future travel created more favorable attitudes toward the message and the destination. Bausenhart et al. (2023) conducted a

study to test the assumed association between temporal distance and abstraction level. They reported that participants responded faster when present and concrete words were assigned together and future and abstract words were grouped together. On the contrary, slower responses were recorded for present/abstract group and future/concrete group. The assumption of the association was supported.

Overall, previous research has suggested that consumers would rely on more abstract high-level construal information for objects/events in the distant future, and more concrete, low-level construal thoughts for near future objects/events. A similar pattern is expected for social media users, as well. Therefore, the current study predicts:

- H1a: For a near future event, concrete information in a Facebook News Feed ad will lead to more positive attitude-toward-the-ad.
- H1b: For a near future event, concrete information in a Facebook News Feed ad will lead to stronger brand interest.
- H1c: For a near future event, concrete information in a Facebook News Feed ad will lead to stronger purchase intention.
- H2a: For a distant future event, abstract information in a Facebook News Feed ad will lead to more positive attitude-toward-the-ad.
- H2b: For a distant future event, abstract information in a Facebook News Feed ad will lead to stronger brand interest.
- H2c: For a distant future event, abstract information in a Facebook News Feed ad will lead to stronger purchase intention.

2.3 Social distance and facebook advertising

Social distance is another frequently studied dimension of psychological distance under the CLT framework. It refers to the psychological space between two or more individuals or social groups (Matthews & Matlock, 2011; Trope & Liberman, 2010). In social media settings, social distance is frequently associated with temporal distance and message concreteness to explore an individual's decision-making behavior; and it has been measured with sociodemographic factors, closeness of virtual friends, and belongingness of social group in previous studies (e.g., Choi, Seo, & Yoon, 2017; Davis, Anthony, & Pauls, 2015; Zhao & Xie, 2011). For example, Davis and his colleagues (2015) found that changes in social distance (measured with social roles, marriage status, and socioeconomic status) generated significantly different amount of social support from

a Facebook post with specific information (concrete low-level construal message) about an upcoming surgery (short temporal distance). Huang et al. (2018) examined the influence of temporal distance and social cues on perceived usefulness of product reviews. A strong joint effect between two variables revealed that more favorable perception was generated when near psychological distance was presented in both social and temporal cues. Using "close friends" and "general public" as two ends of social distance, Choi, Seo, and Yoon (2017) discovered that social media users tended to share their recent purchase with concrete message and future purchase plan with abstract expressions, and that they preferred to share this information to close friends rather than the general public. Similar moderating effects of social distance were also found in Zhao and Xie's (2011) study of product-related user-generated content (UGC). UGC with short temporal distance from "in-group others" received greater preferences than UGC from "out-group others." However, the power of such "in-group" recommendations was insignificant for a future purchase plan.

As mentioned, social media in-feed ads typically pull in social data in message development, showing friends' interaction with brand pages (Interactive Advertising Bureau, 2015). One unique feature of Facebook advertising is "social information," which includes names of Facebook users' friends who Liked, Shared, or Commented on a sponsored brand post or page (Facebook, 2021). The strength of social ties between Facebook users and the affiliated friends in those ads could affect responses to this type of advertising (Bakshy et al., 2012; Xue & Zhou, 2019). However, the impact of this feature has not been studied within the CLT framework. In theory, "social information" could serve as a visual cue for social distance. Stronger friendship would indicate a shorter psychological distance, while weaker relationship would imply a longer psychological distance. Luan et al. (2023) indicated that, when the social distance between consumers and the brand were closer, product attributes (low-level construal) would generate a higher impact on brand assessment. When consumers were socially distant from the brand, however, price (high‐level construal) had stronger influence on brand evaluations.

Based on findings from previous research, it is predicted that social distance, in the form of "social information" in Facebook News Feed ads, moderates the congruency between temporal distance and message concreteness:

- H3: Social distance moderates the congruency between temporal distance and message concreteness in Facebook News Feed ads.

We constructed a research model for our study (See Figure 1).

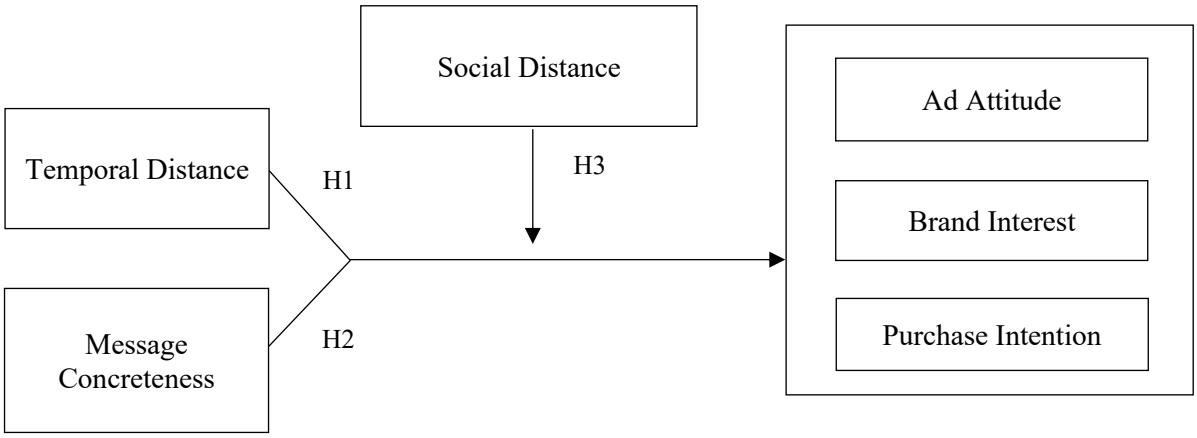

Figure 1. Research Model

3. METHOD

A 2 (social distance: low vs. high) × 2 (temporal distance: near future vs. distant future) × 2 (message: abstract vs. concrete) between-group factorial design was utilized to explore the main and interaction effects of three factors on Facebook users' attitude-toward-the-ad, brand interest, and purchase intention.

3.1 Research stimulus

After the research was approved by IRB, the first pretest (Pretest 1) was conducted to explore Facebook users' general reactions to News Feed ads with social information. Participants were recruited through Amazon's Mechanical Turk (MTurk). Previous studies have suggested that MTurk represents a larger population and is considered to be reliable (e.g., Buhrmester et al., 2011; Clifford et al., 2015). Many scholars believe that respondents recruited through MTurk are more representative than student samples (Berinsky, et al., 2012; Casler, Bickel, & Hackett, 2013).

Twenty-five workers in the United States, all current Facebook account owners, participated in Pretest 1, each was paid $1.00 USD as compensation. There were 17 males and 8 females, aged between 22 and 59. After obtaining consent, participants were asked to report their general experiences with Facebook News Feed ads, as well as their experiences with ads that contained social information. They were also asked to describe their attitude toward this type of ads. Overall, their attitude toward this type of advertising was a little lower than average (M = 3.28, SD = 1.49;

on a seven-point scale). Participants were asked to identify product categories that they regularly saw in Facebook ads. Based on the results, travel backpack, a product that is not gender- or age-specific, was selected for the current study.

The second pretest (Pretest 2) were then conducted to help develop stimulus ads and questionnaire. Another 25 MTurk workers were recruited to participate in Pretest 2. Each participant was paid $1.00 USD as compensation. There were 12 males and 13 females, mostly aged between 24 and 59 (92.0%). Stimulus ads for a fictitious travel backpack brand were created by modifying a few Facebook ads in Photoshop. The ads contained only an image of the product and very simple text descriptions (either concrete or abstract messages). No user images were included to avoid potential influence of demographic variables.

To test the level of concrete/abstract messages, participants were asked to rate if the ad "explains the benefits of the product in details," "if crucial information about the product is included in the ad," "if the ad only introduces the general purpose of the product," and "if the ad is about the ultimate goal of purchasing this product." These questions are adapted from Ryoo, Hyun & Sung's (2017) study. The ad with concrete message was rated high on concreteness (M = 5.68, SD = 0.85) and the ad with abstract message was rated relatively high on abstractness (M = 4.52, SD = 1.84).

Social distance was defined by the frequency of peer-to-peer interactions on Facebook. Similar operationalization has been used in previous research (e.g., Bakshy et al., 2012; Wang & Chang, 2013). To explore the relationships between Facebook interaction and social relations, participants were asked if "I feel closer to friends I regularly interact on Facebook, compared to those I rarely interact with," "I place more trust on friends I regularly interact on Facebook, compared to those I rarely interact with," and "Friends I regularly interact with on Facebook tend to be similar to me in terms of needs and interests." A fairly strong relationship was found between Facebook interaction and social relations (M = 4.99, SD = 1.34).

In addition, based on pretest results, "near future" was defined as a promotion that is currently going on (today and tomorrow), "distant future" was defined as a promotion that will begin in about two months (holiday shopping season).

3.2 Participants and procedure

The subject population for this study was Facebook users over 18-years old in the United States. Research participants were recruited through MTurk. Each participant was paid $1.00 USD as compensation. A total of 330 responses was received. However, six responses were removed

because they were completed under one minute and had the same answer for every question. The final sample size was 324, with 162 males (50%) and 162 (50%) females. The majority of the participants were aged between 21 and 68 (98.8%), with high school or above education (99.1%). All participants were active Facebook users and 91.7% of them (n = 297) used Facebook every day or a few times a week.

In the main study, each participant was randomly assigned to one of the eight groups – Group 1 (near future, low distance, concrete message; n=40), Group 2 (near future, low distance, abstract message; n=40), Group 3 (near future, high distance, concrete message; n=41), Group 4 (near future, high distance, abstract message; n=39), Group 5 (distant future, low distance, concrete message; n=42), Group 6 (distant future, low distance, abstract message; n=40), Group 7 (distant future, high distance, concrete message; n=40), and Group 8 (distant future, high distance, abstract message; n=42).

Eight questionnaires (one for each group) were created on Qualtrics. Each participant was provided with a URL link to one of the questionnaires and answered the questions individually at his/her own convenience. An introduction page was produced to acquire consent and to ensure the participants answer the questionnaire truthfully and to the best of their knowledge. At the beginning of the experiment, participants were asked to view the stimulus ad but not to focus too much on the graphic details, as the purpose of the study was to measure their general response to this type of ads. Then participants were then asked to imagine that they were browsing through the Facebook News Feeds and saw an ad for an unfamiliar brand liked by their friends that they regularly interacted with (low social distance) or friends they rarely interacted with (high social distance). The ad was for either a promotion that was ongoing (near future) or a promotion that would begin in four weeks (distant future). The text in the ads either described functional benefits of the backpack in detail (concrete message) or offered only a general statement about its emotional benefit (abstract message). Except for the controlled variables, all other elements in the ad were the same for all groups. After viewing the ad, participants answered questions measuring their attitude-toward-the-ad, brand interest, and purchase intention. At the end of the experiment, the participants were asked to answer a few questions about their age, gender, Facebook usage, attitude toward Facebook advertising, and product involvement.

3.3 Measures

The measurements for main variables (attitude-toward-the-ad, brand interest, purchase intention, product involvement) in this study were adapted from previous studies with necessary modifications.

Attitude-toward-the-Ad

Muehling and McCann's (1993) five-item semantic differential scale was used to measure participants' attitude toward each ad. Participants were asked to rate the ad as "good-bad," "like-dislike," "favorable-unfavorable," "interesting-uninteresting," and "appealing-unappealing". The coefficient alpha was .94.

Brand Interest

Participants' interest in the advertised brand was measured with a four-item, seven-point Likert scale developed by Machleit et al. (1990). Participants were asked if they were intrigued by the brand, if they would like to know more about the brand, if they were curious about it, and if they thought learning more about the brand would be useful. The coefficient alpha was .97.

Purchase Intention

Purchase intention was measured with a three item, seven-point scale (e.g., MacKenzie et al., 1986). Participants were asked to indicate their intention to purchase the advertised product as "probable-improbable," "likely-unlikely," and "possible-impossible." The coefficient alpha was .95.

Product Involvement

Because a specific product category (travel backpack) was used in the study, product involvement was included in the research as a covariate to minimize its potential influence. A revised version of the Personal Involvement Index (PII) created by Zaichkowsky (1994) was used, including: important/unimportant, boring/interesting, means nothing/means a lot, worthless/valuable, and not needed/needed. Cronbach's alpha reliability for this scale was .95.

4. RESULTS

Using social distance (low vs. high), temporal distance (near future vs. distant future), and message (abstract vs. concrete) as three between-group factors, a Multivariate analysis of covariance (MANCOVA) was run to investigate their impact on attitude-toward-the-ad, brand interest, and

purchase intention. Because a single product category was selected, participants' product involvement (M = 3.77, SD = 1.56) was included as a covariate to control its potential influence. Results showed significant main effects for temporal distance in attitude-toward-the-ad, $F(1, 315) = 5.23$, $p < .05$ (see Table 1). The ads for a near future event (M = 4.72, M = 1.43) generated more favorable attitude-toward-the-ad than the ads for a distant future event (M = 4.26, M = 1.56). A main effect for message characteristics was also found for attitude-toward-the-ad, $F(1, 315) = 7.93$, $p < .01$. The ads with concrete messages (M = 4.74, M = 1.42) generated more favorable attitude-toward-the-ad than the ads with abstract messages (M = 4.23, M = 1.57).

Table 1 - Multivariate Analysis of Covariance

Source	*Dependent variable*	*df*	*F*	η^2	*p*
Temporal (T)	Ad attitude	1	5.23*	.02	.02
	Brand interest	1	2.87	.01	.09
	Purchase intention	1	.54	.00	.46
Social (S)	Ad attitude	1	1.82	.01	.18
	Brand interest	1	2.84	.01	.09
	Purchase intention	1	2.04	.01	.15
Message (M)	Ad attitude	1	7.93**	.03	.01
	Brand interest	1	.57	.00	.45
	Purchase intention	1	.08	.00	.78
T × S	Ad attitude	1	0.91	.00	.34
	Brand interest	1	7.37*	.02	.01
	Purchase intention	1	.61	.00	.43
T × S × M	Ad attitude	1	4.82*	.02	.03
	Brand interest	1	4.70*	.02	.03
	Purchase intention	1	10.90**	.03	.00
Error	Ad attitude	315	(1.17)		
	Brand interest	315	(1.30)		
	Purchase intention	315	(1.18)		

Note: Values enclosed in parentheses represent mean square errors. Non-significant interaction effects were not reported. * $p < .05$ ** $p < .01$.

An interaction effect between temporal distance and social distance was found in brand interest, $F(1, 315) = 7.37$, $p < .01$. There was no difference for high social distance group. For the low social distance group, however, a near future event ($M = 4.23$, $SD = 1.71$) generated more favorable brand attitude than the distant future event ($M = 3.26$, $SD = 1.90$).

The first two hypotheses (H1 and H2) concerned interaction effects between temporal distance and message concreteness. However, no significant effects were found in this study for attitude-toward-the-ad, $F(1, 315) = .04$, $p > .10$; brand interest, $F(1, 315) = .01$, $p > .10$; or purchase intention, $F(1, 315) = .65$, $p > .10$. Therefore, H1 and H2 were not supported.

The third hypothesis (H3) explored the potential moderating effects of social distance in the congruence between temporal distance and message concreteness. Three-way interaction effects were discovered in attitude-toward-the-ad, $F(1, 315) = 4.82$, $p < .05$; brand interest, $F(1, 315) = 4.70$, $p < .05$; and purchase intention, $F(1, 320) = 10.90$, $p < .01$.

Significant results were found for low social distance groups, but not high social distance groups. For the near future event, in low social distance groups, concrete messages ($M = 5.15$, $SD = 1.18$) generated more favorite attitude-toward-the-ad than abstract messages ($M = 4.27$, $SD = 1.60$), $F(1, 78) = 8.08$, $p < .01$. Concrete messages ($M = 4.23$, $SD = 1.73$) also generated stronger purchase intention than abstract messages ($M = 3.38$, $SD = 1.71$), $F(1, 77) = 4.87$, $p < .05$. Stronger brand interest was reported for concrete messages ($M = 4.55$, $SD = 1.59$) than abstract messages ($M = 3.92$, $SD = 1.78$), but the difference was not statistically significant, $F(1, 78) = 4.87$, $p < .10$ (see Table 2). For the distant future event, in low social distance groups, abstract messages ($M = 3.51$, $SD = 1.82$) generated significantly stronger purchase intention than concrete messages ($M = 2.87$, $SD = 1.51$), $F(1, 79) = 6.56$, $p < .05$ (see Table 2). H3 was partially supported.

Table 2 - Participants' responses in different treatment groups

Treatment			**M (SD)**		
Temporal Distance	**Social Distance**	**Message Format**	**Ad Attitude**	**Brand Attitude**	**Purchase Intention**
Near Future	Low	Concrete	5.15 (1.15)	4.55 (1.59)	4.23 (1.73)
		Abstract	4.27 (1.60)	3.92 (1.78)	3.38 (1.71)
	High	Concrete	5.01 (1.41)	4.32 (1.55)	3.63 (1.95)
		Abstract	4.43 (1.38)	3.78 (1.70)	3.32 (1.83)
Distant Future	Low	Concrete	3.99 (1.43)	3.08 (1.75)	2.87 (1.51)
		Abstract	4.03 (1.65)	3.46 (2.04)	3.51 (1.82)
	High	Concrete	4.85 (1.42)	4.41 (1.61)	3.61 (1.81)
		Abstract	4.20 (1.65)	3.86 (1.95)	3.27 (1.77)

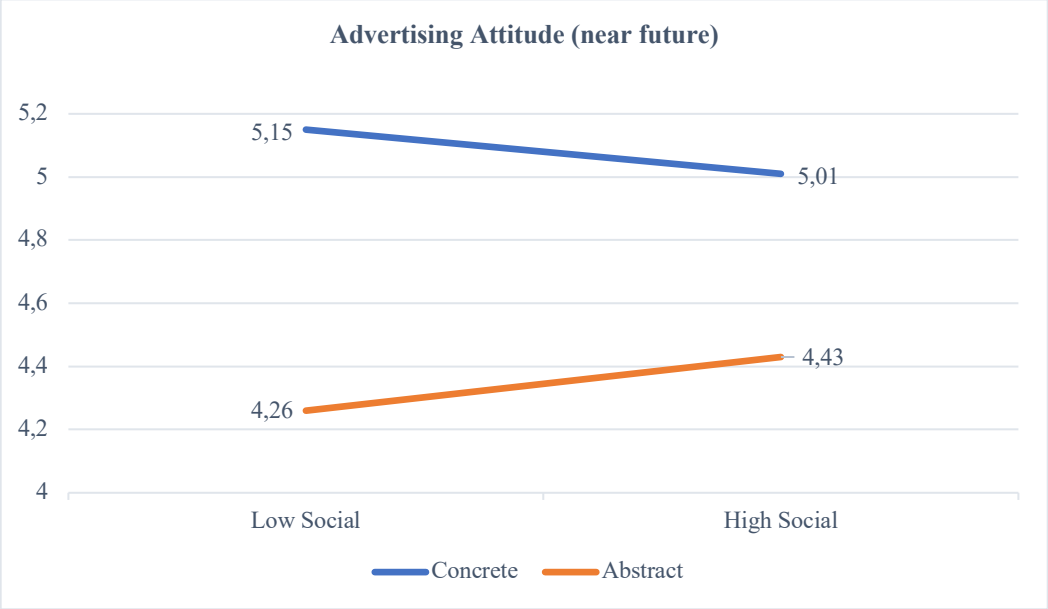

Figure 2 - Advertising Attitude (near future)

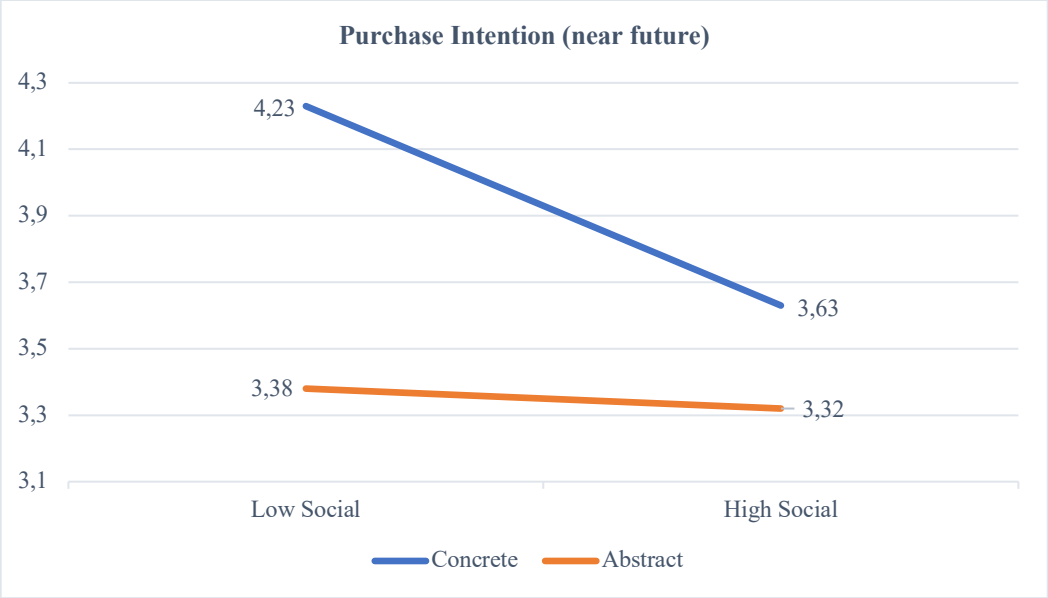

Figure 3 - Purchase intention (near future)

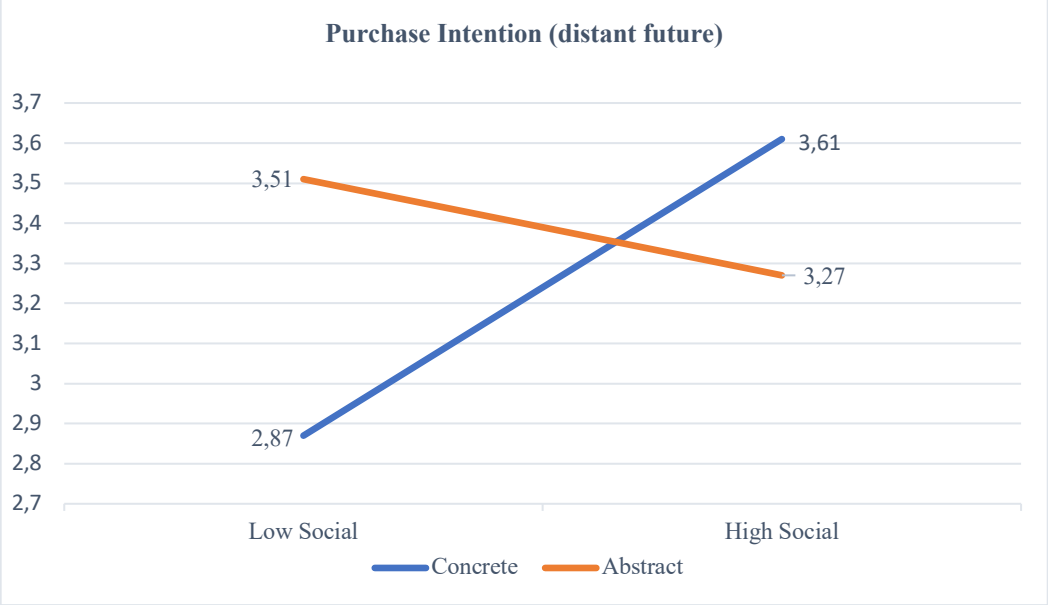

Figure 4 - Purchase intention (distant future)

5. DISCUSSION

The current study examined the effects of social distance, temporal distance, and message concreteness on users' response to Facebook advertising. Based on the CLT, it was predicted that concrete messages would be more effective for a near future event while abstract messages would lead to more favorable responses for a distant future event. The study also predicted that social

distance, defined as relationship strength between Facebook users and their friends, would moderate these effects. Main effects and interaction effects among these variables were explored.

5.1 Theoretical implications

A few significant main effects for temporal distance and message concreteness were observed. The ads for a near future event generated more favorable attitude-toward-the-ad than the ads for a distant future event. The ads with concrete messages generated more favorable attitude-toward-the-ad than the ads with abstract messages. This is generally consistent with previous research that examined source immediacy (Latané, 1981; Sedikides & Jackson, 1990) and vividness of information (Flores, Chen, Ross, 2014; Li, Daugherty, & Biocca, 2002). More recent and more vivid information usually leads to more favorable audience responses. This assumption seems to apply to social media advertising, as well.

However, the predicted interaction effects between temporal distance and message concreteness were not significant in the current study, which contradicted with findings from many previous CLT research (e.g., Bausenhart et al., 2023; Kim et. al, 2016; Vasquez, 2015). However, a few other scholars (e.g., Shin, Chung, Xiang, & Koo, 2019) also reported the absence of moderating effects of temporal distance in their studies. This probably means we should carefully examine some potentially moderating factors in each scenario.

One factor that seems to play a vital role in this study is social distance, relationship strength between Facebook users and their friends. Three-way interaction effects were found for attitude-toward-the ad, brand interest, and purchase intention, which suggested moderating effects of social distance. When the ads were affiliated with close Facebook friends (low social distance condition), interaction effects between temporal distance and message concreteness became significant. For a near future event, concrete messages generated more favorable attitude-toward-the-ad and stronger purchase intention abstract messages, as suggested by the CLT model. For a distant future event, abstract messages lead to stronger purchase intention than concrete messages, also consistent with the CLT model. This seems to suggest that, when an ad was affiliated with Facebook users' close friends, they were more likely to pay attention to the information in the ad and therefore being affected by the construal level in the message. Ads affiliated with weak social ties (high social distance), however, did not seem to influence the users. As mentioned earlier, previous research has frequently reported the positive influence of close social distance on consumers' decision-making behaviors, especially within digital media context (e.g., Choi, Seo, & Yoon, 2017; Davis,

Anthony, & Pauls, 2015; Luan et al., 2023; Zhao & Xie, 2011). This finding is also supported by studies on social influence. According to social influence theory, community behavior patterns are usually formed by majority and many of our social behaviors are influenced by others (Venkatesh & Brown, 2001). Scholars (Akar et al., 2015; Wang & Chang, 2013; Xue & Zhou, 2022) have suggested that closer social ties (i.e., low social distance) tend to increase source credibility and have stronger impact on the decision-making than weaker social ties (i.e., high social distance).

5.2 Practical implications

The above findings indicate the importance of social distance when examining temporal distance and message concreteness in a social media setting, including Facebook News Feed ads studied in this research.

Marketing and advertising professionals who plan to place advertisements on social media, especially Facebook, should definitely consider time of the event and advertising message formats. In general, events that will happen in the near future and ads with concrete messages would receive more positive responses.

The strength of social relationships should also be taken into consideration when examining the impact of temporal distance and message concreteness. Based on findings in the current research, ads affiliated with weak social ties did not affect Facebook users' overall responses to the ads. However, ads affiliated with strong social ties magnified the effects of message characteristics. Advertisers should carefully study data provided by social media platforms and promote the ads among Facebook users who frequently interact with the targeted audience, which will help create more favorable responses to the advertising message.

6. CONCLUSION

The increasing popularity of social media has sparked great interest among scholars to explore effective social media advertising strategies. Based on the Construal Level Theory (CLT), the current study examined the effects of social distance, temporal distance, and message concreteness on Facebook users' response to News Feed advertising, one of the most popular social media advertising platforms. Results suggested that social distance via Facebook moderated the congruency between temporal distance and message concreteness. When the ads were affiliated with close friends, effects predicted by the CLT were found. These findings indicate the importance of social distance when examining temporal distance and message concreteness in a

social media setting. The study tested the CLT in a social media setting, particularly the role of relationship strength among Facebook users. It adds theoretical value to existing CLT research and provides valuable insights for social media marketers.

The current study applied the CLT to Facebook advertising and generated helpful insights for digital marketers and advertisers. However, there are several limitations that suggest directions for future research. First, the use of Amazon's Mechanical Turk (MTurk) ensured a wider variety of participants as suggested by research, but there are also concerns regarding quality of data and generalization of results (e.g., Follmer, Sperling, & Suen, 2017; Stritch, Pedersen, & Taggart, 2017). One popular product category was identified through pretest and selected for the main study. Different products and services could be examined in the future to increase generalizability of the findings. One specific ad format, single-photo display ad, was used in the experiment stimulus. While it is a common format for social media ads, further research may include other types of advertising messages, especially video, which is experiencing exponential growth in recent years. Scholars could also consider other research methods, such as eye-tracking or field studies, in future research, to better understand the impact of construal level among different variables and contexts.

REFERENCES

Akar, E., Yüksel, H. and Bulut, Z. (2015), The impact of social influence on the decision-making process of sports consumers on Facebook. *Journal of Internet Applications and Management*, 6(2), 5-27.

Bausenhart, K. M., Ulrich, R., & Kaup, B. (2023). Association between abstraction level and time: Are future and past more abstract than the present? *Quarterly Journal of Experimental Psychology*. https://doi.org/10.1177/17470218231217732

Bakshy, E., Eckles, D., Yan, R., & Rosenn, I. (2012). Social influence in social advertising: Evidence from field experiments. In *Proceedings of the 13th ACM Conference on Electronic Commerce* (EC '12). ACM, New York, NY, USA, pp. 146-161.

Berinsky, A., Huber, G., & Lenz, G. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351-368.

Bhati, A., & McDonnell, D. (2020). Success in an online giving day: The role of social media in fundraising. Nonprofit and Voluntary Sector Quarterly, 49(1), 74–92.

Boroditsky L. (2007). Comparison and the development of knowledge. *Cognition*, 102(1), 118-128.

Buhrmester, M., Kwang, T., & Gosling, S. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3-5.

Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29(6 2156-2160.

Chatterjee, S. (2023). Effect of construal level on the drivers of online-review-helpfulness. *Electronic Commerce Research*. https://doi.org/10.1007/s10660-023-09716-2

Choi, Y. K., Seo, Y. & Yoon, S. (2017). E-WOM messaging on social media: Social ties, temporal distance, and message concreteness. *Internet Research*, 27(3), 495-505.

Clifford, S., Jewell, R., & Waggoner, P. (2015). Are samples drawn from Mechanical Turk valid for research on political ideology? *Research & Politics*, 2(4), 1-9.

Davis, M., Anthony, D., & Pauls, S. (2015). Seeking and receiving social support on Facebook for surgery. *Social Science & Medicine*, 131, 40-47.

de Groot, J. I. M. (2022). The Personalization paradox in Facebook advertising: The mediating effect of relevance on the personalization-brand attitude relationship and the moderating effect of intrusiveness. *Journal of Interactive Advertising*, 22(1), 57-74,

Dencheva, V. (2024). Facebook advertising and marketing - statistics & facts. Retrieved July 09, 2024, from: https://www.statista.com/topics/1559/facebook-marketing/#statisticChapter

Ding, C., Cheng, H., Duan, Y. & Jin, Y. (2017). The power of the "like" button: The impact of social media on box office. *Decision Support Systems*, 94, 77-84.

Facebook. (2023). When will my ad show with social information? Retrieved August 2, 2023, from https://www.facebook.com/business/help/1447178318880237

Flores, W., Chen, J. V. & Ross, W. H. (2014). The effect of variations in banner ad, type of product, website context, and language of advertising on Internet users' attitudes. *Computers in Human Behavior*, 31, 37-47.

Follmer, D. J., Sperling, R. A., & Suen, H. K. (2017). The role of MTurk in education research: Advantages, issues, and future directions. *Educational Researcher*, 46(6), 329-334.

FUTURE DATA STATS (2024). Native Advertising Market Size, Share, Trends & Competitive Analysis. Retrieved July 09, 2024, from: https://www.futuredatastats.com/native-advertising-market

Huang, L., Tan, C., Ke, W., & Wei, K.K. (2018). Helpfulness of online review content: The moderating effects of temporal and social cues. *Journal of the Association for Information Systems*, 19(6). Available at: https://aisel.aisnet.org/jais/vol19/iss6/3

Interactive Advertising Bureau (2015). *IAB Deep Dive on In-Feed Ad Units*. Retrieved July 15, 2023, from: https://www.iab.com/wp-content/uploads/2015/07/IAB_Deep_Dive_on_InFeed_Ad_Units.pdf

Jung, J., Shim, S. W., Jin, H. S., & Khang, H. (2016). Factors affecting attitudes and behavioural intention towards social networking advertising: A case of Facebook users in South Korea. *International Journal of Advertising*, 35(2), 248-265.

Kim, Y., Kang, M., Choi, S. & Sung, Y. (2016). To click or not to click? Investigating antecedents of advertisement clicking on Facebook. *Social Behavior and Personality: An international journal*, 44, 657-668.

Kim, J., Kim, P. B., Kim, J.-E., & Magnini, V. P. (2016). Application of construal-level theory to promotional strategies in the hotel industry. *Journal of Travel Research*, *55*(3), 340-352.

Kim, D., Sung, Y., Lee, S., Choi, D. & Sung, Y. (2016). Are you on Timeline or News Feed? The roles of Facebook pages and construal level in increasing ad effectiveness. *Computers in Human Behavior*, 57, 312-320.

Latané, B. (1981). The psychology of social impact. *American Psychologist*, 36(4), 343-356.

Lee, D., Hosanagar, K. & Nair, H. (2018). Advertising content and consumer engagement on social media: Evidence from Facebook. *Management Science*, 64(11), 5105-5131.

Li, H., Daugherty, T., & Biocca. F. (2002). Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: The mediating role of presence. *Journal of Advertising*, 31(3), 43-57.
Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75(1), 5-18.
Liberman, N., & Trope, Y. (2008). The psychology of transcending the here and now. *Science*, 322(5905), 1201-1205.
Luan, J., Filieri, R., Xiao, J., & Sun, Y. (2023). Consumer–brand relationships and social distance: A construal level theory perspective. *Psychology & Marketing*, 40, 1299-1315.
Machleit, K. A., Madden, T. J., & Allen, C. T. (1990). Measuring and modeling brand interest as an alternative Aad effect with familiar brands. *Advances in Consumer Research,17*, 223-230.
MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(2), 130-143.
Matthews, J. L., & Matlock, T. (2011). Understanding the link between spatial distance and social distance. *Social Psychology*, 42(3), 185–192.
McSpadden, K. (2015, May 14). You Now Have a Shorter Attention Span Than a Goldfish. *Time*. https://time.com/3858309/attention-spans-goldfish/
Meta Ads (2024). The ad auction explained. Retrieved July, 09. 2024, from: https://www.facebook.com/business/ads/ad-auction
Meta Ads (2024). Your customers are here. Find them with Meta ads. Retrieved July, 09. 2024, from: https://www.facebook.com/business/ads#overview
Muehling, D. D., & McCann, M. (1993). Attitude toward the ad: A review. *Journal of Current Issues and Research in Advertising, 15*, 25-58.
Native Advertising Institute (2020). The Ultimate Native ads guide. Retrieved October 21, 2022, from https://blog.nativeadvertisinginstitute.com/native-advertising-ultimate-guide
Nenkov, G.Y. (2012). It's all in the mindset: Effects of varying psychological distance in persuasive messages. *Marketing Letters*, 23, 615-628.
Ryoo, Y., Hyun, N. K. & Sung, Y. (2017). The effect of descriptive norms and construal level on consumers' sustainable behaviors. *Journal of Advertising*, 46(4), 536-549.
Schivinski, B. & Dabrowski, D. (2015). The impact of brand communication on brand equity through Facebook. *Journal of Research in Interactive Marketing*, 9(1), 31-53.
Sedikides, C. & Jackson, J. M. (1990). Social Impact Theory: A field test of source strength, source immediacy and number of targets. *Basic and Applied Social Psychology*, 11(3), 273-281.
Septianto, F., & Pratiwi, L. (2016). The moderating role of construal level on the evaluation of emotional appeal vs. cognitive appeal advertisements. *Marketing Letters*, 27(1), 171-181.
Shin, S., Chung, N., Xiang, Z., & Koo, C. (2019). Assessing the impact of textual content concreteness on helpfulness in online travel reviews. *Journal of Travel Research, 58*, 579-593.
Sramek, E. (2023). Native Advertising Best Practices (2024 Update): Programmatic Advertising. Retrieved July 09, 2024, from: https://www.scaleo.io
Statista (2024). Most popular social networks worldwide as of April 2024, ranked by number of monthly active users. Retrieved July, 09. 2024, from: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/

Stephan, E., Liberman, N., & Trope, Y. (2010). Politeness and psychological distance: A construal level perspective. *Journal of Personality and Social Psychology*, 98 (2), 268-280.
Stritch, J., Pedersen, M. J., & Taggart, G. (2017). The Opportunities and Limitations of Using Mechanical Turk (Mturk) in Public Administration and Management Scholarship. *International Public Management Journal*, 20(3), 489-511.
Theodorakis, I., & Painesis, G. (2018). The impact of psychological distance and construal level on consumers' responses to taboos in advertising. *Journal of Advertising*, 47(2), 161-181.
Trope, Y., & Liberman, N. (2012). Construal level theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology* (p. 118-134). Sage Publications Ltd.
Trope, Y. & Liberman, N. (2010). Construal-Level Theory of psychological distance. *Psychological Review*, 117(2), 440-463.
Trope, Y., Liberman, N., & Wakslak, C. (2007). Construal levels and psychological distance: Effects on representation, rrediction, evaluation, and behavior. *Journal of Consumer Psychology*, 17(2), 83-95.
Vasquez, C. (2015). Right now versus back then: Recency and remoteness as discursive resources in online reviews. *Discourse, Context & Media*, 9, 5-13.
Wang, J-C. & Chang, C-H. (2013). How online social ties and product-related risks influence purchase intentions: A Facebook experiment. *Electronic Commerce Research and Applications*, 12(5), 337-346.
Wang, S., & Lehto, X. (2020). The Interplay of Travelers' Psychological Distance, Language Abstraction, and Message Appeal Type in Social Media Advertising. *Journal of Travel Research*, 59(8), 1430-1446.
Xue, F., & Zhou, L. (2022). Understanding social influence in Facebook fundraising: Relationship strength, immediacy of needs, and number of donations. *Journal of Philanthropy and Marketing*, 28(4).
Xue, F. & Zhou, L. (2019). Social information in Facebook News Feed ads: Effects of personal relevance and brand familiarity. *Journal of Promotion Management*, 25(4), 570-588.
Yang, C. & Hu, J. (2024). Seize the time! How perceived busyness influences tourists' preferences for destination advertising messages. Journal of Travel Research, 63(3), 588-605.
Zaichkowsky, J. L. (1994). The Personal Involvement Inventory: Reduction, revision, and application to advertising. *Journal of Advertising*, 23(4), 59-70.
Zhao, M., & Xie, J. (2011). Effects of social and temporal distance on consumers' responses to peer recommendations. *Journal of Marketing Research*, 48(3), 486-496.

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