Full Length Article

Context, context, context: Priming theory and attitudes towards corporations in social media

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ARTICLE INFO

Article history:
Received 14 December 2015
Received in revised form 16 May 2016
Accepted 27 September 2016
Available online xxx

Keywords:
Public relations
Social media
Context
Priming
Twitter

ABSTRACT

Social media is one of the most contextually based media ever created. As such, the effects anticipated by priming theory would be expected to be especially strong. Using an online experiment, this study assessed the effects of linguistic tone and message relatedness present in the context of social media on publics’ attitudes toward organizations. It was expected that positive and negative tone would have positive and negative effects, respectively, and that the relatedness of the contextual prime would enhance those effects. About 100 participants in the study were randomly assigned to an experimental group to see a prime in the format of the popular social media site, Twitter. An analysis of the results showed that only negative primes had a significant effect on publics’ attitudes toward organizations, possibly reflecting an expectancy violation effect. Public relations professionals are called to engage in broader environmental monitoring to ensure their messages will be most effective.

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1. Introduction

If there has been one new technology that has enamored the public relations field of late, it has been social media. From scholarly research to self-declared gurus, there are many prevailing theories of the best way to harness this new technology. Grunig and Hunt’s four models of public relations (1984), called for a shift in the profession toward their two-way symmetrical model. Social media, ranging from Twitter to Facebook to blogs and beyond, have enabled these symmetrical conversations to take place on an unprecedented scale.

The embrace of social media has not been without its issues. From the offensive, such as Kenneth Cole’s tweet that made light of the conflict in Syria (O’Toole, 2013), to the poorly timed, such as the NRA’s “Good morning, shooters” tweet in the aftermath of the theatre shooting in Aurora, Colorado (Fitzpatrick, 2012), organizations on Twitter still have a long journey in front of them of learning how to use social media effectively.

One matter currently in hot debate is the applicability of traditional media effects models, such as framing, agenda setting, and priming (Scheufele & Tewksbury, 2007), in the world of social media. Some evidence exists to suggest that priming theory may still be a powerful tool in the web era (Mandel & Johnson, 2002), but more work is still needed. It is difficult to determine how social media context (contextual primes) affects the response of publics to corporate postings on social media. Many public relations departments are on various social media outlets having these symmetrical conversations, but are many times paying little attention to the context in which they are taking part in these conversations.

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http://dx.doi.org/10.1016/j.pubrev.2016.09.005
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Please cite this article in press as: Doyle, E., & Lee, Y. Context, context, context: Priming theory and attitudes towards corporations in social media. Public Relations Review (2016), http://dx.doi.org/10.1016/j.pubrev.2016.09.005
In this vein, this research attempts to take an experimental look at contextual primes and how they can affect individual’s attitudes towards corporations in social media. There is a need for information regarding how the context in which a social media post is viewed affects the perception of that post. Thus, the current study aims to investigate if priming is at work in social media today, and if it is, how?

2. Theoretical framework

Social media is drastically transforming the balance of power in the realm of public relations. Prior to these new media, the power was primarily in the hands of the organization that held the brand and the few news media outlets accessible to any given consumer. Today, however, public relations professionals find themselves in a place where individuals have found new influence, in a sense that “the ‘nobodies’ of the past are now the new ‘somebodies’” (Booth & Matic, 2011). Now that the consumer has a louder, direct voice, public relations professionals feel like the control of their brand is out of their hands more than ever. The corporation is no longer an elevated entity, rather, the postings of a company receive the same emphasis in a user’s social media feed as postings from their friends and family. With the exception of advertising in social media, the distinction between the “institutional and personal arenas” is incredibly low (Aula & Laaksinen, 2010).

Even in the early days of the web, researchers found that an organization’s online behavior and audience perceptions of that behavior was “far more important than overt philanthropy, donations to charities, flashy websites or even annual CSR reports printed on recycled paper” (Jones, Temperley, & Lima, 2009). Barnes (2008) further confirmed this idea with research that found that 74% of consumers made purchase decisions based at least in part on the experiences of others that were shared online. This requires a shift in public relations from a monologic model to a dialogic model—we’re more responsible than ever for conversation management, not just sending out news releases and talking to shareholders (Lewis, 2001).

With an estimated 70–80% of American online adults engaging with social media on at least a monthly basis (Duggan & Smith, 2013), social media isn’t going anywhere any time soon, but presents great risk to the attitudes individuals hold towards our organizations. Thus, we must consider how the context of social media is affecting the attitudes of our publics towards our organization. In the field of marketing, attitudes towards advertisements or brands are referred to as Aad or Abr, respectively. These are two of the most vital measurements for a marketer. As seen in Hallahan (1999), these measurements can be co-opted somewhat for research in public relations, with Aad being revised as a construct of Am, or attitude towards the message.

The increased contextualization of social media (Marwick & boyd, 2010) over other computer-mediated communication, such as email (Sproull & Kiesler, 1986) can create risk, as already mentioned, but it can also create potential benefits. Social media is creating more connections than ever between the internet and the physical world (Qj. Aggarwai, Tian, Ji, & Huang, 2012; Kennedy, Naaman, Ahern, Nair, & Rattenbury, 2007). If we can better grasp how the context of social media affects message reception and thus attitudes towards organizations, we should be able to mediate the potential risk and actually use social media to increase positive attitudes.

One of the primary theories used to study the effects of media context is priming (Scheufele & Tewksbury, 2007). Priming holds that the human brain likes to take shortcuts, in essence. If it can use a recently employed structure to interpret a new piece of information, it will do so (Valenzuela, 2009). This effect has been shown to be especially strong when the recently employed structure came from a respected figure, such as government official or news reporter (Veenstra, Vraga, Edgerly, & Kim, 2010). Most important, however, is the fact that this priming effect often takes place completely unconsciously. Many times people are completely unaware that they are interpreting information differently as a result of this priming (Herr, 1989).

There is not an extensive amount of literature directly studying priming as it relates to either public relations or digital media, but there is some that can provide helpful guidance in analyzing these effects. From a public relations perspective, we can look to Wang (2007) for a premier example of this research. Participants were variably exposed to messages that contained priming, framing, priming and framing, or none of the above. The study found that those who were exposed to priming messages used those messages in analyzing a later piece of information about an organization. Wang argues that public relations practitioners are primarily “prime and frame strategists,” emphasizing the importance of understanding these effects.

Research on internet messaging and priming has also been performed. Mandel and Johnson (2002) performed a study in which participants were primed for either price or another product factor, then given an option of product choices, one of which was stronger in the area of the price than the other. Their research found that even a subtle prime like a page background had a significant effect on the participant’s choice. Those primed with a price-related background were more likely to choose a cheap sofa than a comfortable sofa, while those primed with a comfort-related background were more likely to choose the comfortable sofa. However, they do suspect that their use of fake brands may have increased the priming effect, as the participants had no other context on which to base their decisions.

While there may be limited literature when it comes to public relations and priming, there is an immense amount of literature related to advertising and priming. A substantial amount of research has been put into how the tone of a television program affects the reception of the advertisements contained within that program. Initially, this research seemed to indicate that advertising in happy television programs was consistently more effective than advertising in sad television programs (Goldberg & Gorn, 1987). It was believed that the emotion of the television program primed these participants to respond to the advertisements differently.
Later research, however, showed that it might have been a deeper effect doing the priming. Rather than simply looking at emotion, these later studies looked at the participant’s liking of the program. This research showed that equally important with the tone of the program was the viewer’s liking of the program (Murry & Dacin, 1996). This reflects the theoretical premises of the Uses and Gratifications theory. People may watch programs with a negative tone, but if they do so willingly because they like the program, the negative tone will not have a negative effect on the advertising (Coulter, 1998).

There were other contextual priming factors that marketing researchers also had an effect on the reception of the ad. Viewers found advertisements more effective when they matched the tone of the program—they did not, for instance, want to see a comedic ad in the middle of their suspenseful drama (Lajos, Ondarbayeva, & Chattopadhyay, 2007). There is disagreement over whether high or low levels of involvement and knowledge affect the priming effects of programming. Yi (1993) found that, specifically with print advertisements, those with too much knowledge or too little knowledge about the content of an advertisement demonstrated decreased levels of contextual priming. Murry, Lastovicka and Singh (1992), however, found that those with high involvement in the product category mentioned in a particular ad were affected more strongly by contextual priming. De Pelsmacker, Geuens and Anckaert (2002) similarly found that those with high involvement were affected more strongly by contextual priming, but only when the ad was non-congruent with the prime. Similarly, they also found that those with low involvement were strongly affected by contextual priming, but in this case only when the ad was congruent with the prime.

In sum, there is an ongoing debate over whether emotional primes have an influence on consumer attitudes towards brands and ads, but that there is a leaning towards support for this idea. Also, the tone of social media postings is a fair assessment of actual opinions and emotions (O’Connor, Balasubramanian, Routledge, & Smith, 2010). Thus, it does seem that the tone of the context surrounding corporate social media postings does have the potential to prime for a positive or negative reception of those messages, and therefore have a positive or negative impact on attitudes towards organizations.

Based on the previous findings about priming, the following research question and hypotheses are proposed: ‘RQHow will the priming effect change an individual’s reception of an organization’s social media posting, and thus their attitude towards the organization?

H1. When an individual experiences a social media contextual prime that is positive in tone, they will have more positive attitudes towards corporations whose postings may be in their social media feed.

H2. When an individual experiences a social media contextual prime that is negative in tone, they will have more negative attitudes towards corporations whose postings may be in their social media feed.

H3. When an individual experiences a prime that is positive in tone towards a corporation, and then encounters a post from that organization, their perception of the organization’s posting will be affected positively, but more so than if the prime was unrelated.

H4. When an individual experiences a prime that is either negative in tone towards a corporation, and then encounters a post from that organization, their perception of the organization’s posting will be affected negatively, but more so than if the prime was unrelated.

3. Methods

3.1. Design and procedure

To test the current study’s hypotheses and research questions, an online experiment was conducted using a 2 × 2 between-subjects factorial design. The independent variables were positive and negative tone, and related and unrelated posts. Participants were males and females recruited from a mid-size public university and a small private university, both located in the Midwest, using a convenience snowball sampling technique. Recruiting happened in-person, over email, and via social media channels.

For the purposes of this study, using a corporation that a wide variety of people would have experience with was important. As such, the technology company Google was purposively chosen as the focus of this study. Many people have an interaction with the company’s products, ranging from email to search, on a daily basis. Participants were asked if they had past experience with any Google products, to which 100% of them responded affirmatively.

All participants were given a pre-test to assess their current attitudes towards Google as a corporation, using the measures from Hallahan (1999) that are described in the measures section below, as well as demographic questions about social media usage, age, gender, and education level. Participants were then automatically assigned to an experimental group by the online experiment software.

The five groups participants could be exposed to were:

1. $n_1$ – positively-toned related posts,
2. $n_2$ – negatively-toned related posts,
3. $n_3$ – positively-toned unrelated posts,
4. $n_4$ – negatively-toned unrelated posts,
5. $n_c$ – and the control group.

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3.2. **Stimuli**

On the stimuli page, participants were first shown a set of social media postings in an environment designed to look like the popular social networking site, Twitter. Each set contained 10 tweets that were crafted for tone using the O’Connor et al. (2010) linguistic tone system, as well as one additional tweet that was randomly selected from the last week of tweets posted on Google’s @Google Twitter account. All of the tweets within a set were designed to be either positive or negative in tone. For experimental conditions including relatedness as a variable, four of the tweets in the set were crafted with messages about either the technology or search industries, and six were unrelated but consistent in tone. These tweets were pre-tested to demonstrate that members of the sample population found these tweets to match the prescribed tone. Two posts were found to not match the desired tone, and were discarded. To adjust the experimental condition to control for as many variables as possible, all conditions were adjusted down to 9 posts and the Google Twitter account.

After exposure to the stimuli, a post-test was given that is described in the methods section below. This used the same attitude measures as the pre-test, to allow for easy comparison between the pre- and post-test conditions.

3.3. **Measures**

This study had just one dependent variable, attitudes towards corporations. Existing measures were adopted from Hallahan (1999) to measure this variable. This consisted of two bivariate semantic-differential scales using a seven-point scale. Participants were asked how well they felt each word described Google. The first measure consisted of six polar pairs: good/bad, pleasant/unpleasant, high quality/low quality, like it/don’t like it, desirable/not desirable, and committed/uncommitted. Half of the items were reversed in polarity to ensure accuracy, and the order of the items was randomized. The second measure looked at attitudes about corporate believability, and consisted of five polar pairs: informative/not informative, trustworthy/untrustworthy, accurate/inaccurate, convincing/unconvincing, and believable/not believable. Two of these items were reversed in polarity, and all items were randomized in order.

Two covariates were also used: usage of Google products and familiarity with Google as a company. Usage of Google products was presented as a simple yes/no measure, while familiarity was measured using a seven-point Likert scale as described in Wang (2007).

3.4. **Data analysis**

This study used a blended design for data analysis. Paired-sample *t*-tests were used to check for significant differences between the pre- and post-tests within single IV groups. A mixed two-way ANOVA was also used to simultaneously check for within-subject and between-subject variances between the experimental groups. This allowed for the exploration of whether more than one of the IVs had an impact on the results simultaneously.

4. **Results**

4.1. **Demographics**

Data collection resulted in a study population of *n* = 46 males and *n* = 52 females for a total of 98 valid participants. The population was found to be normally distributed for the three demographic variables collected, gender (SD = 0.502), age (SD = 1.02), and education level (SD = 1.06). Age distribution was: 18–24, *n* = 49; 25–34, *n* = 25; 35–54, *n* = 22; 55–64, *n* = 6; 65+, *n* = 1. Education distribution was: high school or equivalent, *n* = 10; 2-year college degree, *n* = 3; some college, *n* = 45; 4-year college degree, *n* = 38; master’s degree, *n* = 5; PhD, *n* = 1; professional degree, *n* = 1.*

Participants were randomly assigned to one of the five experimental groups (four treatment groups and one control group). The valid population of each group was *n*1 = 20, *n*2 = 18, *n*3 = 21, *n*4 = 19 and *n*5 = 20.

4.2. **Hypothesis testing**

Hypothesis 1 was also tested using a paired-samples *t*-test, as it was analyzing just one level of one IV between a pre- and post-test. Pre-test scores showed attitude to be *M* = 5.95, *SD* = 0.802. There was a slight uptick in participants’ attitudes towards Google in the post-test, but this miniscule difference (*M* = 5.97, *SD* = 0.914; a difference of *M* = 0.022) was not enough to show any significance (Table 1). The null hypothesis fails to be rejected, indicating that a positive contextual prime does not have a significant positive impact on the attitudes of target corporations, in this case Google.

Hypothesis 2 was also tested using a paired-samples *t*-test. The pre-test of these participants showed that attitude towards Google was *M* = 6.15, *SD* = 0.767. Post-testing indicated a drop to *M* = 5.93, *SD* = 0.771, a difference in *M* = −0.216. This difference was shown to be significant at the *p* < 0.05 level. Participants exposed to a negative social media prime, whether related or unrelated to Google, showed a significant decline in their attitudes towards the organization.

A mixed ANOVA was used to assess Hypotheses 3 and 4 with two IVs and both within- and between-subjects effects proposed. A summary of these findings can be found in Table 2. The ANOVA reflected the results of the above two hypotheses,
Table 1: Differences between Pre- and Post-test for Positive/Negative Measures.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>5.95 (0.802)</td>
<td>5.97 (0.914)</td>
<td>0.022 (0.309)</td>
<td>0.648</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>6.15 (0.767)</td>
<td>5.93 (0.771)</td>
<td>0.216 (0.534)</td>
<td>0.013</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>5.98 (0.706)</td>
<td>6.10 (0.753)</td>
<td>0.115 (0.279)</td>
<td>0.089</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Differences Between the Pre- and Post-tests by Tone and Relation.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th></th>
<th>Post-test</th>
<th></th>
<th>DiffRel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Related</td>
<td>Unrelated</td>
<td>Control</td>
<td>Related</td>
<td>Unrelated</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Pos</td>
<td>5.98 (0.699)</td>
<td>5.91 (0.905)</td>
<td>5.98 (0.801)</td>
<td>5.96 (1.03)</td>
<td>0.004</td>
</tr>
<tr>
<td>Neg</td>
<td>6.03 (0.860)</td>
<td>6.25 (0.672)</td>
<td>5.79 (0.818)</td>
<td>6.06 (0.718)</td>
<td>0.244</td>
</tr>
<tr>
<td>Con</td>
<td>5.98</td>
<td>0.687</td>
<td>6.05</td>
<td>0.759</td>
<td>0.070</td>
</tr>
</tbody>
</table>

5. Discussion

The results of this research demonstrate that the priming effect of contextual tone is at play in social media as it is in other forms of media, like television. The lack of support for the first hypothesis is somewhat surprising, given the results of Goldberg and Gorn's (1987) research, which supported this kind of effect with television advertising. There was significant support, however, for the second hypothesis that negative contexts would result in more negative attitudes towards organizations.

This kind of result may be understood through the framework of users’ liking of the content they encountered. Murry and Dacin (1996) and Coulter (1998) found that the negative effects of a prime that did not match the context were mitigated when the viewer liked the content they were consuming and it met a media use or gratification for them.

Past research shows that the majority of social media users take part in the networks as a way to connect with others (Smith, 2011) and escape from the realities of their everyday lives (Cha, 2010). Cha found the escapism motivation to be especially strong in younger users—a substantial portion of the study population. These uses would seem to suggest that people engage in the use of social media for positive reasons, and thus expect positive content to be presented to them. An early analysis of the tone of content on Twitter found that over half of content on the platform is positive, while just about a third is negative (Jansen, Zhang, Sobel, & Chowdury, 2009).

Thus, these results may be a result of expectancy violation. Individuals have certain expectations of the interpersonal communication activities they engage in, and when those expectations are violated, they have to more actively process information, often, but not always, leading to negative assessments of those they are engaging in conversation with (Griffin, 2011). As an interpersonal medium, Twitter is subject to this effect. Much like we may have a bad response to someone making depressing comments at a fun party, the same kind of response may be taking place. Users expect a positive context on social media, thus it does not significantly impact their perspective. When their expectations of escapism and positivity are violated, however, their analysis is changed significantly.

This idea would support the findings of De Pelsmacker et al. (2002), but applied to social media. As 99% of respondents in this study indicated that they currently use Google products, there is a high level of involvement for them in this context. Thus, the appearance of the positive message from Google in the midst of a negative contextual prime violated expectations and resulted in a more negative assessment.

The third and fourth hypotheses, about the relatedness of context having a significant impact on attitude towards an organization, were not supported. This seems to violate the findings of Wang (2007) in the area of priming and framing in public relations. That research showed that related primes had a significant impact on attitude towards organizations. It did not, however, show any unrelated primes. It is possible that had relatedness and tone been considered together in Wang that results similar to this study would have been found.

An explanation for this phenomenon is harder to develop. Common sense thinking in public relations would seem to suggest that negative news about your organization would have the most significant impact on attitudes towards your organization and its messaging. However, the findings here violate that common thinking—overwhelmingly negative contexts,
regardless of relatedness, matter. Releasing a positive message into this environment may be seen as flippant towards the negative context—resulting in the outcomes seen here.

The results found in this research demonstrate that tone, not relatedness, is the main prime that matters in public relations practice in social media. The implications of this finding are discussed in more detail below. While just a small piece to the broader puzzle of understanding social media best practices, this research hopefully provides a solid foundation for future exploration into how priming effects are present in social media.

5.1. Implications for public relations practice

The results of this research help us to understand better how to perform public relations in the social media realm. The results clearly demonstrate that a negative environment, regardless of those negative messages being related to the organization, have a negative impact on public’s perceptions of our organizations. Thus, the first and most basic implication of this finding from the current research is to always ensure our messages are released into a positive environment. This may require more intentionality in posting that public relations teams have traditionally used in scheduling their messages. Instead of just scheduling messages days or weeks in advance, public relations professionals may have to take a more responsive approach to messaging.

Second, this reiterates the idea that public relations is primarily a profession of environmentally responsive storytelling (Dozier, 1986; Scheufele, 1999). We have to understand that the priming effect is at work, even in social media, and must be taken into account. It is critically important that we do what we can to assess the environment into which our messages are released. While practitioners cannot know exactly what is present on their followers’ streams, they can gain a general sense of the environment and adjust tactics accordingly. It is imperative that practitioners keep up with a wide variety of publics on social media to know what kind of conversations they are having, even if unrelated to the organization. This is unlike much public relations practice which just tracks the messages in social media about one particular organization. This may require a dedication of additional resources to social media monitoring above what currently takes place in many organizations.

Third, we learn that, interestingly, bad news for anyone is bad news for your organization. This is especially pertinent as the bad news does not have to be a business or organization—the negative tone used in the study was just that of individuals’ negative experiences. There may be some chance, as seen in the television advertising research done by De Pelsmacker et al. (2002), of mitigating the negative tone effect by matching it, but further research is needed to be certain.

5.2. Limitations and future studies

There are challenges for any social media research using an experimental design, as it separates the media from the very context that makes it “social” media. This limitation is far more difficult to mitigate, as the research must be conducted using posts from strangers the participants do not know. Additionally, the tone of messages in real-world environments are often more complex than an experimental method can account for.

Although we believe that the insights gathered from this exploratory priming effect in social media are very important, it would be beneficial to increase the number of tone types tested in order to fully assess the effects of tone.

Also, this study did not consider the tone of the organization’s post. The post used in this study was positive in tone, but a negative post could create different results. This presents an opportunity for future researchers. Since social media has played a crucial role in crisis events, some researchers examined the influence of medium and messages in people’s perception of reputation and secondary reactions (Schultz, Utz, & Göritz, 2011). It will be very informative to test the interplay of crisis communication strategies, medium and priming effects.

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