SEEDS OF CHANGE: SUBSTANCE AND INFLUENCE IN BRAND COMMUNITIES

Completed Research Paper

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Abstract

Corporations use social media to build online communities, in order to create and maintain product loyalty and source new product ideas. Community members discuss the corporation's products, services, or practices. Topics range from suggestions for products, enhancements, or services. Users communicate their grievances to each other and the company, hoping to garner support and change. Posted messages contain not only the substance of their claims, but also cognitive and affective influence tactics. How do these embedded influence tactics mitigate the efficacy of claims in persuading others to support the burgeoning movement? Results provide partial support for the model developed, indicating that (1) efficacy of claims on community comments was negatively moderated by negative affect and assertiveness; (2) efficacy of claims on points awarded by community members was positively moderated by rational persuasion; (3) efficacy of claims on comments by corporate employees was positively moderated by rational persuasion.

Keywords: brand communities, influence, social movements, computer-mediated communication
Introduction

Brand communities are becoming an integral part of corporate communication and innovation strategies. Harley-Davidson uses a brand community to strengthen the commitment and loyalty to their brand and associated lifestyle (2009). Dell computers used their corporate online community, Dell IdeaStorm, as a source of new ideas and innovations (Di Gangi and Wasko 2009). Starbucks’ MyStarbucksIdea.com is another corporate online community for customers to gather and discuss ways to improve the product, the atmosphere, or the ways Starbucks can become more involved in the community or social issues.

Brand communities are “a specialized, non-geographically bound community based on a structured set of social relations among admirers of a brand” (Muniz and O’Guinn 2001). They are a form of social media, defined as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (boyd and Ellison 2008). Facebook and Twitter are exemplars of social media that enable individuals to communicate with each other for hedonic reasons. Brand communities, on the other hand, are instrumental uses of social media, created by corporate sponsors to develop a community of loyal patrons to and enable them to share ideas about the company, the brand, and the product or service. Individuals join these communities to develop new relationships with others who share the loyalty to the brand (Fournier and Lee 2009). Corporations use these communities as a part of their relationship marketing to maintain a dialog with community members and enhance brand loyalty (Andersen 2005). By harnessing the knowledge of such communities, corporations may reduce customer service costs (Moon and Sproull 2008). Community-based “open” innovation enables corporations to decrease both innovation costs and ramp up product-to-market cycles (Chesbrough 2007).

These communities allow individuals to identify ideas and comment on ideas identified by others. Sponsoring firms monitor users’ participation in discussion forums with an eye toward early identification of ideas that gain traction within the community. Early identification of problems is beneficial in that it permits the sponsoring firm to head-off customer dissatisfaction with products and services and forestall dissonance. Early identification of opportunities identified by the community can convey first mover advantage to the sponsoring firm. Given the richness of participation on many of these communities, how can firms identify such problems and opportunities early? While the computer-mediated communication (CMC) literature has yielded rich insights into how individuals in assigned online groups attract attention to their information and opinions in solving assigned problems (Dennis 1996; Tan et al. 1998; Zigurs et al. 1988), there is little in this literature to suggest how these processes unfold when both group and task are emergent. Yet, it is critical for firms to understand how a particular issue attracts community attention and support, how the issue becomes a problem the firm has to address, or when an issue might yield a successful new product or service opportunity for the firm.

The objective of this paper is therefore to understand characteristics of the original post that elicit responses from other community members. Following earlier work (Kim and Miranda 2011), we analyze such posts to the initiation of a social movement. We focus on the first message with a view of understanding whether and how qualities of this initial posting can predict a “movement.” A social movement is an informal collection of individuals that converge around issues related to social justice and change (Tilly 2004). Movements emerge as individuals translate their “private troubles” into “public issues” (Mills 1959).

Following the social movements literature, Kim and Miranda (2011) focus on the substance of the messages. Influence tactics embedded in the messages enhance or attenuate the attention the message receives though (e.g., Tan et al. 1998). Because of the ephemeral nature of face-to-face interactions that have characterized movements until fairly recently, the micro-level exchanges that constitute them have not been available for analysis. Consequently, the social movements literature has little to say about how the manner in which a message is couched facilitates or impedes target audience receptivity to its substance. This research therefore contributes to the social movements literature by speaking to the manner in which micro-level exchanges influence how a movement unfolds. It contributes to the literature on community-based innovation by shedding light on how community grievances and wants are identified and agreed upon. It also contributes to the CMC literature, indicating how the substantive and
tactical elements of computer-mediated messages are implicated in authors’ ability to construct an intersubjective reality around an “issue.” Finally, it contributes insights to the fledgling research on brand communities, suggesting ways in which interactions on these communities may be conceptualized.

The paper is organized as follows. The next section discusses the substance and influence tactics found in messages in brand communities. Specifically, substance will be described in terms of claims made by the author. Two types of influence tactics will be discussed: cognitive and affective influence. The next section describes the theoretical model. The method used to test the model and our results will be followed by a discussion of the findings.

**Substance and Influence in Computer-Mediated Communication**

The focal question of this research is: given the richness of participation on communities, how can firms identify discussion threads that foreshadow problems and opportunities early in their development? Specifically, what are the characteristics of the initial message that predict the traction that it will garner within the community? “Traction” refers to the quality and quantity of response that a message garners from the community and focal corporation.

Following our earlier work, we note that one salient feature is the substance of the initial posting, which may be understood in terms of the claims articulated therein (Kim and Miranda 2011). We build on this by examining the extent to which the efficacy of this substance in garnering traction is moderated by the influence tactics – deliberately or unwittingly – embedded in the message.

**Substance: Claims**

In order to understand the substance of the original message, we borrow from the social movements literature. A social movement is collective action oriented toward social change. A social movement is comprised of three components. The three requisite components of a social movement are (1) that the individuals are involved in a conflictual relationship, (2) that they are linked through a dense informal network, (3) that they share a distinct identity (Della Porta and Diani 2006). Although this literature was developed to help understand social phenomena such as the civil rights movement, the suffragist movement and reforming workers’ rights, it can shed light on instrumental communications in brand communities. The stakes involved may not be as dire in brand communities, but the process of mobilizing support for a proposed change from unknown peers in order to elicit change from the company parallels the social movement process of mobilizing supporters who are individually powerless in order to garner concessions from powerful others.

There are three claims that are important to initiating a movement: program, identity and standing claims (Tilly 2004). Program claims describe what action is to be taken. For example, the civil rights movement in the United States promoted civic equality along racial lines. Identity claims are proclamations by the speaker of membership in a category or group of people. Usually, a common name is used to describe the group: women, African-Americans, or coal miners. Standing claims invoke relationships that are able to confer legitimacy. For example, the unions often spotlight their relationships with political actors who support their cause.

Borrowing from the social movements notion of claims, Kim and Miranda (2011) modeled these three claims as aspects of the substance of a message that are relevant to identifying “issues” within online communities. As the claims embedded in a posting increase, the posting is more likely to garner support because (1) a stated program claim increases the likelihood that the grievance is understood, (2) a stated identity claim increases the likelihood that people will perceive that the grievance is relevant to them, and (3) a stated standing claim increases the likelihood that people will perceive that the issue is legitimate. The following passage from the Starbucks brand community contains all three claims:

*I am a Starbucks gold card member and I love it! But what I don't love is waiting for my free drink and other exclusive coupons that I get for being a member through snail mail. I think that these special offers should be loaded right onto the card so that the next time I go to order a drink it will automatically take effect. Not only will this eliminate the*
waiting period but it takes the greener cause into effect. Get rid of the paper postcards that you mail out daily....send it to us immediately through our cards!

The identification claim is in the first sentence, “I am a Starbucks gold card member...”. The program claim is for Starbucks to load special coupons directly onto the gold card as opposed to receiving paper coupons through the mail. The standing claim is the reference to the green movement (‘greener cause’) which is a movement to encourage minimizing our impact on the environment. Messages that effectively articulate these three claims are more likely to initiate a movement (Kim and Miranda 2011).

Influence

Influence is the change in one’s beliefs or action due to an external force (Guadagno and Cialdini 2005). Authors influence others in the community not just through the substance of their messages, but also by influence tactics embedded in their messages. The basis for online influence differs from face-to-face interaction, where attributes such as physical appearance are often salient (Guadagno and Cialdini 2005). Understanding influence in brand communities can be even more problematic because of the heightened level of anonymity. In other words, while members of conventional CMC teams may sometimes be unaware of the source of a comment, they are typically aware of the identity of conversation participants or at least characteristics of the group from which those participants may be drawn (e.g., Kahai et al. 1998). On the other hand, while CMC moderates the salience of status and expertise by reducing participant access to associated cues (Dubrovsky et al. 1991), social media often resurrects the salience of these factors via cues such as electronic badges and other signals of prominence.

To make sense of influence in online communities, we model influence based on Petty and Cacioppo’s (1984) elaboration likelihood model (ELM). These researchers posited two methods through which people respond to persuasive information. The first is the central information processing route, which entails careful deliberation of presented information. The second is the peripheral route, through which information is processed when an individual forms an opinion based not on the factual merits of a message, but instead on superficial, peripheral cues such as affect. This model thus highlights two types of cues implicated in persuasion – affective and cognitive cues.

ELM also sheds light on the role of media in determining how individuals process persuasive information. Individuals have been found to use the central processing route more frequently when evaluating CMC messages (Matheson and Zanna 1989). This is likely because of the paucity of emotional cues available via online communication at the time. However, not only have online media evolved in their capacity to transmit social cues, more importantly, our capacity to both transmit and perceive emotional cues increases with our ongoing use of online communication media (Carlson and Zmud 1999). Consequently, both processing routes should be available to participants of online communities.

Affect Infusion (Affective Influence)

Forgas defined affect infusion as “the process whereby affectively loaded information exerts an influence on and becomes incorporated into the judgmental process, entering into the judge’s deliberations and eventually coloring the judgmental outcome” (Forgas 1995). Affect has been shown to impact behaviors through cognitive process, i.e., in the way readers judge a message (Foo et al. 2009; Forgas 1995). Simply put, emotions color our judgment. Displays of positive emotion have been found to induce positive affect in others (Pugh 2001) and displays of negative emotion similarly have been found to induce negative affect (Barsade 2002).

The sample posting quoted above uses emotional words to describe the author’s attitude. Affective influence entails primitive or deliberate communication of positive or negative affect (Barsade 2002; Hatfield et al. 1994). Researchers have observed that expressions of emotion evoke mirrored responses from others (Hatfield et al. 1994). Such affect modulation “evoke[s] or alter[s] sentiment in such a way as to cause the redefinition of a situation” (Donnellon et al. 1986).

Communicated affect influences information processing in two ways. First, as noted above, emotions are contagious. Infused emotion subsequently determines people’s judgments of target information. For
example, Wehmer and Izard (Wehmer and Izard 1962) found happy subjects to assess a target more positively than did unhappy subjects. Second, emotions influence judgments through affect-based priming, whereby positive affect “primes” the peripheral route and negative affect the central processing route (Forgas 1995).

Positive affect has been found to increase social activity (Watson 1988). It is generally found to enhance creativity (Isen 2002). Entrepreneurs with positive affect are more creative, more able to recognize opportunity, and better able to navigate uncertain business condition (Baron 2008). In negotiation, positive affect diminished use of contentious tactics (Carnevale and Isen 1986). In the context of strategic decision making, positive affect has been shown to increase individuals’ perception of information as opportunity rather than risk (Mittal and Ross 1998). A positive affective state (mood) has been found to be positively related to cooperative behavior (Barsade 2002; George 1991). Positive affect enhances creativity, cognitive flexibility, and problem solving skills (Estrada et al. 1994; Isen and Means 1983).

Negative affect, in contrast, has been found to enhance experienced stress (Watson 1988). It tends to result in more pessimistic judgments (e.g., Wehmer and Izard 1962). Negative affective states increase systematic message processing (Schwarz et al. 1991). Subjects experiencing negative affect were found to perceive outcomes to be more negative (Mittal and Ross 1998). Angry subjects were found to process make disproportionate judgments based on stereotype and status cues, relative to sad or neutral subjects (Bodenhausen et al. 1994).

**Cognitive Influence**

The efficacy of the message substance is also mitigated by the cognitive influence tactics embedded in a message. By cognitive influence, we mean verbiage that explicitly attempts to persuade rather than simply document or emote. In a meta-analysis of cognitive influence, of the six influence tactics used by workers that were meta-analyzed, i.e., ingratiation, self-promotion, rationality, assertiveness, exchange and upward appeal, the two tactics that were studied the most frequently and were found to significantly impact both subjective performance assessments and objective success criteria were rational persuasion and assertiveness (Higgins et al. 2003). We therefore limited our investigation of cognitive influence to these two tactics.

Rational persuasion refers to “using data and information to make a logical argument supporting one’s request” (Higgins et al. 2003). The use of rationality or making a logical argument is oft use influence tactic (Higgins et al. 2003). Rational persuasion was found to be a successful tactic in obtaining raises, high performance reviews, and promotions (Higgins et al. 2003). In this case, rational persuasion elucidates the causal structures underlying the claims. In the sample message above, the author suggests that “Not only will this eliminate the waiting period but it takes the greener cause into effect.” The justification is that the action will have the benefits of improving efficiency and reducing waste.

The second cognitive influence tactic considered here is assertiveness. Assertiveness is the use of forceful means to obtain desired results (Higgins et al. 2003). Higgins et al found that while assertiveness correlated positively with success in terms of raises and promotions, it correlated negatively with subjective performance assessments of the person exercising assertiveness (Higgins et al. 2003).

**Research Model and Hypotheses**

The research model is presented in Figure 1.
Kim and Miranda (2011) noted the salience of the substance of a posting, vis-à-vis the claims articulated, in engendering traction. This research raises the question of how cognitive and affective influences embedded in the posting strengthen or weaken the effectiveness of claims articulated. Individuals who belong to the same social group as the claimant are more likely to feel an affinity for the claimant and lend support. The program claim describes the proposed action. Members of the community will assess the program claim and decide if it is feasible and worthy of pursuit. Finally, standing claims, which give legitimacy to the program claim, may sway others to believing in the worthiness of the cause.

We posit though that effects of these claims are mitigated by the affective and cognitive influence tactics embedded in the posting. We now consider the manner in which the two affective influences – positive and negative affect – and the two cognitive influences – rational persuasion and assertiveness – intervene in the traction that claims garner.

As noted earlier, readers of a message will respond to the affect infused into the message as well as to the message itself and the manner in which the message is presented. In particular, we noted that positive affect induces positive judgments. Consequently, messages that communicate positive affect are liable to garner greater traction, receiving more positive votes (which culminate in points earned) and comments. Because positive affect induces a creative mindset, readers of messages infused with positive affect will be more receptive to new and novel ideas and, when they disagree, are more likely to find ways of creatively reconciling their perspectives with those articulated in the initial message (Isen 2002). Thus, readers of messages of positive-affect-infused messages will evaluate the idea with a more open mind. We hypothesize that an idea will gain more traction if the message contains program, identity, and standing claims and positive emotions.

_Hypothesis 1:_ The relationship between claims and idea traction will be strengthened with positive emotion infused in the message.

On the other hand, negative affect has been found to culminate in negative judgments. Further, through “priming” of the information processing pathways, readers experiencing negative affect will tend to process the information communicated more systematically. Then, because negative affect shuts down creative problem-solving, they will be less able to creatively reconcile substantive differences. Consequently, when messages communicate negative affect, they are likely to attract negative reactions from the community in terms of votes and comments.

_Hypothesis 2:_ The relationship between claims and idea traction will be weakened with negative emotion.

It is not enough to simply assert a claim. Sussman and Siegal (2003) have argued that the quality of the argument is an important antecedent to the perceived usefulness of information. Further, ELM suggests that the central processing route is invoked more frequently when individuals process information that is personally relevant to them (Petty and Cacioppo 1984). Identity claims, in particular, aim to personalize the message to prospective readers and thereby attract their attention. This personalization means that they will process information contained in the message systematically though. Consequently, rational
persuasion, whereby the author logically sets out the case (s)he wishes to make, is essential to ensuring reader buy-in to such claims. Haphazardly structured messages containing an identity claim are liable to be particularly unsuccessful. To a lesser extent though, by attempting to translate the author’s personal troubles into a public issue, program and standing claims also attempt to garner reader identification with the cause. This perspective is supported by research that demonstrated that subjects that were personally concerned with the outcome of a decision were influenced by messages with strong arguments to a greater extent than when they were not personally affected by the outcomes (Petty et al. 1983). We therefore hypothesize that rationally argued messages with strong claims will be the most successful.

**Hypothesis 3:** The relationship between claims and idea traction will be strengthened with rational persuasion.

In general, assertiveness garners attention (Derber 1979). This attention may be negative though, as evidenced in research findings of the negative correlation between assertiveness and subjective performance appraisals (Higgins et al. 2003). In fact, assertiveness is what Derber (1979: 21) terms “being civilly egocentric” and engenders competitive, rather than collaborative, conversations.

The purpose of communication is not simply to share information, but to collaborate with others in constructing an intersubjective reality (Miranda and Saunders 2003). Claims that are both assertive and complete will not invite such participative construction of meaning. The completeness of the claim will leave little room for elaboration and the assertiveness will dissuade community efforts to participate in the social construction of meaning. Assertive framing of claims will therefore result in fewer responses. The competitive dynamic introduced by assertiveness (Derber 1979) though will prompt community members to highlight deficiencies in assertive articulations of incomplete claims. In particular, research on information processing has found that individuals in a competitive frame process information more systematically, identify more logical inconsistencies, and make more negative attributions about those inconsistencies than do individuals in a collaborative frame (Ruscher and Fiske 1990). We therefore anticipate that assertiveness will diminish the efficacy of claims.

**Hypothesis 4:** The relationship between claims and idea traction will be weakened with assertiveness.

**Methods**

Data were collected from MyStarbucksIdea, an online brand community that Starbucks launched in March 2008. This virtual space enables customers to dialog among themselves and with the company, extending the coffeehouse experience beyond the brick-and-mortar locales.

After registering with the site, customers are encouraged to post ideas pertinent to three categories of Starbucks’ engagement: Products (e.g., food, beverages, loyalty cards), Experience (e.g., payment and atmosphere), and Involvement (e.g., community building and social responsibility). Once a customer posts an idea, others can comment or vote on the idea.

Along with the posts, the site serves as a rudimentary social networking site. Individuals are able to post information about themselves, such as location, favorite drink or even upload a photograph. The site also posts statistics about the contributions made by a customer, including number of ideas submitted, number of positive votes received, and number of comments and votes submitted.

We used the Linguistic Inquiry and Word Count (LIWC) software (Pennebaker et al. 2006) to measure the influence constructs. LIWC distinguishes between style words and content words. Style, or function, words help structure the sentence grammatically. Approximately 55% of spoken words are style words. Content words include pronouns, prepositions, articles, conjunctions and auxiliary words. Content words reflect the attentional focus, social relationships, emotion, status, social coordination honesty and thinking styles of the speaker. Each of the words in a text is compared to a dictionary of words that are each assigned to a pre-defined category. The categories in the LIWC dictionary have previously been developed, validated, and refined through extensive psychometric evaluation. LIWC has subsequently been used in over 120 peer reviewed articles, many of which have appeared in premier journals such as
the Journal of Applied Psychology and the Journal of Personality and Social Psychology (Tausczik and Pennebaker 2010). Examples include articles researching the usefulness of deception detection tools (Fuller et al. 2009), benefits of expressive writing (Barclay et al. 2005), and psychometric analysis of the lives of students (Mehl and Pennebaker 2003).

**Sampling Approach**

The dataset comprised 160 discussion threads. Half this sample consisted of ideas that were under consideration by Starbucks and labeled Ideas in Action. A matched sample from Starbucks forums not tagged Ideas in Action was then constructed. These threads were selected to match the posting date and category of each thread appearing in the Ideas in Action sample.

**Independent Variables**

**Claims:** The original message was coded by at least one of the researchers to determine which of the three types of claims were present. One point was given for each type of claim with a range from zero to three points per comment. All of the messages contained a program claim; however, not all messages contained an identity claim or standing claim.

**Influence Strategies:** The texts of the initial postings, stripped of message headers, timestamps, and author information, were placed into individual text files. These files were then subjected to the Linguistic Inquiry and Word Count (LIWC) (Pennebaker et al. 2006), which automatically codes for constructs based on the presence of words matching the program’s dictionary entries associated with the construct. This approach has previously been used to analyze online communications, including constructs such as affect and assertiveness (e.g., Huffaker 2010).

The rational persuasion metric summed two LIWC cognitive process constructs that speak to authors’ efforts to persuade using rational arguments: cause and inhibition. Examples of causation words include cause, know, and ought. Inhibition words include block, constrain, and stop. Assertiveness was measured as the difference between the LIWC dictionary categories of certainty and tentativeness. The frequency of certainty words is based on terms such as always and never. Words in the tentativeness category include maybe, perhaps, and guess.

Positive emotion was assessed as the number of positive affect words used. Sample words include love, nice, and sweet. Negative emotion was likewise assessed as the count of negative affect words such as hurt, ugly, and nasty.

**Dependent Variables**

In order to ascertain the traction the initial posting garnered, we considered community support in terms of points allotted to the postings and comments in response to the posting and corporate support in terms of comments from Starbucks employees.

**Number of points (Points):** Registered users are able to vote on contributed ideas with a thumbs-up or thumbs-down. The site provides only aggregated votes, i.e., total votes for minus total votes against multiplied by 10. The total number of votes for and against an idea is not given. Because votes against may outnumber votes in favor of an idea, points may be negative.

**Number of comments by community members (Comments):** The number of comments reflects the level of interest of the community in the original post. Subsequent comments may be either supportive or unsupportive. The number of comments is displayed under each post. The content of the comments were not included in the analysis.

**Number of comments by Starbucks’ IdeaPartners (IdeaPartner Comments):** Starbucks’ employees, known within the community as IdeaPartners, occasionally interject their own comments into the discussion. These comments usually entail IdeaPartners sharing Starbucks’ plans and directions pertinent to the thread. Minimally, IdeaPartner participation signals Starbucks’ attentiveness to an emergent movement; optimally, it signals concessions garnered by the movement.
Control Variables

Richness of the message, which is expected to attract attention, was controlled using a word count. Message complexity, which may signal literacy, was controlled based on the number of 6-letter words used. As noted above, contributions appear in one of three major categories – products, experience, or involvement. Preliminary analyses noted that the product and experience dummies had similar effects on the dependent variables of interest, but differed from the effects of the involvement dummy. Consequently, in the interest of conserving power, only the involvement dummy was retained in analyses reported. As the number of comments and points associated with a posting correlates with the amount of time the posting has been available for commenting and voting, the submission date of the original post is entered into the model as a control. Finally, because Starbucks’ movement of postings as Ideas in Action conveys a legitimacy stamp to the posting, a dummy was included to account for legitimated postings.

Results

Due to space limitations, descriptive statistics and correlations are not provided, but are available upon request from the authors. Note that because the scale properties underlying each of the three dependent variables differed, it was not possible to test the hypotheses using a multivariate analysis. For each of the dependent variables, hierarchical regression was used to ascertain the incremental contribution of hypothesized effects to variance explained in the dependent variable of interest. Because of the modest sample size relative to the number of model parameters, a significance level of 0.10 was adopted.

The distribution of Points (μ=3607.33; σ=7214.16) was not normal (skewness=2.98, kurtosis=12.24). Consequently, instead of an ordinary least squares regression (OLS), a quantile regression, which estimates median rather than mean Points based on absolute residuals rather than squared residuals, was used. Results are presented in Table 1.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Controls</th>
<th>Main Effects</th>
<th>Moderated Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word count</td>
<td>2.89 (0.17)</td>
<td>4.43 (0.20)</td>
<td>4.66 (0.34)</td>
</tr>
<tr>
<td>Complexity</td>
<td>4.57 (0.80)</td>
<td>-4.49 (0.87)</td>
<td>-5.83 (0.88)</td>
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<tr>
<td>Time</td>
<td>0.01 (0.40)</td>
<td>0.01 (0.49)</td>
<td>0.01 (0.61)</td>
</tr>
<tr>
<td>Idea type</td>
<td>-383.95 (0.41)</td>
<td>-503.63 (0.54)</td>
<td>-591.47 (0.62)</td>
</tr>
<tr>
<td>Legitimated</td>
<td>1968.83 (0.00)</td>
<td>1706.45 (0.00)</td>
<td>1575.64 (0.00)</td>
</tr>
<tr>
<td>Claims</td>
<td>142.66 (0.59)</td>
<td>154.57 (0.80)</td>
<td>316.93 (0.24)</td>
</tr>
<tr>
<td>Positive Emotion</td>
<td>31.12 (0.50)</td>
<td>53.14 (0.74)</td>
<td>40.90 (0.34)</td>
</tr>
<tr>
<td>Negative Emotion</td>
<td>-128.52 (0.24)</td>
<td>-135.07 (0.39)</td>
<td>346.83 (0.24)</td>
</tr>
<tr>
<td>Rational persuasion</td>
<td>-1.59 (0.98)</td>
<td>-2.33 (0.98)</td>
<td>-32.72 (0.60)</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>3.80 (0.95)</td>
<td>4.05 (0.96)</td>
<td>21.14 (0.71)</td>
</tr>
<tr>
<td>Claims x PE</td>
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<td></td>
<td>-10.85 (0.90)</td>
</tr>
<tr>
<td>Claims x NE</td>
<td></td>
<td></td>
<td>-265.34 (0.13)</td>
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<tr>
<td>Claims x RP</td>
<td></td>
<td></td>
<td>245.15 (0.03)</td>
</tr>
<tr>
<td>Claims x Assert</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo R²(p)</td>
<td>.046</td>
<td>.052</td>
<td>.052</td>
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</table>
The quantile regression produces a pseudo $R^2$. From Table 1, we observe this pseudo-$R^2$ to increase from the controls-only model to the main effects model and from the main effects models to the moderated negative emotion and rational persuasion models. Unlike OLS, quantile regression does not permit calculation of incremental $R^2$ statistics though. However, when interaction terms are entered one at a time, a significant parameter coefficient suffices in attesting to the significance of the hypothesized interaction (Greene 2008). From Table 1, we note the parameter coefficients to be significant only for the interaction between claims and rational persuasion, providing partial initial support for hypothesis 3. None of the other hypotheses were found to be significantly implicated in the points allotted by the community.

To further investigate the significant Claims x Rational Persuasion effect noted in Table 1, an interaction plot was developed based on median splits for claims and rational persuasion. This plot, presented in Figure 2, substantiates hypothesis 3, demonstrating an elevated response to complete claims when rational persuasion was also employed.

Because Comments were count data subject to over-dispersion ($\sigma = 27.61 > \mu = 17.31$), negative binomial regressions were conducted. Results for Comments are presented in Table 2.

![Figure 2: Interaction Effect of Claims and Rational Persuasion on Points](image-url)
Table 2: Negative Binomial Regression on Comments

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Controls</th>
<th>Main Effects</th>
<th>Moderated Effects</th>
</tr>
</thead>
<tbody>
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<td>Word count</td>
<td>.00 (.65)</td>
<td>.00 (.32)</td>
<td>.00 (.30)</td>
</tr>
<tr>
<td>Complexity</td>
<td>.00 (.94)</td>
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<td>.01 (.48)</td>
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<tr>
<td>Time</td>
<td>.00 (.19)</td>
<td>.00 (.20)</td>
<td>.00 (.21)</td>
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<tr>
<td>Idea type</td>
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<td>-0.87 (.06)</td>
<td>-0.79 (.06)</td>
</tr>
<tr>
<td>Legitimated</td>
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<td>.94 (.00)</td>
<td>.97 (.00)</td>
</tr>
<tr>
<td>Claims</td>
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<td>.24 (.30)</td>
<td>.10 (.51)</td>
</tr>
<tr>
<td>Positive emotion</td>
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<td>.11 (.07)</td>
<td>.03 (.26)</td>
</tr>
<tr>
<td>Negative emotion</td>
<td>-.16 (.00)</td>
<td>-0.15 (.00)</td>
<td>.18 (.23)</td>
</tr>
<tr>
<td>Rational persuasion</td>
<td>.03 (.26)</td>
<td>.03 (.36)</td>
<td>.03 (.26)</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>-.05 (.12)</td>
<td>-.04 (.17)</td>
<td>-.05 (.11)</td>
</tr>
<tr>
<td>Claims x PE</td>
<td>-.05 (.12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Claims x NE</td>
<td></td>
<td>-.23 (.01)</td>
<td></td>
</tr>
<tr>
<td>Claims x RP</td>
<td></td>
<td>.04 (.42)</td>
<td></td>
</tr>
<tr>
<td>Claims x Assert</td>
<td></td>
<td>-.09 (.02)</td>
<td></td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>33.20 (.00)</td>
<td>46.62 (.00)</td>
<td>48.98 (.00)</td>
</tr>
<tr>
<td>χ² (p)</td>
<td>33.20 (.00)</td>
<td>46.62 (.00)</td>
<td>48.98 (.00)</td>
</tr>
</tbody>
</table>

As will be evident from Table 2, the coefficient for the interaction of Claims x Negative Emotions was found to be significant (p=.05) and negative, with the model χ² exceeding that for the main effects alone (model 2 in the Table). Likewise, the interaction of Claims x Assertiveness was significant and negative, with a model χ² in excess of that for the main effects model. In each case, we therefore observe responses to messages with complete claims to be dampened by negative emotion or assertiveness respectively. Thus, hypotheses 2 and 4 received preliminary support with regard to community-member comments.

To further investigate these effects, interaction plots for the Claims x Negative emotion and Claims x Assertiveness effects were constructed, also based on median splits of the independent variables. These plots, presented in Figure 3, substantiate the hypothesized dampening effect of negative affect and assertiveness on complete claims.

Figure 3: Interaction Effects on Comments

In addition to Starbucks' IdeaPartner Comments count data being subject to over-dispersion (σ=1.45 > μ=1.07), inspection of its frequency distribution revealed the frequency of zero-counts to be inflated (45% of the data). Consequently, a zero-inflated negative binomial regression was conducted. Inspection of residuals based on preliminary analyses further revealed the presence of five severe outliers, which,
following Andersen (Andersen 2008), were dropped from analyses. Results for Starbucks’ IdeaPartner Comments are presented in Table 3.

| Table 3: Zero-inflated Negative Binomial Regression on IdeaPartner Comments |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Independent Variable        | Controls                    | Main Effects                | Moderated Effects           |
| Word count                  | .00 (.45)                   | .00 (.46)                   | .00 (.50)                   |
| Complexity                  | .03 (.05)                   | .03 (.04)                   | .03 (.05)                   |
| Time                        | -.00 (.96)                  | .00 (.99)                   | -.00 (.99)                  |
| Idea type                   | -.54 (.36)                  | -.55 (.37)                  | -.52 (.41)                  |
| Legitimated                 | .98 (.00)                   | .99 (.00)                   | .99 (.00)                   |
| Comments                    | .01 (.03)                   | .01 (.05)                   | .01 (.04)                   |
| Points                      | -.00 (.28)                  | -.00 (.28)                  | -.00 (.24)                  |
| Claims                      | .01 (.96)                   | -.06 (.75)                  | -.02 (.88)                  |
| Positive emotion            | .00 (.91)                   | -.02 (.65)                  | .00 (.92)                   |
| Negative emotion            | -.03 (.56)                  | -.03 (.53)                  | -.10 (.52)                  |
| Rational persuasion         | -.00 (.95)                  | -.00 (.94)                  | -.00 (.98)                  |
| Assertiveness               | -.02 (.57)                  | -.01 (.81)                  | -.01 (.60)                  |
| Claims x PE                 | .01 (.68)                   |                            |                            |
| Claims x NE                 |                            |                            |                            |
| Claims x RP                 |                            |                            | .06 (.09)                   |
| Claims x Assert             |                            |                            | -.01 (.89)                  |
| \(\chi^2 (p)\)              | 22.20 (.00)                 | 22.92 (.00)                 | 21.48 (.06)                 |
|                             |                            |                            | 23.14 (.04)                 |
|                             |                            |                            | 24.17 (.03)                 |
|                             |                            |                            | 21.33 (.07)                 |

From Table 3, we note the Claims x Rational Persuasion interaction term to be positive and significant and the model \(\chi^2\) to exceed that for the main effects model. This provided preliminary support for hypothesis 3. Subsequently, interaction plots for the significant Claims x Assertiveness effect were constructed, also based on median splits of the independent variables. This plot, presented in Figure 4, substantiates the hypothesized positive interaction between claims and rational persuasion with respect to IdeaPartner Comments.

Discussion

The purpose of this study was to determine if influence tactics embedded in a message would mitigate the effects of the substance of a claim in garnering community and corporate traction. To investigate this
question, we examined the content of the message, coding for both claim substance and influence tactics. Results of our study are summarized in Table 4.

<table>
<thead>
<tr>
<th>Hypothesized Interaction with Claims</th>
<th>Points</th>
<th># of Comments</th>
<th># of Starbucks Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Positive Affect (+)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2: Negative Affect (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3: Rational Persuasion (+)</td>
<td>Supported</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Assertiveness (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As evident from Table 4, hypotheses 2, 3, and 4 garnered some support across the three dependent variables. In contrast, our findings completely failed to support hypothesis 1. Positive affect was not found to sway either community or corporate participants on the brand community in the case of either completely- or incompletely-articulated claims. Since there was, in fact, considerable variance in positive affect displayed across the messages in the sample, lack of support for this finding cannot be attributed to the absence of communicated positive affect via the brand community. It is possible though that the low social presence of the medium precluded the contagion effects anticipated with regard to positive affect. In point of fact, the research cited on affect infusion/contagion has focused largely on communication via richer media. From an ELM perspective, positive affect was expected to induce peripheral information processing. While MyStarbucksIdea does provide peripheral cues such as badges for top commenters and ideas launched and member rankings based on total points earned, these cues are yet thinly distributed through the community and were not included in our investigation.

While negative affect was found to dampen effects of claim completeness on community comments, it had no significant impact on the points allotted by the community or on comments from IdeaPartners. This finding is not inconsistent with our arguments based on the elaboration likelihood model. Specifically, we posited that negative affect would “prime” the central processing route; coupled with this priming, the communicated negative affect would evoke critical initial responses, which would staunch the fledgling movement. Given the tendency for negative affective states to be associated with more systematic information processing (Schwarz et al. 1991), community members’ responses under such circumstances are more likely to take the form of detailed verbal responses though than the exercise of a simple vote, which carries only 10 points. This explains why our findings with regard to the points variable were insignificant. Corporate representatives, likely wishing to appear neutral, are liable to react more dispassionately to emotional displays – both positive and negative.

Rational persuasion explicating the facts and causal structure underlying the claims, in the presence of complete claims, garnered positive responses in terms of points allotted by the community and comments from Starbucks’ IdeaPartners. In contrast, when claims were incompletely articulated, the interaction plots indicate that use of rational persuasion conveyed no advantage or disadvantage. We observed no significant interaction effect in the case of comments from the community though. Retrospectively, this is not entirely surprising: while complete and persuasive claims attract a positive nod from both types of constituencies – community and corporate – they leave little room for elaboration by the community. Consequently, aside from peremptory statements of support, such postings do not encourage conversation oriented toward intersubjective constructions.

The hypothesized negative effect of assertiveness was noted only in the case of comments from the community. The premise underlying this fourth hypothesis was that assertiveness would be received by the community and corporation as a competitive, rather than collaborative, message, dissuading response when the underlying claims were completely articulated and inviting contention when they were incomplete. Such contention is most likely to be conveyed verbally though rather than through a negative vote, which constrains the voter’s influence to a paltry ten points. Again, because of the company’s need to maintain a neutral stance, they are unlikely to react competitively to assertiveness.
Finally, there are some limitations to this study. First, the format of the website itself has unique qualities that must be recognized. For example, the home page presents a list of the ten most recently-submitted ideas and another list of ‘Ideas in Action’ that Starbucks has recognized as valuable. Potential respondents may focus their attention on these messages and ignore others. In particular, if an idea does not garner sufficient traction while it is on the list of the ten most-recently submitted ideas, it may never do so. Time spent on this list is not a function of the attributes of the message itself or the traction it gains, but of the rate at which subsequent ideas come in.

**Implications for Practice**

These findings suggest several ways in which corporations can be prescient in responding to postings on brand communities. Specifically, our findings suggest that postings that more completely articulate claims, when combined with rational persuasion, are liable to gain traction with the community and ultimately require the company cede to the community’s demands. In contrast, completely articulated claims, when coupled with either negative affect or high assertiveness are liable to fizzle and can more safely be ignored.

On the flip side of the coin, individuals too can benefit from this knowledge. Communicators’ ability to rehearse their message prior to transmitting it via electronic media enables them to scan for combinations of substance and influence that are likely to garner support for their cause.

**Theoretical Implications and Suggestions for Future Research**

This research makes an important contribution to the social movements literature. Specifically, it suggests that substantive claims and influence tactics may combine in hitherto unanticipated ways in determining a fledgling movement’s momentum.

Borrowing from the social movements literature, this research contributes insights to research on brand communities and computer-mediated communication about the effects of claim completeness and influence tactics. In particular, our research identifies “claims” as a construct that is new to these literatures and speaks to the likely manner in which “claims” evoke responses from others within a community.

While our research has focused on brand communities, our findings may generalize to open innovation and open source communities, as well use corporations’ social-media-based internal communities. Future research should explore the generalizability of a social movements perspective to these other types of instrumental online communities.

This study treated all negative emotional transmissions equally. As noted earlier though, individuals have been found to react differently in the presence of different emotions, i.e., anger versus sadness (Bodenhausen et al. 1994). Consequently, future research will need to adopt a more granular view of negative emotions.

Finally, the temporal aspects of the conversation threads also need to be investigated. Temporal trajectories are key to understanding the evolution and success of social movements, in general. The speed at which the conversation moves forward may impact the growth of the movement. If comments are posted at a slow pace, the issue may not attract the attention of the corporation. If the issue does attract the support of many individuals over a long period of time, the external environment may have changed to make the issue moot. If the issue gathers support at a break-neck speed only to suddenly falter, the corporation may view the issue as a flash in the pan or a fad that is no longer of concern to the community. A waning number of comments may also signal that the conversation has come to a natural end and that members have reached a consensus.

Online communities, in particular, impose certain technical constraints on the naturalness of temporal trajectories than need to be understood. Technology features such as asynchronicity and archival capabilities create possibilities for social movements within the virtual world of social media to become dis-entrained from the environment which the movement seeks to change.
References


