The Integration of Online Advertising into Social Media

The Effects of Source Expertise and Certainty Level of the Message on Consumer Involvement and Persuasion in the Context of User-Generated Advertising

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1/6/2012
Abstract

This study examined user-generated (UG) advertising in the context of social media networks. The focus was on how people, whether an expert in the area, a non-expert or a friend, influence the reader of the advertisement. Furthermore, the study analyzed how the certainty level of the UG advertisement influences the person viewing the ad.

The study showed that for the friend source a high certainty message was more persuasive. However, regarding the certainty no significant results were found for the expert and non-expert. Further, the type of the source had a considerable impact on persuasion. Someone that we personally know (e.g., a friend) was rated most positive for all analyzes variables. This shows that with the rising usage of social media there are great opportunities for new effective advertising strategies that could include a new type of an endorser – friends.

Keywords: Social media, User-generated advertising, Persuasion, Expertise, Certainty

Introduction

In recent years, the internet has changed from simple information retrieval to interactivity, interoperability and collaboration. This new form of the internet is called “Web 2.0” (Campbell et al, 2011). People are now using tools to link up with each other in various ways. For example, on sites like eBay, consumers buy products from other people instead of stores. BitTorrent helps to get music from each other without going to a music store (Li and Bernoff, 2008). On social networking sites, like Facebook, people are creating personal profiles, exchanging messages with friends or simply posting what is on their mind. Microblogging sites, like Twitter, allow people to publish their opinions and thoughts by posting 140 character long messages, called Tweets. The trend of people connecting with and depending on each other online is clearly accelerating (Li and Bernoff, 2008). Besides, the PC is not anymore the only connection tool. Today, there are devices like laptops, notebooks,
mobile phones and tablet PCs that can be connected with the internet and allow the usage of all the earlier mentioned websites.

On Web 2.0, consumers are now expressing their attitudes and opinions by writing blogs and reviews. This new form of publicity is called user-generated (UG) content. It is defined as every data or media that is contributed by individual users to a website (Stoeckl et al, 2007). Additionally, the creation of advertisements and brand-focused videos is no longer the privilege of organizations or marketing agencies. Now every consumer can express his or her feelings about a certain product. This phenomenon is called UG advertising. In other words, UG advertising is every publicly disseminated, consumer generated advertising message about a collectively recognized brand (Campbell et al, 2011). UG ads can become a threat to companies because it is not possible to control all the messages consumers post about their products and services. Companies need to understand the importance of this trend and take advantage of the emerging social technologies (Li and Bernoff, 2008).

UG content and advertising usually take place on social media platforms. Social media is defined as internet-based applications that are built on the ideological and technological foundations of web 2.0 and that allow creation and exchange of UG content (Kaplan and Haenlein, 2010). The integration of social media into business operations has become very important for the success of a company. Companies already use social networks and blogs for promoting products and services or for human resource intentions. However, in the near future, the use of social media will increase.

Furthermore, there are companies which use the willingness of consumers to create and share advertising messages on their social network profiles. These companies pay individuals for promoting products or services. People are allowed to choose a product which is more appealing to them and promote it via their preferred channel (e.g., Twitter, YouTube).
We can clearly see that UG advertising differs from traditional media, like TV and radio commercials, internet banners, billboards, etc. However, to what extent and how exactly it differs has not been researched much. The objective of this study is to examine UG advertising in the context of social networks. The main focus is on how people, whether an expert in the area, a non-expert or a friend, influence the viewer of the advertisement. Moreover, the study analyzes how the certainty level of the UG ad affects a social media user. An experiment was performed in which the source (expert, non-expert and friend) and the certainty level (high certainty, low certainty) were manipulated. The participants were shortly introduced to the source and a Twitter post and were asked to rate it on several dimensions.

The results show that for a friend a high certainty message is more effective. Yet, the certainty had no significant impact on the expert and non-expert sources. The analysis also showed that the friend source was rated most positive for all analyzed variables.

In general, this study contributes to better understanding of UG advertisements and their persuasiveness. It provides insights into consumers’ reactions to different advertisement sources and the impact of the message’s certainty level.

**Literature review**

**UG advertisement credibility and trustworthiness**

Even though UG advertising falls outside of the traditional definitions of word-of-mouth (WOM), it can be seen as a form of WOM (Campbell et al, 2011). WOM is defined as an oral communication about issues and experiences related to consumption (Ong, 1982; Stern, 1994). Both have in common that these are verbal acts of real people; they are personally motivated, spontaneous and informal in structure. However, UG advertising differs from WOM because it does not occur orally and face-to-face and therefore it can raise doubts about the authenticity of the message. Yet, the main difference is that UG ads are a one-to-
many conversation, while WOM is usually taking place just between two people (Campbell et al, 2011). Studies have shown that WOM is more persuasive than traditional media (Trusov et al, 2009). Thus, due to the prior stated similarities, these results should be applicable to UG advertising. Johnson and Kaye (2004) found that UG ads are also perceived more credible than traditional media. The perceived credibility for UG brand-related messages is high because users are independent from corporate interests (Chu and Kamal, 2008; Hope, 2002).

**Attitude certainty**

Previous research has defined the feeling of confidence about an opinion or evaluation as attitude certainty (Abelson, 1988; Gross et al, 1995; Petrocelli et al, 2007; Karmarkar and Tormala, 2010). This study will focus on understanding the impact of attitude certainty on an interpersonal level. This aspect is important because people often form and express their opinions in a social context (Tormala et al, 2009; Karmarkar and Tormala, 2010). Moreover, with the rising usage and popularity of social media, the access to the opinions and recommendations of others has increased (Karmarkar and Tormala, 2010). Besides, expressions of certainty or uncertainty about a specific matter form a natural way to shape one’s persuasiveness (Karmarkar and Tormala, 2010). Therefore, this study will explore how the certainty level of recommendations or attitudes impacts the persuasiveness of the individual receiving this message.

**Source certainty**

Several previous studies have analyzed the impact of source certainty on persuasion. The results show that source certainty increases the perceived credibility and credibility again raises source persuasion (Petty and Wegener, 1998; Pornpitakpan, 2004). Thus, high certainty should be more persuasive as low certainty. For example, financial advisors who express high confidence about their stock forecasts were perceived as more expert and more often chosen
than advisors with moderate or low certainty in their predictions (Price and Stone, 2004). Furthermore, the confidence of a witness’s testimony is seen as a reliable proof for his or her perceived credibility (Whitley and Greenberg 1986; Tenney et al, 2007).

However, these studies have been focusing on situations with just one correct outcome, but in the case of goods and services the best decision is often subjective. Therefore, even if in objective situations certainty is positively correlated with accuracy (Lindsay et al, 1998; Sniezek and Von Swol, 2001), this is not true in subjective situations where the evaluation is based on personal opinions and attitudes (Karmarkar and Tormala, 2010).

**Source Expertise**

Prior knowledge about the source of the message can alter expectancies about the quality and content of the message and therefore have an impact on the credibility and persuasiveness (Wood and Eagly, 1981). In several studies, different source characteristics have been manipulated. Ziegler, Diehl and Ruther (2002) changed the likeability and expertise of the source; Karmarkar and Tormala (2009) altered the certainty level of the message and the expertise. Karmarkar and Tormala propose that source certainty has different consequences depending on the perceived expertise level of the source. For expert sources, low certainty is considered more persuasive as high certainty; for non-expert sources it is the opposite. The logic is that people tend to become more involved with a message or an object when they perceive incongruity between the persuasion variables (Wood and Eagly, 1981; Petty and Cacioppo, 1986; Chaiken et al, 1989; Maheswaran and Chaiken, 1991; Baker and Petty, 1994; Smith and Petty, 1996; Tormala and DeSensi, 2008). Hence, incongruity violates expectations and feels surprising. This increases involvement and cognitive elaboration with the message and therefore can result in higher persuasion (Newman and Dolich, 1979; Petty and Cacioppo, 1979, 1986; Petty et al, 1981; Petty et al, 1983; Miniard et al, 1991).
Friend source

Expertise level of close friends

Friends and people in close relationships can become content about the knowledge of the other person. For that reason, people tend to pay less attention to judgmental accuracy and believe what he or she says without elaborating on it (Thomas et al, 1997). Furthermore, people tend to idealize and aggrandize close friends and their abilities (Murray and Holmes, 1993). As a result, individuals perceive their friends as knowledgeable and can overestimate their actual knowledge level (Kunda, 1990; Martz et al, 1998).

Certainty level of close friends

In the case of the expert and non-expert sources, incongruity (i.e., high expertise/low certainty, low expertise/high certainty) leads to higher elaboration and greater persuasion (Karmarkar and Tormala, 2009). However, for a friend, it is expected that high certainty would be more persuasive. Several studies have come to the result that high certainty has a positive effect on persuasion (Petty and Wegener, 1998; Pornpitakpan, 2004). It does not even matter whether the cognitive elaboration level is high (Chaiken and Maheswaran, 1994; Tormala and Clarkson, 2007) or low (Petty et al, 1981). Yet, these theories have been substituted with the incongruity theory because they work only for situations with an objective outcome (Lindsay et al, 1998; Sniezek and Von Swol, 2001), not in subjective situations like attitudes (Karmarkar and Tormala, 2009). However, close friends are expected to know each other’s beliefs and preferences best (Kenny and Acitelli, 2001; Gershoff and Johar 2006). It is commonly believed that attitude similarity is the base of friendships (Werner and Parmelee, 1979). Consequently, people tend to perceive themselves similar to their friends (Secord and Backman, 1964) and the subjective opinion of a friend will be considered as in line with the individual’s own attitudes. Thus, for friend sources, high certainty should be more persuasive.
Hypotheses

The source of the posted message plays an important role in the persuasion process (Berlo, Lemert and Mertz 1969). By using a similar approach like Karmakar and Tormala (2010), the current research is going to explore the effects of expertise on involvement and persuasion. Yet, this study is going to focus on social media and UG ads and therefore will look at 3 different sources – an expert, a non-expert and someone we personally know, a friend. Due to the rising usage of social media, friends have become powerful influencers.

This research hypothesizes that the certainty level of a message, either high or low, will have a different level of expectancy violation for different expertise sources. Incongruity between expertise and certainty is expected to be more surprising and therefore people would be more involved with the message. For the expert source, low certainty is likely to be more surprising than high certainty because people expect experts to be knowledgeable and certain about their opinions. Then again, non-experts are not supposed to express high certainty as their knowledge level about the specific issue is not significantly high. However, for the friend source greater expectancy violation is more likely from the high certainty message because people do not expect their friends’ high engagement in promoting products.

H1: The incongruity between source expertise and the level of certainty violates expectations and therefore is more surprising and unexpected.

H1.1: For an expert source, low certainty will be more surprising and unexpected than high certainty.

H1.2: For a non-expert source, high certainty will be more surprising and unexpected than low certainty.

H1.3: For a friend source, high certainty will be more surprising and unexpected than low certainty.
If expectations are violated, the involvement with the message is greater and high levels of persuasion can be achieved (Wood and Eagly, 1981; Petty and Cacioppo, 1986; Chaiken et al, 1989; Maheswaran and Chaiken, 1991; Baker and Petty, 1994; Smith and Petty, 1996; Tormala and DeSensi, 2008;). Furthermore, people want to know the attitudes of their friends in order to sustain their friendship bonds. Friendships are central to one’s identity (Kenny and Acitelli, 2001). Therefore individuals will elaborate more on the message.

**H2**: The violation of expectations in a message increases involvement and persuasion.

**H2.1**: For an expert source, a low certainty message will be more involving and persuasive than if the source would express high certainty.

**H2.2**: For a non-expert source, a high certainty message will be more involving and persuasive than if the source would express low certainty.

**H2.3**: For a friend source, a high certainty message will be more involving and persuasive than if the source would express low certainty.

As this study is conducted in the context of UG advertising, it is important to understand whether there is a significant impact of the perception that the posted message is a paid ad and not a genuine opinion. One of the reasons why traditional media is perceived as less credible and persuasive as WOM (Trusov et al, 2009), is the knowledge that advertisements are paid by companies whose objectives are gaining profit. Thus, we assume that the awareness of the UG message being a paid ad would decrease the persuasion.

**H3**: For all sources, the perception that the posted message is a paid advertisement will decrease the persuasion level.

**Methodology**

In order to test the hypotheses, participants were introduced to a persuasive message – a Twitter post about a book – from a source varying in expertise and certainty. The
The experiment starts by testing the incongruity hypothesis which states that messages from experts would feel more surprising and unexpected when they expressed uncertainty, whereas messages from non-experts and friends would feel more surprising and unexpected when they expressed certainty. The research analyzes the effects of source expertise and source certainty on participants’ self-reported expectancy violations.

The next part of the experiment consists of the involvement and persuasion analysis. The study will explore whether the measurements are in line with the second hypothesis which states that higher expectancy violation will result in higher involvement with the message and greater persuasion power.

Further, the research study explores source likability (Wood and Kallgren, 1988), perceived source similarity (Mackie et al., 1990) and perceived source trustworthiness (Priester and Petty, 1995, 2003), all of which have showed to influence persuasion in past studies. The analysis of these variables would lead to deeper understanding of the persuasion.

Finally, the study tests the third hypothesis and explores whether the participants perceived that the Twitter post was a paid advertisement or the source’s genuine opinion. It is expected that the perception of it being a paid message, would decrease the persuasion power.

**Participants and design**

The experiment was performed on Mechanical Turk ("MTurk"). MTurk is a marketplace provided by Amazon.com that allows companies and individuals to pose simple tasks, like surveys and rating websites, to other individuals. MTurk provides researchers with an efficient and cost-effective platform for finding participants and collecting responses.

168 participants started the survey, but just 105 were able to pass the pre-screening questions (whether they do have a Twitter account; whether they have used it in the last 2 weeks; whether they have read a book for their own enjoyment in the last 6 months).
Furthermore, 9 participants were excluded out of the sample because they did not pass an attention check question. It was included to ensure that the participants were elaborating on the questions. The attention check question consisted of a slightly long text and 12 possible answers (refer to Appendix 1). The participants had to choose the last answer and write next to it “I read the conditions”. The experiment was composed of a 3 (source expertise: expert, non-expert or a friend) x 2 (source certainty: high or low) between-subjects design.

The sample consisted of 96 participants (45 male; 51 female) from the USA. The average age was 30 years and half of them had at least a bachelor degree. 60% of the participants were employed; 20% were studying. Around 84% of participants used Twitter every week. 52% used it every day. The main reason for the usage was the desire to socialize and keep in touch with friends and family. The second most mentioned reason was the possibility to follow celebrities. A few participants also used it to for promotional motives.

Procedure

After opening the link to the online survey, participants were shortly introduced to the survey. Next, the participants had to pass 3 pre-screening questions to be allowed to continue.

The next step of the survey consisted of the introduction of the source and a 140 character long Twitter post about a fictional book of Tom O’Connell “The Green Street” (refer to Appendix 2). It consisted of their opinion and rating of the book and a link which theoretically would direct them to the homepage of the author. Across all conditions the review was favorable to “The Green Street.”

When participants finished reading the post, they were asked to rate the source, the Tweet and the book on several dimensions. Next, they were asked whether they thought the tweet was personally motivated or a paid advertisement and they were introduced to the concept of user-generated advertisement. The participants were questioned about their attitude
towards user-generated ads and their personal usage of social media. At the end, the demographics of the participants were captured and they were thanked for the participation.

**Independent Variables**

*Source Expertise.* The participants were randomly assigned to the three different sources (refer to Appendix 2). In the case of the expert and the non-expert conditions, the participants were asked to view a Twitter account screenshot with a profile picture and a 160 characters long profile description. In the “friend” condition, participants were asked to name a friend who is also an active Twitter user and who they meet face-to-face at least once a month. The name of the mentioned friend was further inserted in all survey questions to make it easier for the participants to imagine that the Tweet is from their friend.

The expert source was introduced as Jack Anderson, a literature professor at Harvard University, who has published several articles and written 3 books about modern literature. Furthermore, it was mentioned that he is also writing book reviews for the New York Times. The Twitter profile screenshot showed also a picture of a smiling man in his fifties in front of a book shelve.

The non-expert source was called again Jack Anderson. He was described as a rising star in the film industry who had his breakthrough 3 years ago with a romantic comedy “Hello, Jane!” Since then he supposedly had participated in 2 more highly successful films. The profile picture showed a handsome young man in his twenties or thirties.

*Source Certainty.* After the introduction of the source, the participants were randomly assigned to a low or high certainty condition. For all three source expertise conditions, the messages were identical. The high certainty Tweet was: “Just finished reading Tom O’Connell’s “The Green Street”. Best book I’ve read in years! Brilliant plot! A clear 5 out of 5. l.x.im/Green”. In the low certainty condition, the author was still very positive in his
review, but was less enthusiastic and certain: “Just finished reading Tom O’Connell’s “The Green Street”. It was rly quite good. Interesting plot. Maybe even a 5 out of 5. lx.im/Green” (refer to Appendix 3).

**Dependent variables**

Expectancy violation. The most important measures to test the incongruity hypothesis are the unexpectedness and the level of surprise which occur due to the mismatching of the source expertise level and source certainty (high expertise/low certainty or low expertise/high certainty). To measure these variables, the participants were asked to rate on a semantic differential scale from one (not at all) to seven (very much) how surprising, unexpected and exciting the Tweet was to them (Karmakar and Tormala, 2010). As the responses to these 3 questions were consistent ($\alpha=0.770$), they were averaged and a composite index for the expectancy violation was created.

Involvement. To measure the involvement with the Tweet, the participants were asked: “How interested were you in the tweet?” and “How involved did you feel with the tweet?”. The responses were again measured on a one (not at all interested, not at all involved) to seven scale (very interested, very involved) and as they were highly consistent ($r=0.802$, $p<0.000$) they were averaged to form a composite index.

Intentions (persuasion). The persuasion was measured with three questions. First, the participants were asked to rate what would be the likelihood that they would click on the link included in the end of the tweet. This is a highly relevant issue as most persuasion in the internet advertising model is measured by how often consumers click on a certain link. Furthermore, the most commonly used payment method is cost per click – the amount you earn each time a user clicks on your ad (Google AdWords, 2011). Second, participants were asked to indicate how interested they would be in reading the book. Thirdly, they were asked
how interested they would be in buying the book. The answers were measured on a one to seven scale from “not interested at all” to “very interested.” Responses to all three questions were averaged to form a composite index for intentions ($\alpha=0.849$).

**Source impressions.** The next measurements were the impressions of the Tweeter (i.e., the source) on a variety of dimension. This should help to understand the effects of source expertise and certainty on persuasion.

The perceived trustworthiness of the Tweeter was measured by asking the participants how honest and trustworthy they thought the Tweeter was. The answers were measured on a one (not at all honest, not at all trustworthy) to seven (very honest, very trustworthy) scale and averaged to form a composite index for the trustworthiness ($r=0.823$, $p<0.000$).

Further, the perceived source likability was assessed: “How much do you think you would like Jack Anderson/Friend’s name as a person?” and “How favorable or unfavorable is your opinion about Jack Anderson/Friend’s name?”. Responses, given on semantic differential scales ranging from one (not at all, unfavorable) to seven (very much, favorable), were highly correlated ($r=0.854$, $p<0.000$) and were averaged to form a composite index.

At last, source similarity was measured. Participants were asked to rate on a one (not at all similar, nothing in common) to seven (very similar a lot in common) scale how similar they believed to be to the Tweeter and how much they felt they had in common with him or her. The answers were significantly correlated ($r=0.901$, $p<0.000$) and therefore averaged to form a composite index for similarity.

**Manipulation check.** Finally, the participants were asked to rate the author of the Tweet on the manipulated source attributes – expertise and certainty. First, participants rated the expertise on two items: “How knowledgeable do you think is Jack Anderson/Friend’s name about books and literature in general?” and “How much of an expert do you think Jack
Anderson/Friend’s name is about books and literature?”. The responses were measured on a one (not at all knowledgeable, not at all expert) to seven (very knowledgeable, very expert) scale and were averaged to form a composite index for perceived source expertise (r=0.855, p<0.000). Second, participants were asked to rate the perceived source certainty on one single item. They had to indicate on a scale from one to seven how certain the Tweeter appeared to them (not at all certain, very certain).

Other measures. After assessing the earlier discussed dimensions, the participants were asked about their perception of the Tweet as a paid advertisement or a genuine opinion. Further, the participants were introduced to the user UG advertising concept and were questioned about their willingness of posting UG ads themselves. The participants were also asked about their general usage of social media. At the end of the survey, participants were asked a series of demographic questions.

Results

The analysis was done by conducting 3 x 2 ANOVAs with source expertise and certainty as the independent variables. All the means are represented in Appendix 4.

Expectancy violation

The first hypothesis which states that higher expectancy violation will result in greater surprise and unexpectedness was not supported. The analysis did not show a significant interaction between the independent variables – source expertise and certainty (F<1), nor a main effect from the certainty manipulation (F<1). For all sources, the low or high certainty messages were similarly surprising and unexpected. However, the manipulation of the expertise had a main effect on expectancy violation (F(2,93)=6.647, p<0.002). The message of a friend was the most unexpected (M=4.43); the non-expert and expert were rated similar (M_{non-expert}=3.48 vs. M_{expert}=3.30; F(2,62)=0.269, p>0.606).
**Involvement**

The second hypothesis states that higher expectancy violation results in increased involvement with the message. However, there was no interaction between source expertise and source certainty nor a main effect from certainty and expertise manipulations (F’s<1). Yet, the involvement with friend’s high certainty message was higher than the involvement with the low certainty message (M\textsubscript{certain}=5.47 vs. M\textsubscript{uncertain}=4.66; F(1,30)=2.902, p<0.099). This result is marginally significant and supports the hypothesis. Nevertheless, for the expert (M\textsubscript{certain}=4.67 vs. M\textsubscript{uncertain}=4.35; F(1,27)=0.309, p<0.583) and non-expert source no significant difference was observed (M\textsubscript{certain}=4.35 vs. M\textsubscript{uncertain}=4.43; F(1,33)=0.017, p<0.896). Thus, the friend condition was the only one supporting the hypothesis. The expertise manipulation, although without a main effect, showed again that the highest involvement was with the friend’s message (M\textsubscript{friend}=5.06 vs. M\textsubscript{expert}=4.48, F(2,62)=2.491, p>0.120; M\textsubscript{friend}=5.06 vs. M\textsubscript{non-expert}, F(2,62)=2.887, p>0.094). The expert and the non-expert were rated similar (M\textsubscript{expert}=4.48 vs. M\textsubscript{non-expert}=4.39; F(2,62)=0.053, p>0.818).

**Intentions (persuasion)**

The second hypothesis states also that higher expectancy violation would increases persuasion. Although the interaction between expertise and certainty was not significant (F<1), the manipulation of certainty (F(1,94)=3.363, p<0.070) and expertise (F(2,93)=4.319, p<0.016) had a main effect on persuasion. The certainty manipulation showed that for all sources the high certainty message is more persuasive. This would support the hypothesis statements for the non-expert (M\textsubscript{certain}=4.75, M\textsubscript{uncertain}=4.36; F(1,33)=0.709, p<0.406) and the friend (M\textsubscript{certain}=5.73, M\textsubscript{uncertain}=5.17; F(1,30)=2.644, p<0.114). Yet, it is in contradiction with the proposition that for an expert source (M\textsubscript{certain}=4.94, M\textsubscript{uncertain}=4.39; F(1,27)=0.852, p<0.364) a low certainty message would be perceived as more effective (see Figure 1).
However, the certainty manipulation is statistically significant and supports the hypothesis just in the case of the friend condition. The expertise manipulation showed that, similar like in the case of the expectancy violations and involvement, the message from the friend source (M=5.45) was the most persuasive; the expert’s and the non-expert’s messages were rated again similar (M_{expert}=4.62, M_{non-expert}=4.58; F(2,62)=0.012, p>0.914).

The analysis of all source impression showed that the interaction between expertise and certainty was not significant (F’s<1), nor was the certainty manipulation (F’s<1). Yet, the expertise manipulation was having a main effect. For all impressions the friend source was always rated most positive, the expert second and the non-expert third.

The analysis of the manipulation check data showed that the expertise manipulation (F(2,93)=22.741, p<0.000) had a significant impact on the perceived expertise. However, the certainty manipulation did not result in significant results for the perceived certainty (F(1,94)=1.234, p>0.270). This might explain that there was no main effect from the certainty manipulation on expectancy violation and involvement. However, the experimental design was based directly on a prior study of Karmarkar and Tormala (2009). Although, their results showed a main effect from the certainty manipulation on the perceived certainty, there were also no significant effects of the certainty manipulation on expectancy violation and...
involvement. Furthermore, the issue about the perceived certainty might be caused by the fact that Tweets are limited in their length to 140 characters. The restrictions of the length might make it harder to express distinct high or low certainty.

**Perception of the message being a paid ad or a genuine opinion**

Exactly two-thirds of the participants viewed the message as a genuine opinion and only one third perceived it as a paid advertisement. The third hypothesis states, that for all sources, the perception of the posted message being a paid ad will decrease the persuasion. However, the average persuasion level for the people who perceived it as a genuine or paid opinion was not significantly different ($M_{\text{genuine}}=4.91$, $M_{\text{paid}}=4.83$; F(1,94)=0.059, p>0.808) and was almost the same as for the whole sample (M=4.88). For all three sources separately the analysis also did not show significant results. Thus, the hypothesis should be rejected.

**Discussion and Conclusions**

This research study looked at the impact of the manipulation of source expertise and message certainty in the context of user-generated (UG) advertising. The study examines whether the incongruity between the message’s certainty level (high or low) and source’s expertise (expert, non-expert or friend) increases the involvement with the message and purchase intentions. Table 1 shows a summary of all hypotheses and whether they were supported by the results or not.

The first hypothesis which stated that the incongruity between source expertise and the level of certainty would violate expectations was rejected. There was no significant impact from the manipulations of the certainty of the message, nor an interaction between source expertise and certainty. Thus, low and high certainty messages were similarly surprising and unexpected for all three sources. This is also supported by the results of the manipulation check analysis. It showed that the participants’ perceived certainty level of the message did
not differ for high and low certainty UG advertisements. Participants were rating Twitter posts which are restricted in length to just 140 characters. The limitations of the length might make it harder to express distinct high or low certainty.

<table>
<thead>
<tr>
<th>Hypothesis</th>
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<tr>
<td>H1: The incongruity between source expertise and the level of certainty violates expectations and therefore is more surprising and unexpected.</td>
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<tr>
<td>H1.1: Expert: low certainty more surprising and unexpected</td>
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<td>H1.2: Non-expert: high certainty more surprising and unexpected</td>
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<td>H1.3: Friend: high certainty more surprising and unexpected</td>
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<td>H2: The violation of expectations in a message increases involvement and persuasion.</td>
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<td>H2.1: Expert: low certainty more involving</td>
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<tr>
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</table>

Table 1 Summary of the hypothesis

The second hypothesis is based on the first one and states that the violation of expectations increases the involvement and the persuasion. Although the first hypothesis was rejected, the analysis was continued and the effects of expertise and certainty manipulation on involvement and persuasion were computed. The results for the expert and non-expert conditions were not significant and did not support the hypothesis. Both sources did not react differently to the high and low certainty messages, meaning both messages were similarly involving and persuasive. However, the certainty manipulation had an effect on the friend source. The high certainty message was more involving and persuasive as the low certainty message. This finding was in line with the second hypothesis. This result shows that if individuals want to be more persuasive, while advertising something to their friends, they should express high certainty. Moreover, the persuasion analysis showed that all sources were rated relatively high. This demonstrates that UG ads are persuasive and perceived as credible.
The perception of the post being a paid advertisement or a genuine opinion did not have any significant impact on the persuasion. Participants rated the UG ad equally persuasive whether they perceived it as a paid message or an honest attitude. Thus, the third hypothesis was rejected. Advertisers should not recoil from the fact that consumers would perceive a UG ad as a paid one but should be more concerned about the choice of the source.

For all variables, except the involvement, the source expertise manipulation had a main effect. The friend source was always rated highest. The expert and non-expert sources got lower but similar ratings. This shows that with the rising usage of social media there are great opportunities for new effective advertising strategies that could include a new type of an endorser – friends.

Managerial implications

For marketers, the results of the study offer the knowledge that high certainty messages would be more persuasive than low certainty messages. This would be of importance for entrepreneurs and sales people if they want to promote products or services on their social network profiles. Furthermore, there are companies which offer individuals the possibility to promote specific products and gain a monetary compensation for it. The payment system usually is based on cost-per-clicks. Therefore, the possibility to increase the persuasion of the message would result in higher profits for the individuals.

Nowadays with the rising usage of social media people have easy access to spread their opinions and attitudes about products and services. This study showed that the persuasion power of these messages is very high. Therefore, companies and advertising agencies should take in consideration the increasing power of consumers. UG advertisement can become a threat to companies, because it is not possible to control all the messages consumers post and publish about their products and services. Companies need to understand
the importance of this trend and take advantage of the emerging social technologies. Specifically, this study shows that there are great opportunities for new effective advertising strategies that could include a new type of an endorser – friends.

**Limitations and future research**

This study is focusing on the perceptions of a fictional book. The internet has blurred the lines between search and experience goods by allowing consumers to read about the experiences of others, and to compare and share information (Klein 1998; Weathers et al. 2007, Mudambi and Schuff 2010). Nevertheless, further studies should analyze whether the choice of the product would change the results.

Next, the study is using a fictional expert and celebrity source. This led to clearer results because the participants were not biased towards the source. However, UG ads are generated by real people. Therefore, future research should analyze how the consumers’ previous perception of the source changes the credibility and persuasion for high and low certainty UG ads.

Furthermore, social media allows publishing continuous messages. The advertiser can post messages about the same product or service more than once. There are a lot of possible research directions, e.g., the optimal frequency of the UG ads, the best division of the advertising information into several UG ads. Besides, social media can create a dialog between the author of the message and the reader. In this area, there has been very little research done. However, it is a very important aspect and should be further studied.

At last this study only researched the users of the social network Twitter. Future studies could research the impact of UG ads in other social networks. For example, Facebook, which is still mainly used to connect with friends, would offer a research platform to analyze more deeply the friend source’s impact on persuasion.
References


Appendices

Appendix 1: Attention check question

Most modern theories of decision making recognize the fact that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables can greatly impact the decision process. In order to facilitate our research on decision making we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you actually take the time to read the directions; if not, then some of our investigations that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the preferences form below, and simply type "I read the instructions" under Other Activities:

- Watching Athletics (1)
- Participating in Athletics (2)
- Reading (3)
- Watching Movies (4)
- Cooking (5)
- Electronic Games (6)
- Board or Card Games (7)
- Attending Cultural Events (8)
- Religious Activities (9)
- Travel (10)
- Outdoor Activities (Hiking, Camping, etc.) (11)
- Other Activities (12) ____________________

Appendix 2: Twitter profile screenshots for the expert and non-expert

![Twitter profile screenshot of Harvard professor Jack Anderson](image)

Figure 2 Twitter profile screenshot of Harvard professor Jack Anderson
Appendix 3: Low and high certainty messages for the expert, non-expert and friend

Figure 4 Screenshot of Harvard professor’s low certainty Tweet

Figure 5 Screenshot of Harvard professor’s high certainty Tweet
Figure 6 Screenshot of Hollywood actor’s low certainty Tweet

Figure 7 Screenshot of Hollywood actor’s high certainty Tweet

Figure 8 Screenshot of the Friend source’s low certainty Tweet

Figure 9 Screenshot of the Friend source’s high certainty Tweet
Appendix 4: Means of variables

<table>
<thead>
<tr>
<th>Expertise</th>
<th>Non-expert</th>
<th>Expert</th>
<th>Friend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Certainty</td>
<td>4,167</td>
<td>3.7</td>
<td>6,235</td>
</tr>
<tr>
<td>Perceived expertise</td>
<td>5,941</td>
<td>5.917</td>
<td>6,063</td>
</tr>
<tr>
<td>Perceived certainty</td>
<td>5,382</td>
<td>5.292</td>
<td>6,156</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>4,933</td>
<td>5</td>
<td>6,059</td>
</tr>
<tr>
<td>Likability</td>
<td>4,967</td>
<td>4.525</td>
<td>5,325</td>
</tr>
<tr>
<td>Similarity</td>
<td>3,767</td>
<td>3.15</td>
<td>3,853</td>
</tr>
<tr>
<td>Expectancy violation</td>
<td>3,311</td>
<td>3.6</td>
<td>3,373</td>
</tr>
<tr>
<td>Attitude towards the book</td>
<td>5,1</td>
<td>5.325</td>
<td>5,309</td>
</tr>
<tr>
<td>Involvement</td>
<td>4,433</td>
<td>4.35</td>
<td>4,353</td>
</tr>
<tr>
<td>Persuasion</td>
<td>4,356</td>
<td>4.75</td>
<td>4,392</td>
</tr>
</tbody>
</table>

Table 2 Means for all variables

Appendix 5: The full questionnaire presented to the participants

Participants were randomly assigned to one of the 3 source expertise conditions. After the introduction to the source, the participants were also randomly split and received either a low or high certainty message.

**Introduction and pre-screening questions**

SOCIAL MEDIA PERCEPTIONS STUDY

This study is about different perceptions in the context of social media. On the following screens, you will be asked a few questions to determine whether you are an appropriate participant for this study.

Pre-screening:

Do you have an active Twitter account?
- Yes (1)
- No (2)

Have you used your Twitter account in the last 2 weeks?
- Yes (1)
- No (2)

In the last year, have you read book for your own enjoyment (not for school/university/work etc.)?
- Yes (1)
- No (2)
Source expertise conditions

Non-expert:
Twitter profile screenshot of Hollywood actor Jack Anderson

Please read the below description of Hollywood actor, Jack Anderson, on his personal Twitter account. Please pay attention to it carefully.

Non-expert / low certainty condition

Please carefully read the last Tweet that Jack Anderson posted on his profile:

Non-expert / high certainty condition

Please carefully read the last Tweet that Jack Anderson posted on his profile:
Expert:
Twitter profile screenshot of Harvard professor Jack Anderson

Please read the below description of Harvard professor, Jack Anderson, on his personal Twitter account. Please pay attention to it carefully.

Expert / low certainty condition

Please carefully read the last Tweet that Jack Anderson has posted on his profile.

Expert / high certainty condition

Please carefully read the last Tweet that Jack Anderson has posted on his profile.
**Friend:**
Please think about your friends who are active Twitter users and who you also meet face to face at least once a month. Below, please enter the name of one of them: ____________

**Friend / low certainty condition**

Now imagine that „Friend’s name” posted the following message on Twitter.

![Twitter screenshot of a tweet about Tom O'Connell's book, "The Green Street".]

**Friend / high certainty condition**

Now imagine that „Friend’s name” posted the following message on Twitter.

![Twitter screenshot of a tweet about Tom O'Connell's book, "The Green Street".]

**Attitude towards the book**

After viewing the Tweet, we would like to ask you to take some time to answer the following questions about Tom O'Connell's book, "The Green Street".

Please answer the following questions by giving one of the seven possible ratings.
### How was your first impression of "The Green Street"? (1)

<table>
<thead>
<tr>
<th>negative (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>positive (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How good do you think is "The Green Street"? (1)

<table>
<thead>
<tr>
<th>bad (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>good (7)</th>
</tr>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### How favorable is your attitude towards Tom O'Connell's book, "The Green Street"? (1)

<table>
<thead>
<tr>
<th>unfavorable (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>favorable (7)</th>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How much do you think you would like the book of Tom O'Connell "The Green Street"? (1)

<table>
<thead>
<tr>
<th>not at all (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much (7)</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>

#### Intentions (persuasion)

After viewing the Tweet, we would like to ask you to take some time to answer the following questions about Tom O'Connell's book, "The Green Street".

Please answer the following questions by giving one of the seven possible ratings.

### What is the likelihood that you would click on the link included at end of the Tweet? (1)

<table>
<thead>
<tr>
<th>not likely at all (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very likely (7)</th>
</tr>
</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How interested would you be in reading "The Green Street"? (1)

<table>
<thead>
<tr>
<th>not at all interested (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very interested (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How interested would you be in purchasing "The Green Street"? (2)

<table>
<thead>
<tr>
<th>not at all</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Involvement

Now please answer a few questions about the Tweet itself.

Please answer the following questions by giving one of the seven possible ratings (from "not at all" to "very much").

### How interested were you in the tweet? (1)

<table>
<thead>
<tr>
<th>not at all</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How involved did you feel with the tweet? (2)

<table>
<thead>
<tr>
<th>not at all</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How appealing was the tweet to you? (3)

<table>
<thead>
<tr>
<th>not at all</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Expectancy violation**

Now please answer a few questions about the Tweet itself.
Please answer the following questions by giving one of the seven possible ratings (from "not at all" to "very much").

<table>
<thead>
<tr>
<th></th>
<th>not at all (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very much (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How exciting was the tweet to you? (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>How surprising was the tweet? (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>How unexpected was the tweet? (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Manipulation check: expertise**

On the following pages, you will be asked to answer some questions about the tweeter Jack Anderson / „Friend’s name”
Please answer the following questions by giving one of the seven possible ratings.

<table>
<thead>
<tr>
<th></th>
<th>not at all knowledgeable (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very knowledgeable (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How knowledgeable do think is Jack Anderson/„Friend’s name” about books and literature in general? (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>not at all expert (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very expert (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much of an expert do you think Jack Anderson/„Friend’s name” is about books and literature? (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Manipulation check: certainty**

On the following pages, you will be asked to answer some questions about the tweeter Jack Anderson / „Friend’s name”
Please answer the following questions by giving one of the seven possible ratings.

<table>
<thead>
<tr>
<th></th>
<th>not at all certain (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very certain (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How certain do you think Jack Anderson/„Friend’s name” is about his statement in the tweet? (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**Trustworthiness**

On the following pages, you will be asked to answer some questions about the tweeter Jack Anderson / „Friend’s name”
Please answer the following questions by giving one of the seven possible ratings.

<table>
<thead>
<tr>
<th></th>
<th>not at all honest (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>very honest (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How honest does Jack Anderson/„Friend’s name” seem to you in his tweet? (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>How trustworthy does Jack Anderson/&quot;Friend’s name” seem to you? (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Trustworthy (1)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Likability**

On the following pages, you will be asked to answer some questions about the tweeter Jack Anderson / „Friend’s name”

Please answer the following questions by giving one of the seven possible ratings.

<table>
<thead>
<tr>
<th>How much do you think you would like Jack Anderson/„Friend’s name” as a person? (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Favorable (1)</td>
</tr>
</tbody>
</table>

**Similarity**

On the following pages, you will be asked to answer some questions about the tweeter Jack Anderson / „Friend’s name”

Please answer the following questions by giving one of the seven possible ratings.

<table>
<thead>
<tr>
<th>How similar do you think you are to Jack Anderson/„Friend’s name”? (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Similar (1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How much do you think you have in common with Jack Anderson/„Friend’s name”? (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>Nothing in common (1)</td>
</tr>
</tbody>
</table>

**Participants knowledge about UG advertisement**

Now as you think back about the Tweet, do you think that was a personally motivated opinion or a paid advertisement?

- Paid advertisement (1)
- Personally motivated (2)

The Tweet was a paid advertisement. This kind of advertising where people post information about a brand or product on social media networks is called user-generated advertisement.

Did you know there are companies which pay celebrity and non-celebrities to promote products through their own social network profiles?

- Yes (1)
- No (2)

Did you know that the individuals can choose themselves which products seem more attractive to them and advertise just the products that are appealing to them?

- Yes (1)
Have you noticed user-generated advertisement while using your Twitter account?
- Yes (1)
- No (2)

Would you consider posting this kind of paid advertisements on your own Twitter profile page?
- Yes (1)
- No (2)

Please tell us the main reasons why you would consider doing it:

Please tell us the main reasons why you would not consider doing it:

**General usage of Social Media**

How often do you use Twitter?
- Every day (1)
- Every week (2)
- Every 2 weeks (3)
- Every month (4)
- Less than every month (5)

How much time do you spend on Twitter per week?
- up to 30 minutes (1)
- up to 1 hour (2)
- up to 4 hours (3)
- up to 7 hours (4)
- more than 7 hours (5)

Approximately, how many people do you follow on Twitter?
- 0-10 (1)
- 11-30 (2)
- 31-50 (3)
- 51-100 (4)
- 101-200 (5)
- more than 200 (6)

Approximately, how many followers do you have on Twitter?
- 0-10 (1)
- 11-30 (2)
- 31-50 (3)
- 51-100 (4)
- 101-200 (5)
- more than 200 (6)

What are your main reasons for using Twitter:

What other social networks do you use? (multiple answers possible)
- Image:Facebook image (1)
- Image:Linkedin image (2)
- Image:Myspace image (3)
- Image:Hi5 logo (4)
- Image:Google+ image (5)
- Other (6) ____________________

**General demographic / geographic data**

Now please answer a few questions about yourself.

Gender
- Male (1)
- Female (2)

How old are you:

In which country were you born:


In which country are you currently living?___________________
What is your marital status?
- single, never married (1)
- married (2)
- divorced (3)
- widowed (4)
- separated (5)
What is the highest level of education you have attained?
- Graduate degree (Masters, JD, MD, PhD, etc.) (1)
- Bachelor's degree or a 4 year college degree school (2)
- Associate's degree or a 2 year college degree (3)
- High school graduate (4)
- Did not graduate high school (5)
How would you describe your employment status?
- Employed full-time (1)
- Employed part-time (2)
- Unemployed / looking for job (3)
- Student (4)
- Homemaker (5)
- Retired (6)
- Unable to work (7)
What is your total yearly income (in $)?
- up to $10,000 (1)
- up to $20,000 (2)
- up to $30,000 (3)
- up to $50,000 (4)
- up to $75,000 (5)
- up to $100,000 (6)
- up to $150,000 (7)
- more than $150,000 (8)
What is your primary occupation?_____________________

Attention check question
Most modern theories of decision making recognize the fact that decisions do not take place in a vacuum. Individual preferences and knowledge, along with situational variables can greatly impact the decision process. In order to facilitate our research on decision making we are interested in knowing certain factors about you, the decision maker. Specifically, we are interested in whether you actually take the time to read the directions; if not, then some of our investigations that rely on changes in the instructions will be ineffective. So, in order to demonstrate that you have read the instructions, please ignore the preferences form below, and simply type "I read the instructions" under Other Activities:
- Watching Athletics (1)
- Participating in Athletics (2)
- Reading (3)
- Watching Movies (4)
- Cooking (5)
- Electronic Games (6)
- Board or Card Games (7)
- Attending Cultural Events (8)
- Religious Activities (9)
- Travel (10)
- Outdoor Activities (Hiking, Camping, etc.) (11)
- Other Activities (12) __________________
Appendix 6: 3x2 ANOVAs for all variables

Tests of Between-Subjects Effects
Dependent Variable: Expectancy violation

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>24.212</td>
<td>5</td>
<td>4.842</td>
<td>2.712</td>
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</tr>
<tr>
<td>Intercept</td>
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<td>1</td>
<td>1299.374</td>
<td>727.612</td>
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</tr>
<tr>
<td>Certainty</td>
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<td>1</td>
<td>.120</td>
<td>.607</td>
<td>.796</td>
</tr>
<tr>
<td>Expertise</td>
<td>23.741</td>
<td>2</td>
<td>11.870</td>
<td>6.647</td>
<td>.002</td>
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<tr>
<td>Certainty * Expertise</td>
<td>.846</td>
<td>2</td>
<td>.423</td>
<td>.237</td>
<td>.790</td>
</tr>
<tr>
<td>Error</td>
<td>160.722</td>
<td>90</td>
<td>1.786</td>
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</tr>
<tr>
<td>Total</td>
<td>1527.444</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>184.934</td>
<td>95</td>
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</tr>
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</table>

a. R Squared = .131 (Adjusted R Squared = .083)

Tests of Between-Subjects Effects
Dependent Variable: Involvement

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<th>Sig.</th>
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<tbody>
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<td>Corrected Model</td>
<td>14.725</td>
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<td>2.945</td>
<td>1.164</td>
<td>.333</td>
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<tr>
<td>Intercept</td>
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<td>2032.105</td>
<td>803.465</td>
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<td>Certainty</td>
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<td>2.834</td>
<td>1.120</td>
<td>.293</td>
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<td>4.142</td>
<td>1.638</td>
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<td>2</td>
<td>1.663</td>
<td>.658</td>
<td>.521</td>
</tr>
<tr>
<td>Error</td>
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<td>90</td>
<td>2.529</td>
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</tr>
<tr>
<td>Total</td>
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<td>96</td>
<td></td>
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a. R Squared = .061 (Adjusted R Squared = .009)

Tests of Between-Subjects Effects
Dependent Variable: Intentions (Persuasion)

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<th>Sig.</th>
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<tr>
<td>Intercept</td>
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<td>2242.483</td>
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<td>Certainty</td>
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<td>5.934</td>
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<td>Expertise</td>
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<td>4.319</td>
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<td>.073</td>
<td>.041</td>
<td>.960</td>
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a. R Squared = .119 (Adjusted R Squared = .070)

Tests of Between-Subjects Effects
Dependent Variable: Trustworthiness
## Tests of Between-Subjects Effects

**Dependent Variable: Likability**

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<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>37.340$^a$</td>
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<td>4.329</td>
<td>.001</td>
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<tr>
<td>Intercept</td>
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</tr>
<tr>
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<td>.654</td>
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<td>.500</td>
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a. R Squared = .194 (Adjusted R Squared = .149)

## Tests of Between-Subjects Effects

**Dependent Variable: Similarity**

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</thead>
<tbody>
<tr>
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<td>Expertise</td>
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a. R Squared = .336 (Adjusted R Squared = .299)
Tests of Between-Subjects Effects

Dependent Variable: Manipulation check for expertise

<table>
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<tr>
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<th>Sig.</th>
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<tr>
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<td>.080</td>
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a. R Squared = .362 (Adjusted R Squared = .327)

Tests of Between-Subjects Effects

Dependent Variable: Manipulation check for certainty

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<th>Sig.</th>
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<td>6.526</td>
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</tr>
<tr>
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<td>.799</td>
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a. R Squared = .121 (Adjusted R Squared = .072)