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Stimulating referral behavior may backfire for men:
The effect of referral failure on susceptibility to persuasion

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The effect of referral failure on susceptibility to persuasion.

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We present the referral-backfire effect, reflecting the phenomenon that consumers become less susceptible to persuasive attempts when they experienced referral failure. In two lab studies and one field study, we provide evidence for the effect and for the hypothesis that the effect occurs because referral failure is interpreted as a sign that the sender's social relations are threatened.

INTRODUCTION

Suppose that John recommended brand A to Mary and soon afterwards notices that she has purchased *brand A [brand B instead]*. Would he experience *positive [negative]* affect if he infers that Mary *did [did not]* follow his recommendation and purchased brand *A [B]*? And would this have a consequence for his own willingness to follow recommendations? Although this situation is common in daily life, we are not aware of any prior research that addressed the effect of word-of-mouth outcome on the *sender* of this information.

It has been known for ages that consumers rely on word-of-mouth (hereafter WOM) (Arndt 1967; Whyte 1954) information when they lack direct experience with the product (Herr, Kardes, and Kim 1991). A considerable amount of literature explored the effects of offline and online referral behavior on the *receiver* of the information (*offline*: Anderson 1998; Banerjee 1992, 1993; Bowman and Narayandas 2001; Brown and Reingen 1987; Duhan et al. 1997; Richins 1983; Richins and Root-Shaffer 1988; *online*: Chatterjee, Hoffman, and Novak 2003; De Bruyn and Lilien 2004; Dellarocas 2003; Hennig-Thurau et al. 2004; Phelps et al. 2004; Smith, Menon, and Sivakumar 2005). However, it remains an open question whether social feedback concerning the referral outcome (either referral success or referral failure) has an influence on the *sender*. In the present paper, we provide a first attempt at filling this gap in the literature and focus on the effect referral outcome may have on the sender rather than on the receiver.

We first consider which meaning referral outcome may have for the sender of the referral. We claim that referral outcome is informative of the state of one's social relations. A literature review suggests that referral failure may be more informative than referral success, and may be interpreted as a sign that one's social relations are

threatened. One possible reaction to such a situation may be a reduced susceptibility to persuasive messages. To summarize, we will test the relation between referral failure and susceptibility to persuasion. The contribution of our paper is (1) providing evidence for this effect in a scenario study, a lab experiment, and an internet field study and (2) showing that referral failure is interpreted as a sign that the sender's social relations are threatened.

THE REFERRAL-BACKFIRE EFFECT

We argue that referral outcome is interpreted as an index of the state of one's social relations. Moreover, it has been found that people tend to overweigh negative information. This greater sensitivity of individuals to negative than to positive information has been called the negativity bias (Cacioppo and Berntson 1994; Cacioppo, Gardner, and Berntson 1997; Peeters and Czapinski 1990; Skowronski and Carlston 1989; Taylor 1991). This asymmetry has two important consequences. First, it allows us to predict that referral failure will have a more pronounced effect than referral success. We test this prediction in Study 1. Moreover, the referral outcome may convey information about two related but distinct states: status and self-esteem. Barkow (1989) suggested that self-esteem gauges a person's social status in a group. Consistent with this theory, we suggest that a threat to the ego will trigger strategies that reduce that threat. People may prefer to withdraw from the situation, and if that is not possible, they may mentally withdraw, for instance by resisting persuasion. Consistently, Sommer and Baumeister (2002) showed that upon experiencing ego threat, people with low self-esteem were more likely to withdraw from the social situation than people with high self-esteem. Further, Donnellan et al. (2005)

documented a strong relationship between low self-esteem and antisocial behavior. We argue that resisting persuasion can be considered as a mild form of antisocial behavior. Furthermore, the asymmetry also allows us to suggest a more specific term for the effect. Because we expect the effect to occur only after referral failure, we call it the *referral backfire effect:* those who refer unsuccessfully become less susceptible to persuasive attempts.

Furthermore, there is ample evidence that status is a more important striving to men than to women (Moskowitz 1993; Pratto 1996), which is attributed to the fact that women value status in men more than men value status in women (Buss and Schmitt 1993). Together with the insight that influence attempts are more likely and more successful among people with a high status (Anderson et al. 2001) and the assumption that referral failure is informative about one's status (Barkow 1989), we expect that the effect of referral outcome will be more pronounced for men than for women. We test this prediction in Study 1.

In their sociometer theory, Baumeister and Leary (1995) showed that self-esteem is a gauge for the quality of one's relationships. In addition, this theory suggests that a state of low self-esteem is more informative than a state of high self-esteem with respect to the health of one's social relations (Baumeister and Leary 1995). High self-esteem seems to be the default state, whereas low self-esteem is the marked negative state. Indeed, people with low self-esteem have been shown to react more strongly to signs indicating that there is something wrong with their social position (Sommer and Baumeister 2002). Our suggestion that referral outcome signals the state of one's social relationships implies that the effect should be moderated by the sender's self-esteem: Low self-esteem people consider their social relations more at risk, which increases their motivation to detect information about the health of their social

relations and their sensitivity to this type of information (Baumeister and Leary 1995). We therefore predict that the referral-backfire effect should be stronger for people with low self-esteem than for people with high self-esteem. We tested this prediction in Study 2.

THE PRESENT STUDIES

The contribution of this paper is providing evidence for the referral backfire effect: we show in three studies that referral failure reduces susceptibility to persuasion. In two lab experiments, we show that referral failure rather than referral success increases the sender's resistance to persuasion attempts and that this should be interpreted as an act of withdrawal from the situation. Moreover, this effect is more pronounced for men than for women. Finally, in Study 3, we replicate the referral-backfire effect in a quasi-natural online purchase setting. Through the three studies, we operationalize referral outcome as the (known) number of people that follow a person's referral. We operationalize susceptibility to persuasion attempts (marketing messages) as the extent to which the influencer follows product advice (Study 1 and Study 2) and spends time and money on a website (Study 3).

STUDY 1

In the first study, we manipulated referral outcome in a first phase and subsequently measured susceptibility to persuasion. Participants first had to imagine that their friends either *always* or *never* followed their advice. In addition, participants had to rate several filler items. We also added a control condition in which there was not advice phase. In a seemingly unrelated experiment, they subsequently received

advice from an expertise health magazine on a new food item and we measured whether they followed this advice. With this lab study, we attempted to obtain three aims. The first aim was to provide evidence for a relation between referral outcome and reaction to persuasion attempts. The second aim was to test whether experiencing referral success makes consumers *more* susceptible to persuasion attempts or whether experiencing referral failure makes consumers *less* susceptible to persuasion attempts. In order to test this, we included a control condition as a baseline for comparison. If experiencing referral success increases susceptibility, susceptibility should be higher in the referral success condition compared to the control and the referral failure conditions. However, if experiencing referral failure decreases susceptibility, susceptibility should be lower in the referral failure condition compared to the control and the referral success conditions. The third aim was to provide evidence that referral failure serves as an index of status loss by showing that the referral backfire effect is stronger for men than for women.

Method

One hundred and fifty-five college students (52 men and 103 women), aged between 18 and 30, participated in this experiment in exchange for a participation fee. They came in groups of eight and participated individually on PC.

Manipulation of Referral Outcome. In a first phase, we manipulated referral outcome by means of a scenario. Participants were given the following scenario:

"You are the son/daughter of the manager of a small movie theater in your town. This gives you the chance to watch all movies for free and before all the others. Your

friends are aware of this and they frequently ask you which movies are worthwhile to see. After a while, you notice that your advice is *often or always [seldom or never]* followed; they prefer the movies *you liked [you did not like]*."

In the control condition, participants received a neutral filler task of similar length.

Intermediate measures. After the Referral outcome manipulation, participants completed the PANAS (Positive Affect Negative Affect Scale; Watson, Clark, and Tellegen 1988). This scale measures both positive and negative affect, each with 10 affect items.

Measurement of susceptibility. Following Fitzsimons and Lehmann (2004), we told participants that researchers of a food manufacturer were developing a new granola bar and were interested in consumer impressions. Subsequently, participants received the descriptions of four potential granola bar formulations on two different attributes, that is taste and calories. Attribute values for each of the four formulations on taste (1: poor taste, 10: excellent taste) and number of calories were, respectively: A: 7.5, 125; B: 8, 365; C: 9, 220; D: 6, 150. Formulations A and C are relatively attractive, while formulations B and D are relatively less attractive (Fitzsimons and Lehmann 2004). Next, participants received expert reports from an expertise magazine (e-health) that strongly recommends either granola bar A or C (counterbalanced between participants). After this advice, participants were asked to indicate one of 20 different combinations of three granola bars which they would prefer if they were given the chance to choose three granola bars (e.g., "A:1, B:1, C:1, D:0"; "A:2, B:1, C:0, D:0"; "A:0, B:0, C:3, D:0", …), following Fitzsimons and Lehmann (2004). This measure allowed us to create a new variable 'Susceptibility',

which is the number of the advised granola bar they selected in the chosen combination of three granola's. For instance, if granola bar A is recommended and the participant chose the combination "A:2, B:1, C:0, D:0", the Susceptibility of this participant totals 2.

Results and discussion

To test whether referral outcome (high, low, or control) had an influence on persuasion susceptibility, we performed an ANOVA with Susceptibility (0-3) as the dependent variable and the Referral Outcome manipulation and Gender as independent variables. The main effect of the Referral Outcome manipulation was significant, $F(2, 149) = 5.61$, $p = .004$ as well as the main effect of Gender, $F(1, 149) = 7.33$, $p = .008$. However, the interaction between Referral Outcome and Gender qualified the main effects, $F(2, 149) = 4.14$, $p = .018$. As depicted in Figure 1, this interaction showed that the Referral Outcome influenced susceptibility only for men. In the Referral Failure condition ($M = 0.56$, $SD = 0.51$) men were less susceptible compared to the control condition ($M = 1.55$, $SD = 0.91$; $F(1, 149) = 15.27$, $p = .0002$) and the Referral Success condition ($M = 1.21$, $SD = 0.98$; $F(1, 149) = 5.41$, $p = .021$). The Referral Success condition was not significantly different from the control condition, $F(1, 149) = 1.60$. For women, there were no significant differences between the three conditions (all Fs < 1). The Referral Outcome manipulation had no significant effect on the PANAS (Fs < 1).

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Insert figure 1 about here

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These results imply that, for men, experiencing a referral failure leads to a decreased susceptibility to persuasion attempts, even by third parties. Experiencing influence does not seem to lead to an increased vulnerability to persuasion attempts. The fact that this referral-backfire effect only occurs for men is consistent with our notion that men are more sensitive to status information, and that referral failure is informative about one's status. In the second study, we attempted to find additional evidence for this claim by testing whether self-esteem moderates the referral outcome effect on persuasion in men.

STUDY 2

We had two aims in Study 2. The first aim was to replicate the finding of Study 1 with actually experienced referral outcome and real choice behavior. The second aim was to provide further evidence for our interpretation that referral failure is interpreted as a sign of threatened social relations. We argue that the referral-backfire effect should be moderated by the self-esteem level. We predict that the referral-backfire effect should be stronger for people with low self-esteem than for people with high self-esteem. After all, low self-esteem people are more sensitive to signals of status loss (Barkow 1989; Baumeister and Leary 1995). Because the effect in the first study was obtained for men only, we chose to use only male students in the second study. Moreover, the first study showed that experiencing a lack of influence (i.e., referral failure) makes consumers *less* susceptible to persuasion attempts. As experiencing referral success was comparable to the neutral situation (i.e., the control condition),

we chose to keep only the referral success and referral failure conditions. In summary, in this study we cross referral outcome (success vs. failure) with self-esteem.

Method

One hundred and eight male college students, aged between 18 and 25, participated in this experiment in exchange for course credit. They came in groups of eight and participated individually on PC.

Participants were told that the experiment was a test case for a larger project, which investigated the possibilities of a communication network between two consumer labs via the internet. Participants were told that the research concerned the fluency of communication when participants saw each other's picture during e-communication. Consistent with the story, we took each participant's picture and allegedly sent it to the other lab by e-mail. In reality, there was no interaction partner, and the alleged interaction partner's behavior was preprogrammed. In the remainder, we use *interaction partner(s)* to denote the people interacting (of which one was fictitious). We use *participant* to refer to the actual person participating in the experiment.

The actual experiment consisted of two phases. In each phase, participants were connected to an interaction partner of the other lab. In the first phase the participant was called the *advisor* and helped the interaction partner to make the decision. In the second phase, the participant was the *decision maker*, and was advised by a *different* interaction partner of the other lab. All participants started in the role of advisor although they thought that their starting role was randomly assigned.

In both phases, both interaction partners received a list of 6 product categories (cell phones, backpacks, toothbrushes, laptops, ballpoints and yoghurts). For each category, they had to choose one product out of three options, each shown by a picture. In the advisor phase, participants had to make a suggestion. Their suggestion was sent to the interaction partner (i.e., the decision maker in the first phase). Then, the interaction partner had to choose and the participant was told the interaction partner's choice. The interaction partner motivated his choices by referring to his personal preferences. Participants then completed some questions related to the fluency of communication and to their self-esteem (Rosenberg 1965). In the second phase, the roles were reversed. The participant (i.e., the decision maker in the second phase) received the interaction partner's suggestion (advisor), and then had to make his choice. He was aware that he had to motivate all his choices afterwards.

Manipulation of Referral Outcome (phase 1). In the Referral Success condition the interaction partner followed the participant's choice 5 out of 6 times. In the Referral Failure condition the interaction partner followed the participant's choice only 1 out of 6 times.

Self-esteem was measured using a 10 item self-esteem measure (Rosenberg 1965). The items showed high internal consistency (Cronbach's α = .82) which allowed us to use the average score.

Susceptibility. In the second phase the interaction partner always advised to choose the least attractive product out of the three (which was pre-tested with 46

participants). The measure of susceptibility was the number of times (0-6) the participant followed the interaction partner's advice.

Results and discussion

We excluded 1 outlier (0.9 %) from analyses following the 3 SDs criterion. We performed an ANOVA with Referral Outcome and Self-Esteem (dichotomized) as independent variables and the participants' Susceptibility measure as dependent variable. We found that Referral Failure led to less susceptibility ($M = 1.77$, $SE = .12$) than Referral Success ($M = 2.09$, $SE = .12$), $F(1,103) = 6.41$, $p < .02$, replicating the findings of Study 1. Indeed, this finding again implies that experiencing referral failure decreases susceptibility to persuasion attempts by third parties.

Consistent with our hypothesis that referral failure signals a loss in social status, we found a significant interaction between Self-Esteem and Referral Outcome, $F(1,103) = 5.49$, $p < .03$. As Figure 2 shows, the effect of Referral Outcome was larger for men with low self-esteem (F(1,103) = 9.50, p < .004) than for men with high self-esteem (F(1,103) = 0.06, NS). Self-esteem was not affected by the Referral Outcome manipulation ($M_{\text{SUCCES}} = 4.20$ vs $M_{\text{FAILURE}} = 4.30$, $F(1,106) = 0.91$, $p = .34$).

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In this study, we replicated the referral-backfire effect that we found in the first study. Namely, for men, experiencing referral failure led to a decreased susceptibility to persuasion attempts (by third parties). Additionally, we provided further evidence

that the effect relies on a cue for perceived status loss. Men with low self-esteem are more vulnerable to the effect than men with high self-esteem.

The referral-backfire effect occurred in two different situation using different manipulations in the laboratory. To provide greater external validity for the effect, we designed a field study as a third and final study.

STUDY 3

The third study we report on is an internet field study that allowed us to test whether the real (electronic) referral outcome influences real activity on a website, and ultimately, real online purchase behavior, controlling for variables such as internet experience and opinion leadership.

Method

Participants were students of different colleges in the same town. Data were collected over a period of 14 weeks in the autumn of 2003. In the registration period (8 weeks), 1246 persons (623 men and 623 women) registered.

Overview of the site and the rules. On the website that was created for this purpose, students were informed about the activities of student activities in town, such as parties, movies, concerts, etc. Some of the information came in the form of games (i.e., advergames). Visitors could collect information, pass the information to friends, and buy tickets for student parties. Through all these actions, participants could win prizes, such as free tickets and gadgets by the sponsors. In addition to these small

prizes, visitors could also win a larger prize (a barrel of beer) by collecting points. They could collect points by successfully inviting friends (6 points for each friend that registered), ordering tickets (3 points), giving the right answer to a quiz question (3 points) and playing a game (up to maximum 4 extra points each time). In addition to these individual games, surfers also had the opportunity to participate in the collective contest between student organizations of different faculties. The faculty that was most active (on average) also received a barrel of beer.

The product that was provided on the site (i.e., entrance tickets) was posted by the student organizations. The system allowed the students' organizations to post the required information about events on the website. In addition, they provided three free tickets as prizes for the visitors reserving their ticket online. At all times, the organizations could glance through who ordered tickets and who had free access to their activity. A newsletter, which contained a tip, upcoming activities, and a list of winners, was sent every week to participants who wished to receive one. This was done to generate a continuous stream of visitors.

Measurements. At registration, the participants were asked to fill in some personal data; name, their official college e-mail (to avoid multiple registrations), address, age, gender, faculty, experience with the internet (hardly, < 1 year, 1-2 years, 2-3 years, > 3 years), and whether they played for themselves (individually) or for their student organization (collectively), and if so, for which organization they played. Additionally, participants had to choose a unique username and password, which allowed us to store all relevant information in the database at each log-in. Upon registering participants were assigned a user-id in the form of a number that was used as a proxy-variable of registration date. We further measured time spent online, total

number of points earned, the number of tickets bought, and how many newsletters opened. During each visit, surfers had the opportunity to invite friends. For each visitor, we measured whether she had been invited by someone else or not, how many friends she had invited, and how many of these friends actually registered using her lead. This latter variable is our operationalization of the electronic referral outcome.

Results and discussion

Method of analysis. In general, we expect a positive correlation between all variables measuring activity on the site. We focus on six variables: four 'effectiveness' variables: number of tickets ordered online, time spent, number of times that they logged in, and number of points that they earned. The other two variables are the number of friends they invite, and the number of friends that follow their lead. Specifically, the positive correlation between those six variables implies that the number of friends a visitor invites should be correlated with the effectiveness variables. The referral backfire effects allows us to predict that the number of friends that follow a visitor's lead, will explain the relationship between the number of friends that a visitor invited, and the four effectiveness variables. That is, we predict that the correlation between inviting friends and activity on the site will be mediated by the number of successful referrals. Although the causal direction of this mediation cannot be verified in the present study, studies 1 and 2 provide evidence that referral outcome causes susceptibility to persuasion.

The intercorrelation between the effectiveness variables, referral, referral outcome, and some background variables. We were interested in the effect of the

electronic referral outcome on online purchase behavior, controlling for internet experience and opinion leadership (approximated by registration date and the number of invited people, correlation between both variables was $r = -.18$, $p < .0001$). Over all participants, correlations showed that the number of tickets (M = 0.08, SD = 0.78) visitors bought, was related to the registration date ($r = -0.10$, $p < .0007$, that is, the earlier they registered, the more tickets they bought), time spent online ($r = 0.15$, $p < .0001$), points earned ($r = 0.39$, $p < .0001$), number of logins ($r = 0.39$, $p < .0001$), number of people invited ($r = 0.15$, $p < .0001$), and electronic referral outcome ($r = 0.18$, $p < .0001$), but not to experience with the internet ($r = -0.04$, ns) or to the number of newsletters opened ($r = 0.05$, ns). Those who had been invited themselves bought more tickets than others (M = 0.26, SD = 1.72 vs M = 0.05, SD = 0.55), $F(1, 1244) = 8.85$, $p < .004$). Gender had a marginally significant impact on the number of tickets bought ($M_{men} = 0.11$, SD = 1.02 vs. $M_{women} = 0.04$, SD = 0.42; $F(1, 1244) = 2.81$, $p = .09$): men tended to buy more tickets than women.

Test of the referral backfire effect. To test whether the electronic referral outcome explains whether people stick to or withdraw from the site, we conducted a series of regression analyses. We first regressed the four effectiveness variables onto the total number of invited people by each participant (i.e., the number of invitees). This variable had a significant effect on all four effectiveness variables (see Table 1, column A). We then regressed the same effectiveness variables onto electronic referral outcome as a predictor variable; electronic referral outcome had significant effects on the four effectiveness variables (see Table 1, column B). Moreover, because the number of invitees was highly and positively correlated with electronic referral outcome ($r = 0.83$, $p < .0001$), a mediation test was allowed (Baron and Kenny

1986). Including the number of invitees and the electronic referral outcome simultaneously as predictors for the four variables removed the effect of the number of invitees to the advantage of the electronic referral outcome (see Table 1, column C). The Sobel (Baron and Kenny 1986) tests showed that referral outcome mediated the effect of referral behavior (all Z's > 5 and p's < 0.00001).

Consistent with the findings of the first two lab studies, people who fail in influencing others appear to be less susceptible to influence attempts than people who are successful in influencing others. They visit the site less often and for a shorter period of time, play fewer games, and eventually order fewer tickets. This behavior suggests that they seem to withdraw from the site.

Because the number of tickets bought slightly differed between men and women and because we found that women did not suffer from the referral backfire effect in Study 1, we performed the same analyses separately for men and women. For both men and women, the number of invitees was highly and positively correlated with electronic referral outcome ($r_{men} = 0.86$, $p <.0001$; $r_{women} = 0.80$, $p <.0001$). However, the analyses showed that electronic referral outcome mediated the effect of the referral behavior and the four effectiveness variables only for men (Table 2) but not for women. For men, the Sobel tests confirmed the mediation; all Z's > 4 and p's < 0.00001.

These data show that electronic referral outcome mediates the effect of the number of invitees on the number of ordered tickets, the total time online, the total number of logins and the total amount of points. The correlational nature of the data does not allow us to express the causal link between the experienced referral outcome and the reaction to persuasion attempts. However, together with the data of the first two studies, these findings suggest that, especially for men, it is experiencing a *lack of*

influence which might lead to a *decreased susceptibility* to persuasion attempts and withdrawal from the situation, in this case the website.

GENERAL DISCUSSION

In our research, we examined to what extent the mere experience that others follow or do not follow a consumer's advice affects the same consumer's susceptibility to persuasion attempts. We found both in two controlled experiments and an internet field study that (electronic) referral failure engenders a lower susceptibility to persuasion for men. We called this effect the referral-backfire effect. Experiencing referral success did not differ from the control (without referral) condition in the first study, implying that the change in susceptibility results from negative rather than from positive information. This finding is in line with the negativity bias, which states that people are more sensitive to negative than to positive information (Cacioppo and Berntson 1994; Cacioppo et al. 1997; Peeters and Czapinski 1990; Skowronski and Carlston 1989; Taylor 1991).

We suggest that referral failure is a sign that one's social relations are threatened. Consistent with this view, we found that the referral-backfire effect was more pronounced in men than in women. Men are known to be more concerned about cues that are informative about status than women. Consistent with this view, in the second study in which participants experienced actual referral success or failure, we found that men with low self-esteem reacted more strongly to referral failure than men with high self-esteem.

The results of the third study, a field study, show the external validity of the referral-backfire effect. Men experiencing a referral failure were less susceptible to persuasion attempts than men experiencing referral success.

OPPORTUNITIES FOR FUTURE RESEARCH

Future research may explore to what extent our findings are related to an external attribution of failure. In their research concerning the self-serving bias, Duval and Silvia (2002) found that failure is attributed internally (i.e., to the self) only when failure can be rapidly remedied. When likelihood of quick improvement seems low, however, failure will be attributed externally. In our research, people can only do their best in giving good advice to others but they cannot control whether or not the others follow this advice. In other words, the participants in our research were not able to improve their referral failure. Consequently, the referral failure should be attributed externally. This would imply that in the two lab experiments, referral failure could be attributed to the lab situation, resulting in less susceptibility to the persuasion attempts in the following tasks. In the field study the referral failure would probably be attributed to the website, resulting in reduced website visiting behavior, time online and tickets bought. What would happen if the failure is attributed internally? Consumers may be motivated to learn more about the product rather than withdraw and spend more rather than less time online. Therefore, an interesting question would be what factors drive the attribution of referral failure.

IMPLICATIONS

Our findings have an increasing marketing relevance in the thriving e-environment which blurs the distinction between sender and receiver of marketing messages (Barwise, Elberse, and Hammond 2002; Hoffman, Novak, and Chatterjee 1995; Winer et al. 1997). In this online environment, senders of referrals (i.e., influencers) often unambiguously know whether someone followed their lead. For instance, in systems where influencers receive a benefit for every person that registered using the influencer's lead, the influencer is informed about every referral success. Furthermore, influencers typically receive this feedback when they visit the website (i.e., purchase context) again. The findings imply that instigating people to "word-of-mouse" (e.g., 'send to a friend' links) comes at a serious risk that the referring consumer will experience referral failure and consequently will be less susceptible to persuasion attempts on the website. Moreover, these recommending consumers may become less willing to advocate at all in the future. Given the importance of recommenders for a company's long term success (Reichheld 2001, 2003), losing this type of people might even be worse than losing customers in general. Therefore, it may prove useful to design tactics that prevent the referral-backfire effect from occurring. For example, the site might urge senders to invite only people who would be interested, reducing the likelihood that they receive negative feedback. The criterion of success could also be lowered. Success now arises often only if the invitee subscribes using the inviter's lead. Success might also be achieved from the moment the invitee opens the e-mail. To conclude, our data suggest that companies should be cautious with introducing referral systems like "member-gets-member". Referral failures may have a hidden cost.

REFERENCES

Anderson, Eugene W. (1998), "Customer satisfaction and word of mouth," *Journal of Services Research*, 1(1), 5-17.

Anderson, Cameron, Oliver P. John, Dacher Keltner, and Ann M. Kring (2001), "Who attains social status? Effects of personality and physical attractiveness in social groups," *Journal of Personality and Social Psychology,* 81(1), 116-132.

Banerjee, Abhijit V. (1992), "A simple model of herd behavior," *Quarterly Journal of Economics*, 110, 797–817.

Banerjee, Abhijit V. (1993), "The economics of rumours," *Review of Economic Studies*, 60, 309–327.

Barkow, Jerome H. (1989), *Darwin, sex, and status: Biological approaches to mind and culture,* Toronto: University of Toronto.

Barwise, Patrick, Anita Elberse, and Kathy Hammond (2002), "Marketing and the Internet," in *Handbook of Marketing,* eds. Barton A. Weitz and Robin Wensley, London: Sage, 527-557.

Baron, Reuben M. and David A. Kenny (1986), "The moderator-mediator distinction in social-psychological research: Conceptual, strategic, and statistical consideration," *Journal of Personality and Social Psychology,* 51, 1173-1182.

Baumeister Roy F. and Mark R. Leary (1995), "The need to belong: Desire for interpersonal attachments as a fundamental human motivation," *Psychological Bulletin*, 117(3), 497-529.

Bowman, Douglas and Das Narayandus (2001), "Managing customer-initiated contacts with manufacturers: The impact on share of category requirements and word-of mouth behavior," *Journal of Marketing Research*, 38, 291-297.

Brown, Jacqueline J. and Peter H. Reingen (1987), "Social ties and word-of-mouth referral behavior," *Journal of Consumer Research*, 14, 350–362.

Buss David M. and David P. Schmitt (1993), "Sexual strategies theory: an evolutionary perspective on human matin," *Psychological Review*, 100(2), 204-232.

Cacioppo, John T. and Gary G. Berntson (1994), "Relationship between attitudes and evaluative space: A critical review, with emphasis on the separability of positive and negative substrates," *Psychological Bulletin, 115*, 401-423.

Cacioppo, John T., Wendi L. Gardner, and Gary G. Berntson (1997), "Beyond bipolar conceptualizations and measures: The case of attitudes and evaluative space," *Personality and Social Psychology Review, 1*, 3-25.

Chatterjee, Patrali, Donna L. Hoffman, and Thomas P. Novak (2003), "Modeling the clickstream: Implications for web-based advertising efforts," *Marketing Science*, 22(4), 520–541.

De Bruyn, Arnaud and Gary L. Lilien (2004), "A multi-stage model of word of mouth through electronic referrals," Working Paper No. 2004-02, eBusiness Research Center Research Paper Series.

Dellarocas, Chrysanthos (2003), "The digitization of word-of-mouth: Promises and Challenges of Online Feedback Mechanisms," *Management Science*, 49(10), 1407-1424.

Donnellan, Brent M., Kali H. Trzesniewski, Richard W. Robins, Terrie E. Moffitt, and Avshalom Caspi (2005), "Low Self-Esteem Is Related to Aggression, Antisocial Behavior, and Delinquency," *Psychological Science,* 16(4), 328-335.

Duhan, Dale F., Scott D. Johnson, James B. Wilcox, and Hilbert D. Harrell (1997), "Influences on Consumer Use of Word-of-Mouth Recommendation Sources," *Journal of the Academy of Marketing Science*, 25(4), 283–295.

Duval, Thomas Shelley and Paul J. Silvia (2002), "Self-awareness, probability of improvement, and the self-serving bias," *Journal of Personality and Social Psychology, 82* (1), 49-61.

Fitzsimons, Gavan J. and Donald R. Lehmann (2004), „Reactance to recommendations: When unsolicited advice yields contrary responses," *Marketing Science, 23*(1), 82-94.

Hennig-Thurau, Thorsten, Kevin P. Gwinner, John Walsh, and Dwayne D. Gremler (2004), "Electronic Word-of-Mouth via Consumer-Opinon Platforms: What Motivates Consumers to Articulate Themselves on the Internet?," *Journal of Interactive Marketing*, 18 (1), 38-52.

Herr, Paul M., Frank R. Kardes, and John Kim (1991, March), "Effects of Word-of-Mouth and Product Attribute Information on Persuasion: An Accessibility-Diagnosticity Perspective," *Journal of Consumer Research*, 17, 454–462.

Hoffman, Donna L., Thomas P. Novak, and Patrali Chatterjee (1995), "Commercial scenarios for the web: opportunities and challenges," *Journal of Computer Mediated Communication, Special Issue on Electronical Commerce*, *1*(3).

Moskowitz, Debbie S. (1993), "Dominance and friendliness: On the interaction of gender and situation," *Journal of Personality, 61*, 387-409.

Peeters, Guido and Janusz Czapinski (1990), "Positive-negative asymmetry in evaluations: the distinction between affective and informational negativity effects," *European Review of Social Psychology*, *1*, 33-60.

Phelps, Jospeh E., Regina Lewis, Lynne Mobilio, David Perry, and Niranjan Raman (2004), "Viral Marketing or Electronic Word-of-Mouth Advertising: Examining Consumer Responses and Motivations to Pass Along Email," *Journal of Advertising Research, 44*(4), 333-348.

Pratto, Felicia (1996), "Sexual politics: The gender gap in the bedroom, the cupboard, and the cabinet," in *Sex, power, conflict: Evolutionary and feminist perspectives,* eds. David M.E. Buss and Neil M.E. Malamuth, London: Oxford University Press, 179–230.

Reichheld, Fred F. (2001), *Loyalty Rules! How Today's Leaders Build Lasting Relationships,* Boston: Harvard Business School Press.

Reichheld, Fred F. (2003), "The one number you need to grow," *Harvard Business Review,* 81 (12), 46-54.

Richins, Marsha L. (1983), "Negative word-of-mouth by dissatisfied consumers: A pilot study," *Journal of Marketing*, 47, 68-78.

Richins, Marsha L. and Teri Root-Shaffer (1988), "The Role of Involvement and Opinion Leadership in Consumer Word-of-Mouth: An Implicit Model Made Explicit," *Advances in Consumer Research*, 15, 32–36.

Rosenberg, Morris (1965), *Society and the Adolescent Self-Image,* Princeton University Press.

Skowronski, John J. and Donal E. Carlston (1989), "Negativity and extremity biases in impression formation: A review of explanations," *Psychological Bulletin,* 105, 131-142.

Smith, Donnavieve, Satya Menon, and K. Sivakumar (2005), "Online peer and editorial recommendations, trust, and choice in virtual markets," *Journal of Interactive Marketing*, 19(3), 15-37.

Sommer, Kristin L. and Roy F. Baumeister (2002), "Self-evaluation, persistence, and performance following implicit rejection: The role of trait self-esteem," *Personality and Social Psychology Bulletin,* 28(7), 926-968.

Watson, David, Lee A. Clark, and Auke Tellegen (1988), "Development and validation of brief measures of positive and negative affect: The PANAS scales," *Journal of Personality and Social Psychology, 54,* 1063-1070.

Winer, Russell S., John Deighton, Sunil Gupta, Eric J. Johnson, Barbara Mellers, Vicki G. Morwitz, Thomas O'Guinn, Arvind Rangaswamy, and Alan Sawyer (1997), "Choice in computer-mediated environments," *Marketing Letters, 8*, 287-296.

Whyte, William H., Jr. (1954), "The web of word of mouth," *Fortune*, 50.

TABLE 1

Regression of the four effectiveness variables (i.e., the number of tickets ordered online, the time spent online, the number of times that they logged in, and the number of points that they earned) onto the total number of invitees (A), the electronic referral outcome (B), and the total number of invitees *and* the electronic referral outcome simultaneously as predictor variable(s) (C) for men and women, study 3.

Men and women

Predictors Dependents	A Effect of Number of invitees (1)		B Effect of Electronic Referral Outcome (2)		C Effect of (1)		Effect of (2)	
	β	t	β	t	β	t	β	t
Ordered tickets	0.047	5.48**	0.22	6.27**	0.008	0.55	0.19	3.06*
Total time online	590.22	20.17**	2928.16	26.65**	-10.4	-0.22	2963	15.1**
Total number of logins	1.26	13.49**	6.26	17.10**	-0.05	-0.28	6.42	9.81**
Total amount of points	9.13	16.69**	47.04	22.61**	-1.3	-1.43	51.42	13.9**

*   Parameters are significant at $p<0.005$ **   Parameters are significant at $p<0.0001$

TABLE 2

Regression of the four effectiveness variables (i.e., the number of tickets ordered online, the time spent online, the number of times that they logged in, and the number of points that they earned) onto the total number of invitees (A), the electronic referral outcome (B), and the total number of invitees *and* the electronic referral outcome simultaneously as predictor variable(s) (C) for men only, study 3.

Men only

Predictors Dependents	**A** Effect of Number of invitees (1)		**B** Effect of Electronic Referral Outcome (2)		**C** Effect of (1)		Effect of (2)	
	β	t	β	t	β	t	β	t
Ordered tickets	0.09	5.99**	0.35	6.21**	0.038	1.34	0.23	2.08*
Total time online	892.68	21.28**	4035.29	30.74**	-74.77	-1.12	4276.8	16.9**
Total number of logins	1.88	15.13**	8.63	20.25**	-0.27	-1.24	9.51	11.6**
Total amount of points	13.05	15.92**	60.32	21.81**	-2.22	-1.58	67.49	12.7**

    *   Parameters are significant at $p<0.05$ ** Parameters are significant at $p<0.0001$
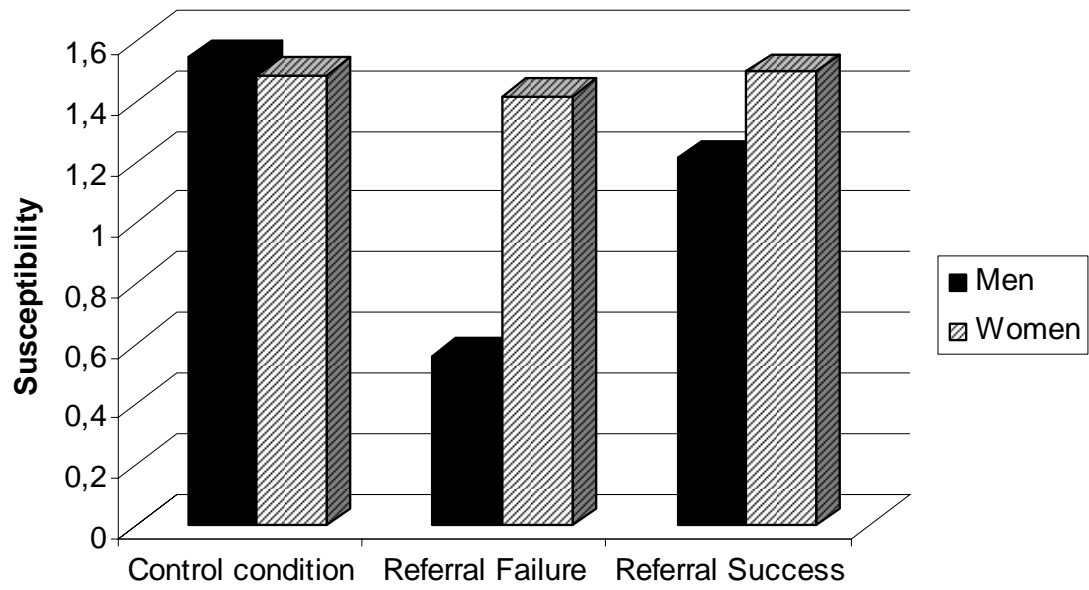
FIGURE 1

Susceptibility (0-3) as a function of referral outcome and gender, study 1.

FIGURE 2

Susceptibility (0-6) as a function of self-esteem and referral outcome, study 2.