

Relating Facebook to Consumer Behavior: Facebook Motivates to Purchase Experiential Products

Encountering a multitude of peers' news feed-posts about positively valenced activities evokes benign envy and results in a preference for purchasing experiential products over material products

MARTIJN HENDRIKS

August 15th, 2013



Relating Facebook to Consumer Behavior: Facebook Motivates to Purchase Experiential Products

Encountering a multitude of peers' news feed-posts about positively valenced activities evokes benign envy and results in a preference for purchasing experiential products over material products

MARTIJN HENDRIKS

272012

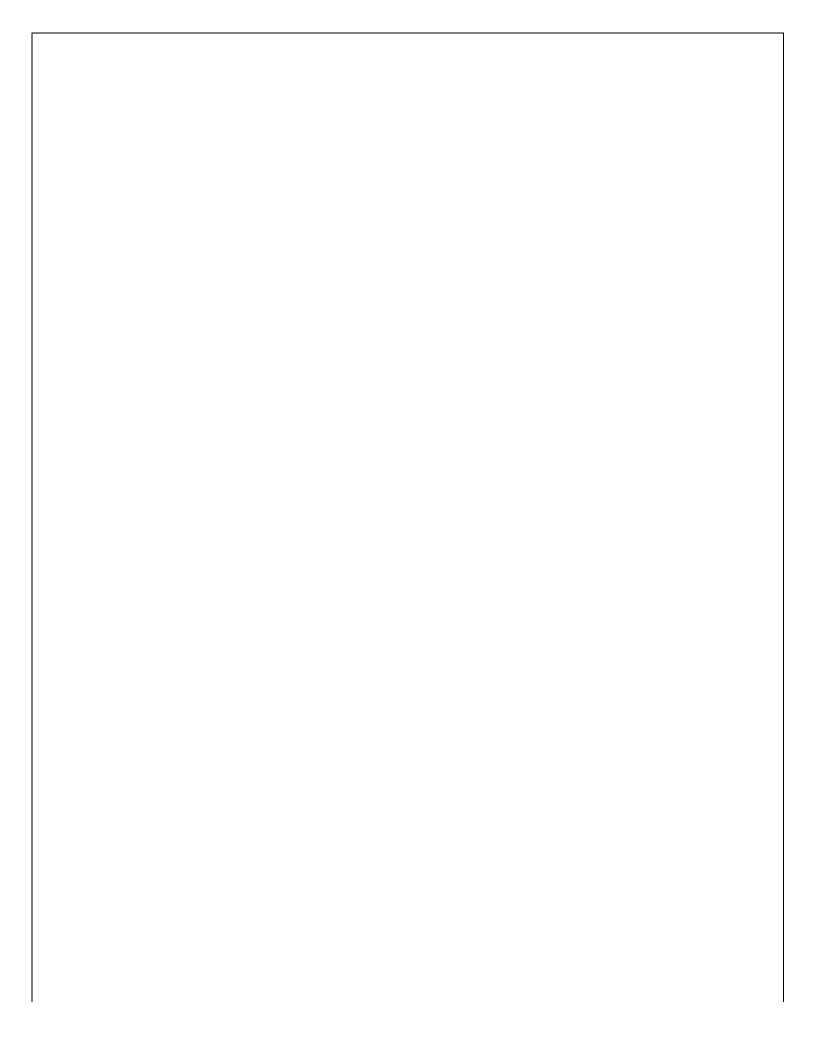
MASTER'S THESIS

August 15th, 2013

Research Master in Marketing Consumer Behavior Track

Marketing Department Faculty of Economics and Business Administration Tilburg University

Master's Thesis Supervisor:Dr. Elaine Chan(Tilburg University, marketing department)Master's Thesis Co-Reader:Dr. Barbara Briers(Tilburg University, marketing department)



ABSTRACT

Facebook has become an integrated part of life for over a billion consumers. Yet, little is known about the effect of Facebook on consumer behavior. This thesis addresses this literature gap by showing that passive browsers of the Facebook-news feed develop an increased preference for experiential purchases over material purchases when they focus on close friends. Three lab studies explore the mechanism causing the preference of this particular group of news feed browsers. Consumers are shown to use the news feed frequently for positive self-presentation by posting about positively valenced activities they have experienced. Encountering this type of social information leads to benign envy towards Facebook-friends in the domain of experienced activities. The evoked benign envy is argued to be the key motivator for consumers to purchase more experiential products in order to experience more positive activities oneself. However, a mediation effect is not found. The main findings have implications for marketing- and social media policy.

Keywords - Facebook, experiential purchases, self-presentation, upward social comparison benign envy, experienced activities, tie strength focus, news feed participation.

PREFACE

Happiness literature suggests that a good way to boost happiness for others as well as oneself is to show gratitude regularly. This preface fits in with this goal and is written to express gratitude to a selection of people who played a vital role in my development over the years. First and foremost I want to thank my parents for their unconditional support (not only financial) and interest in my development over the years. My close friends deserve a ponderous portion of gratitude as well since they were always understanding when I had to tell them, again, that I could not join in for a fun activity because of upcoming deadlines. I would like to thank Elke Schrover for the discussions and projects we completed together on a daily basis in the past two years. I owe Dr. Cedric Stalpers a special 'thank you'; he inspired me to subscribe for the Research Master in Marketing. Dr. Prof. Rik Pieters was an inspiration to me during the Master program that started off with an interesting internship. I would like to thank all members of the Consumer Club for the fruitful discussions; those discussions were crucial in my development.

There are a few persons who I want to thank especially for bringing my Masters' Thesis to a higher level. I am grateful to my supervisor, Elaine Chan, for challenging me and giving useful advice in the Masters' Thesis process. Alejandra Pereda Kappner deserves a big portion of gratitude for her support and motivating comments when I needed it the most. I also want to thank Koen Lavrijssen and Martijn De Kok for being raters in the pilot study.

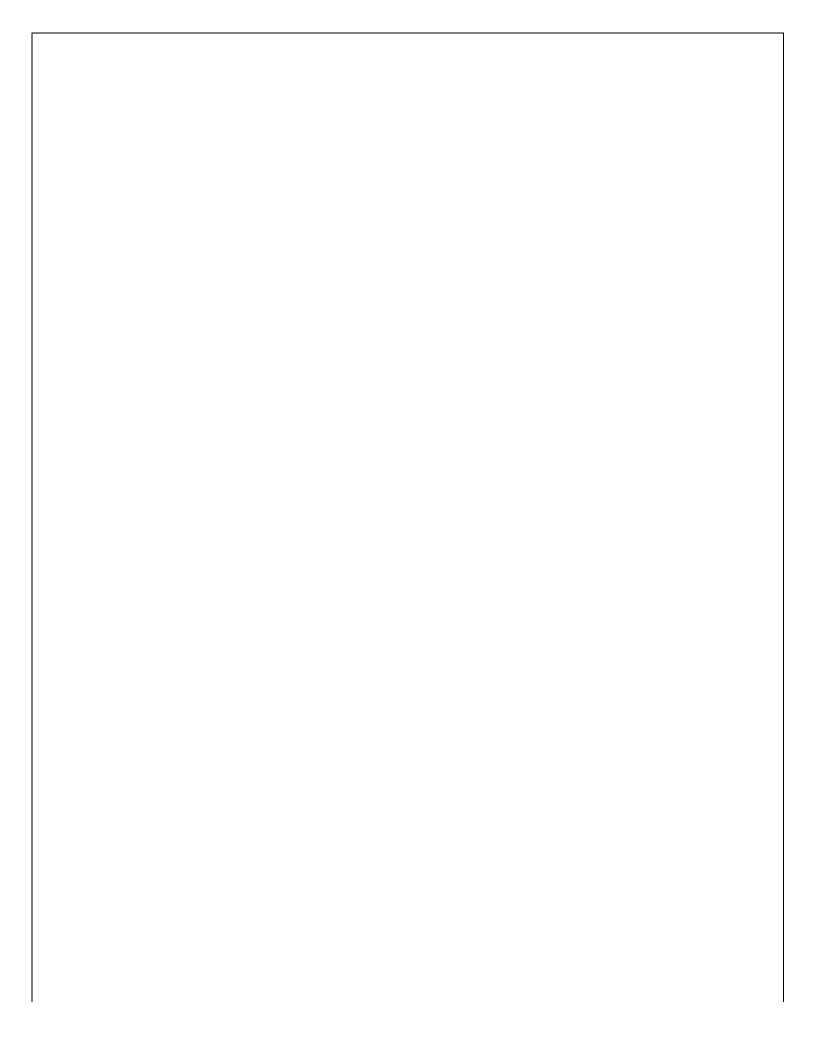
I can be 'a happy man' and start a working career that I wished for the most thanks to the support all these individuals gave me in recent years. I hope you will have an interesting read and I hope that this thesis elicits some creative thoughts on the matter in you as a reader.

Martijn Hendriks

August 8th, 2013

TABLE OF CONTENTS

Chapter 1: Introduction	
1.1 Problem Background	1
1.2 Problem Statement and Research Questions	2
1.3 Conceptual Framework and Definitions	3
1.4 Academic Relevance	4
1.5 Practical Relevance	5
1.6 Study Boundaries	6
1.7 Structure of the Thesis	6
Chapter 2: Content Analysis	7
2.1 Self-Presentation	7
2.2 Self-Presentation on Facebook	7
2.2.1 Motivation for Self-Presentation on Facebook	7
2.2.2 Positive Self-Presentation Bias in the News Feed	8
2.2.3 Fashion of Self-Presentation in the News Feed	9
2.3 Pilot Study	
2.3.1 Method	
2.3.2 Results	
2.3.3 Discussion	
Chapter 3: Theoretical Framework	
3.1 News Feed Participation and the Role of Tie Strength	
3.2 Preference for Experiential Purchases	
3.3 Causal Mechanism	
3.3.1 Estimations of Peer's Positive Experiences	
3.3.2 Benign Envy	
Chapter 4: Empirical Studies	
4.1 Study 1	
4.1.1 Method	
4.1.2 Results	
4.1.3 Discussion	
4.2 Study 2	
4.2.1 Method	
4.2.2 Results	
4.2.3 Discussion	
Chapter 5: General Discussion	
5.1 Discussion	
5.2 Limitations and Future Research	
5.3 Implications	
References	
Appendices	47



CHAPTER 1: INTRODUCTION

1.1 | Problem Background

Facebook has become globally accessible only eight years ago and already has over one billion subscribers (Smith, Segall, and Cowley, 2012). A new fashion to acquire social information is introduced by Facebook. The online social network enables individuals to obtain a multitude of social information, posted by a variety of Facebook-friends¹, in a short period of time. Especially the highly browsed Facebook-feature called the 'news feed' allows one to acquire up-to-date social information of Facebook-friends (Pempek, Yermolayeva, and Calvert, 2009). Namely, the Facebook news feed is a constantly updating list of status updates, photos, videos, and links posted by people in one's personal online network. In a few minutes of news feed browsing, one might have seen a friend posting pictures of a night out; another friend announcing the assignment to a lucrative job; a third friend revealing to have had a nice day in an entertainment park; and many more posts. Note that these three examples of posts encompass a positive content. This represents reality accurately as Denti et al. (2012) show posts in the news feed to be geared towards positive occurrences in life. The argued reason is that people use Facebook to present themselves favorably to others (e.g., Qiu, Lin, Leung, and Tov, 2012).

Interestingly, the considerable amount of positively geared social information one encounters on Facebook has the ability to affect people's emotional states (e.g., 'envy' in Krasnova, Wenninger, Widjaja, and Buxmann, 2013), cognitive states (e.g., 'judging others to be happier' in Chou and Edge, 2012), and behavioral tendencies (e.g., 'self-control' in Wilcox and Stephen, 2013). Not each fashion of news feed browsing has the same effect however. Especially browsers who do not post content oneself (i.e., passive browsers) are affected by the posts of peers since they are particularly focused on social information provided by peers. Conversely, browsers participating actively by posting content (i.e., active browsers) focus more on selectively presenting themselves in a positive fashion. They gain benefits of presenting themselves favorably, for instance a rise in self-esteem, and are less affected by what others post (Gonzales and Hancock, 2011). Wilcox and Stephen (2013) argue that both types of Facebook participation affect the browser when the focus is on strong ties (i.e., close friends), but not when the focus is on weak ties (i.e., distant friends). As an explanation, close friends commonly belong

¹ Facebook-friends are people added by the person to his/her personal Facebook-network. It mainly includes friends, family, and acquaintances.

to your reference group in contrast to distant friends. Therefore, you care more about what close friends experience and how they evaluate your actions as compared to weak ties.

An innovative pilot study in this thesis shows that people post in the news feed particularly about positively valenced activities they have experienced, or are about to experience, such as holidays and festivals. In contrast, self-presentation by obtained possessions is a less used fashion of self-presentation in the news feed. The positive word-of-mouth regarding positively valenced activities may activate a desire to purchase products that enable the experience of a favorable activity. These purchases are called experiential purchases and contrast materialistic purchases which serve the acquisition of a possession. Examples are respectively a post about being in a concert, which requires the (experiential) purchase of a concert ticket, and a post about one's new shoes requiring the purchase of the materialistic product 'shoes'.

Thus, an interesting relationship between Facebook and consumer behavior may be disclosed as a result of browsing the news feed. The main purpose of this thesis is to examine whether encountering a multitude of posts on positively valenced activities leads to a stronger preference to purchase experiential products. A proposed underlying mechanism is that encountering positive posts of peers about positively valenced activities leads to upward social comparisons because browsers get the impression that their peers experience more positive events such as nicer dinners, breathtaking holidays, and the coolest parties. This impression might subsequently lead to benignly envious feelings towards the persons who posted those positive activities (Krasnova et al., 2013). Consequently, benign envy in the domain of experienced activities induces a preference to purchase experiential products oneself.

1.2 Problem Statement and Research Questions

Following the main aim of this study, the problem statement of this thesis is: Does news feed participation moderated by tie strength focus influence consumers' preference for purchasing experiential products over material products and what is the underlying process?

Five research questions are formulated to provide aid in answering the problem statement:

1. How do individuals present themselves in the news feed?

- 2. How does the degree of participation influence social effects of news feed browsing?
- 3. What is the influence of tie strength focus on the social effects of news feed participation?

- 4. What is the effect of news feed participation moderated by tie strength focus on the preference to purchase experiential products over material products?
- 5. What is the underlying mechanism?

1.3 Conceptual Framework and Definitions

This thesis aspires to explore whether the presumed process, as visualized in the conceptual framework (figure 1), finds theoretical and empirical support.

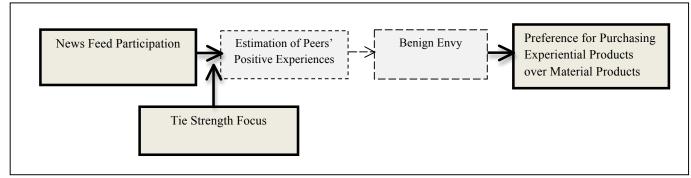


Figure 1: Conceptual framework

The constructs in the conceptual model are clarified next:

News Feed Participation: Two levels are distinguished regarding the activities news feed browsers perform during a browsing episode. At first, active news feed participation refers to an occasion of news feed browsing in which the browser contributes at least one form of content to the news feed. These forms of content comprise a status update, a public message directed to a particular person, sharing pictures/videos/links, and commenting on other peoples' posts. Passive news feed participation refers to an occasion of news feed browsing in which the browser does not contribute these forms of content to the news feed.

Tie Strength Focus: Wilcox and Stephen (2013, p. 91) proposed, based on Granovetter (1973), that "tie strength captures the degree to which one is more or less involved in a given social relation, feels close to that person, and values that relation." Literature addressing tie strength commonly distinguishes strong ties of weak ties. Ryu and Feick (2007) note that strong ties are typically friends with whom people share a personal connection, whereas weak ties are acquaintances with whom people have more distant relationships.

Estimations of Peers' Positive Experiences: This construct represents the estimated frequency to which one's peers have experienced events in a given period of time that are normatively seen as

favorable to experience. Two examples of events, borrowed from Jordan et al. (2011), are 'attending a fun party', and 'having a great meal'.

Benign Envy: Van der Ven, Zeelenberg, and Pieters (2009) describe benign envy as a form of envy in which an upward social comparison towards a peer leads to an unpleasant feeling although one simultaneously evaluates the advantage of the other to be deserved.

Preference for Purchasing Experiential Products over Material Products: Experiential purchases are "those made with the primary intention of acquiring a life experience" (Van Boven and Gilovich, 2003, p.1194), such as purchasing a ticket to the theater. Material purchases are "those made with the primary intention of acquiring a material good: a tangible object that is kept in one's possession" (p.1194). An example is the purchase of a 'watch'.

1.4 Academic Relevance

The average person subscribed to Facebook browses Facebook on average 26 minutes a day and logs on more than four times a day (Junco, 2013). Facebook even passed Google to become the most visited website in the United States (Dougherty, 2010). The integration of Facebook in daily life changed the way people relate to one another. Therefore, Wilson, Gosling, and Graham (2012) posited that the social effects of Facebook browsing are a topic worthy of study by the social sciences in its own right. Yet, Wilcox and Stephen (2013) conclude that a systematic understanding remains elusive on how browsing online social networks impacts cognitive states, affective states, and behavior. Hence, Facebook-literature is still in its infancy stage. Accordingly, Facebook browsing is only recently related by Wilcox and Stephen (2013) to current consumer behavior problems (higher body mass, more credit card debt, and a preference to eat unhealthy snacks), while it has the potential to affect over a billion peoples' consumer behavior. This thesis extends this relationship by assessing an additional effect of news feed browsing on consumer behavior. The main contribution of this thesis is examining whether news feed browsing causes a stronger preference to purchase experiential products over material products. This causal relationship is interesting since purchasing experiential products instead of material products is related to several positive effects on individuals such as higher consumer well-being (e.g., Van Boven and Gilovich, 2003; Nicolao, Irwin, and Goodman, 2009).

An additional contribution is the initiation of a content analysis regarding news feed posts. It reveals trends in positive self-presentation that were not explored before. In addition, the finding

of Krasnova et al. (2013) that Facebook browsing evokes envious feelings is extended by inspecting whether Facebook browsing mainly results in benign envy or malicious $envy^2$. Taking this one step further, potential implications of the evoked envy by the news feed are addressed.

1.5 | Practical Relevance

Multiple parties can benefit from this research. Companies selling experiential products benefit of Facebook in case consumers are found to have an increased preference for experiential products after browsing the news feed. Namely, these companies can develop strategies to translate the evoked preference into more sales or brand awareness. For instance, strategies can be developed to stimulate consumers to explicitly mention the brand name when they post about their experienced activity. Another example to become more visible in the news feed is an advertising campaign in which you can win an appealing product if you 'like' the page of a certain brand in the news feed.

Furthermore, this thesis helps managers of Facebook[™] understand how envy is elicited by news feed browsing. This knowledge is useful in attempting to diminish negative effects of news feed browsing in order to increase customer satisfaction. This is a relevant issue for Facebook as Baumer et al. (2013) observed that more than one-third of their sample had temporarily deactivated their Facebook accounts in the past. This was mostly done because of frustrating experiences. Features that stimulate active Facebook browsing can be implemented to reduce the envious feelings which especially passive browsers focused on strong ties are presumed to experience. Another strategy may be to encourage passive browsers to focus on weaker ties. Additionally, the management of Facebook[™] gains new insights regarding self-presentation strategies of people in the news feed. Facebook-designers can optimize the opportunities of self-presentation on Facebook. For instance by implementing a news-feed feature that enables people to publicly list what activities they have participated in or will participate in.

Consumers gain indirectly of the improved knowledge Facebook has in case Facebook optimizes their features to enable better consumer satisfaction. Consumers also gain directly by attaining a better understanding of how Facebook affects their lives. For instance, consumers can make a trade-off whether the desire to attain social information weighs positively against the evoked envious feelings. This aids them in deciding whether and how to use the news feed.

² Malicious envy is distinguished of benign envy by e.g., Van der Ven, Zeelenberg, and Pieters (2009). Malicious envy is an unpleasant feeling caused by an upward social comparison in which one judges that the other did not deserve the advantage.

1.6 Study Boundaries

A first boundary of this thesis is the mere focus on short-term effects of news feed browsing. This means that this thesis particularly reveals the visceral impulses provoked by browsing the news feed (see e.g., Loewenstein, 1996). Nevertheless, there may be enduring effects of frequent news feed browsing. For instance, people may assign a more important role to experienced activities in defining status and self-worth.

At second, prior Facebook-literature focused principally on western teenagers and students since they used to be the primary group using Facebook. This thesis conforms to this focus as crucial insights are borrowed from this literature stream. Yet, Facebook has become increasingly popular among non-Western cultures and adults in recent years. Denti et al. (2012) show that adults have different experiences and consumption styles related to Facebook. They post more about bad feelings and everyday events than younger generations and may therefore be differently affected by Facebook. Moreover, several studies have argued for the importance of cultural differences (e.g., Karl, Peluchette, and Schlagel, 2010)

Third, relating to the dependent variable, products are commonly not purely experiential or purely materialistic. For instance buying a DVD can be seen as a materialistic product (the DVD itself) or an experience (watching the movie). The products incorporated in this thesis are products that prior literature has classified as either a materialistic product or an experiential product. (Van Boven and Gilovich, 2003; Howell, Plechin, and Iyer, 2012). Products of these papers are only adopted when it is clear that the majority of customers purchase the product either for the goal of possessing it or for the goal of gaining a positive experience by consuming the product.

1.7 | Structure of the Thesis

The conceptual framework is theoretically and empirically examined in the remainder of this thesis. Chapter 2 discusses a content analysis regarding the news feed where the conceptual framework draws upon. Chapter 3 develops the conceptual framework by an in-depth literature review. Chapter 4 tests by means of two lab experiments the hypotheses formed concerning the conceptual framework. The general discussion, comprising of conclusions, implications, limitations, and avenues for future research, is the topic of chapter 5.

CHAPTER 2: CONTENT ANALYSIS

An improved understanding of how news feed browsing affects people can be obtained by examining what type of content people encounter during their news feed-browsing episodes. A pilot study is conducted to assess the content in the news feed empirically.

2.1 Self-Presentation

Human beings are naturally inclined to communicate. Principal motives for communication are building social relationships, allocating resources and information, and developing a positive identity (Rubin, Perse, and Barbato, 1988). These motives serve several principal needs in life such as the needs for self-worth and affiliation. People have an ongoing interest in optimizing how others perceive and evaluate them to satisfy these needs (e.g., Goffman, 1959; Benoit, 1997). The optimization process comprises of sending forth positive impressions of oneself and is called positive self-presentation (Leary, 1996). Examples of positive self-presentation are applicants wearing suits during an application talk to obtain their desired professional image and women wearing make-up in social settings to appear more attractive.

2.2 | Self-Presentation on Facebook

The prior paragraph delineates individuals to be constantly looking for possibilities to present themselves favorably. It will next be illustrated that online social networks, and more specifically the Facebook-news feed, are helpful tools in this regard.

2.2.1 Motivation for Self-Presentation on Facebook

Facebook is an online social network initiated to aid communication and to complement faceto-face interactions. Several other options are available in our society for private (e.g., e-mail and phones) and public communication (e.g., television). Nevertheless, online social networks are the first communication instruments that enable individuals to express an extensive number of characteristics by which they want to be known for, in a time-efficient way, to a big part of their social network (Ellison, 2007). One can for instance upload holiday pictures to Facebook in a split second and automatically share them with one's complete online social network. In addition, people have the opportunity to express a range of personal characteristics on Facebook. This ranges from one's relationship status to one's religious affinity and from holiday pictures to one's momentarily emotion. Multiple features are available on Facebook to publicly express one's identity to peers such as personal profiles and the news feed. Pempek et al. (2009) observed that more than half of the participants in their survey indicated to have publicly shared in their personal profiles what their favorite movies, music, books, hobbies, and so forth are. The participants indicated that the main reason for sharing social information on Facebook is 'to express who I am'. Likewise, the popularity of the news feed draws upon the updates people provide about their lives to the people in their online social network. The wide reach and the elaborate opportunities for self-presentation make Facebook an attractive medium for selfpresentation. It is plausible that Facebook has taken a rapid flight in subscribers since its worldwide introduction in 2006 given the ongoing interest of people to be positively perceived by others (Walther, 2007; Zhao, Grasmuck, and Martin, 2008).

Moreover, Facebook complements offline settings by providing people a platform in which they have more control over communicating their identity to others (Zywica and Danowski, 2008). McKenna, Green, and Gleason (2002) as well as Valkenburg, Schouten, and Peter (2005) show that the removal of obstructing personal characteristics in online settings such as stuttering, shyness, and physical unattractiveness enables disadvantaged people to durably bypass the usual obstacles that prevent them from constructing desired identities in face-to-face settings.

Building on these insights, several studies (e.g., Ellison, Steinfield, and Lampe, 2007; Joinson, 2008; Toma and Hancock, 2013) have posited that consumers present themselves to others on Facebook to aid in satisfying two primary motives: to enhance one's self-esteem/self-worth (unconscious motivation) and to foster social engagement (conscious motivation).

2.2.2 Positive Self-Presentation Bias in the News Feed

In general, people emphasize the desirable social cues that are part of their ideal selves, whereas undesirable parts of the true self remain hidden, to create a more positive identity (Higgins, 1987). Bargh, McKenna, and Fitzsimons (2002) delineate that people present themselves more by their desired selves in online settings compared to offline settings. Qiu et al. (2012) show that this holds for Facebook specifically as well. Participants in their first study indicated that they are more likely to present themselves by positive emotions on Facebook as compared to 'real life'; the opposite effect is found for negative emotions. In their second study, participants considered friends to express themselves as being happier, and as experiencing more

positive emotions and less negative emotions, on Facebook as compared to 'real life'. A study of Zywica and Danowski (2008) observed that several types of users (e.g., participants with low self-esteem and introverts) admitted to place items on Facebook to make themselves look more popular; for instance by editing one's personal profile in a favorable way. On account of these findings, it can be concluded that there is a positive self-presentation bias present on Facebook.

A Swedish research team (Denti et al., 2012) has included a specific question regarding the news feed in their survey. They asked participants what valence their status updates typically have. More than 77% of the 1011 participants indicated that their status updates typically have a positive valence. Although the question was general and based on a subjective judgment, it provides some initial indication that people typically share positively valenced information in the news feed. For example, scholars may post on the news feed when their paper is accepted by an A-journal; what they will not post is all the frustrations during the development of the paper.

2.2.3 Fashion of Self-Presentation in the News Feed

The news feed is typically used to update one's social network how one's life develops whereas personal profiles serve as a tool to inform others about more rigid characteristics such as place of residence, favorite movies, and so forth. In other words, since people already present in their profiles who they are, they often use the news feed to demonstrate what they experience. Zhang (2010), who is a data-science-intern of Facebook, initiated this line of reasoning. Regarding posts in the news feed, she states in an online report that "generally, people tend to talk about what they are (or should be) doing at a particular time of day. For example, words about sleep increase at night and peak in the early mornings, when people should actually be sleeping. Words about occupation and school are increased in the mornings (perhaps while we're on our way to work/school). Words about social processes and leisure are low during the mornings (when people are either in school or working), but they increase as the day goes on."³ This view is consistent with the indication of participants in the study of Denti et al. (2012) that most posts are about major or everyday events one experiences. To the author's knowledge, no studies besides Denti et al. (2012) and Zhang (2012) have addressed the explicit content in the news feed. This is surprising since Pempek et al. (2009, see table 6 on p. 234) as well as Wise,

³ Quote cited from: http://m.facebook.com/note.php?note_id=477517358858&_mn_=10&p=10

Alhabash, and Park (2010) show that most time one spends on Facebook deals with the passive consumption of information. Browsing the news feed is a prominent example in this regard.

Common ways to present oneself are (1) by objects one possesses, (2) events one has experienced, and (3) things one has achieved. Self-presentation can either be explicit (i.e., the object of self-presentation is the main focus) or implicit (i.e., the object is not the main focus). For example, showing people your newly bought clothes entails an explicit fashion of selfpresentation, whereas the clothes you wear in daily life involves an implicit fashion of selfpresentation. Sharing content in the news feed is an explicit manner of providing social information. Van Boven, Campbell, and Gilovich (2010) demonstrated, with the help of five lab experiments, that explicitly expressing experienced activities is a more accepted fashion of selfpresentation than explicitly expressing bought/possessed luxurious products. They conclude that materialism is stigmatized as an undesirable personality trait and that materialistic people are seen as being relatively less likable. Their research was inspired by the finding of a national survey that 88% of the respondents indicated that Americans are too materialistic (Center for a New American Dream, 2008). These insights make it plausible that people who explicitly express their materialism in the news feed are less liked. Possessions are more valuable for implicit self-presentation. In contrast, people who express what activities they have experienced are seen as less extrinsically motivated, relatively outgoing, and open-minded, and are therefore more liked by others (Frank, 1999; Fromm, 1976; Van Boven and Gilovich, 2003; cited by Van Boven et al. 2010). Therefore, it is expected that one uses the news feed not so much for presenting oneself by the materialistic products one possesses but very regular by one's experiences. Moreover, Walther, Van der Heide, Hamel, and Shulman (2009) find that people rely more on other-generated information (i.e., comments of others) than self-generated information (i.e., status updates) when forming impressions. The ability to publicly comment on others in the news feed might strengthen the preference to post about experienced activities rather than possessions since comments are likely to be more positive concerning posts about activities. The following hypotheses are formulated as a result of the discussed insights:

H1a: Posted content in the news feed has more frequently a positive valence than a negative valence.

H1b: Posted content in the news feed is more frequently about activities than about material products.

H1c: Posted content in the news feed about activities have more frequently a positive valence than a negative valence.

2.3 | PILOT STUDY

The pilot study empirically examines the content of news feed posts in terms of valence and category. It extends the findings of prior literature by segregating three focal categories of self-presentation in the news feed. The three distinguished categories are: (1) experienced activities, (2) material products (i.e., possessions), and (3) achievements. The frequency of posts in the first two categories is the main interest of this pilot study as the presumed conceptual framework draws upon this difference. The category 'achievements' is explicitly distinguished since it is an important self-presentation strategy of people and is thus likely to be frequently encountered in the news feed. This study addresses primary posts such as status updates but not secondary posts such as comments one encounters on primary posts. The content of posts in the news feed is both objectively (by two independent raters) as subjectively (by participants) classified in terms of valence and category in this pilot study. Previous research merely used subjective answers of respondents as an indication for self-presentation behavior on Facebook. However, Junco (2013) shows that self-reports of participants can be inaccurate regarding Facebook usage. He found for instance that participants indicated to be 145 minutes a day on Facebook, while software monitoring indicated an average of only 26 minutes per day.

2.3.1 Method

Fifty-one participants ($M_{age} = 22.1$; 30 males) completed a pen and paper study. Participants were instructed to describe, in detail, the content of the upper five posts in their personal news feed. Two questions regarding the content of news feed-posts were asked to participants on the next page. In the first question, participants were asked to indicate "what the tone of each post is" on a five-point scale with a neutral midpoint (1 = very negative; 5 = very positive). In the second question, they were asked to categorize the main focus of each post in one of four categories as is depicted in the first row of table 1. The second row in table 1 shows the accompanying examples participants received of each category to foster the accuracy of their categorization. When choosing the option 'Something Else', participants were instructed to indicate subsequently in which of six subcategories the post could then be classified in best. The six subcategories were: informative-focused, a request or question, inspiring-focused, funny-focused, complaining about something, or, still none of these options. This follow-up categorization assesses whether essential categories in the content-analysis are overlooked by

focusing on the three presumed main categories. Participants were debriefed after answering some demographic questions.

	That person	An achievement or accomplished	An activity that person has	Something Else
	buying/selling/possessing/receiving a	goal by that person	done, is doing, or will do	
	material product			
ĺ	e.g., clothes, a car, or a television one	e.g., a high grade in school or	e.g., a holiday or a night out	
	has bought or consumed	winning a sports match		

Table 1. Categories to classify news feed content

In addition, two independent raters objectively classified the content posted on Facebook by filling out the identical valence- and categorization questions as the participants did. They were able to classify the posts on basis of the detailed descriptions participants had written down. It was elaborately discussed with the raters what the boundaries of the categories were to optimize the classifications. A third rater was asked to classify posts where the two raters did not mutually agree on in order to reach a general agreement for each post regarding the category where the posts belong to⁴. The third rater could not distinguish in the 'Something Else' category between the six subcategories because of her time constraints.

2.3.2 | Results

Inter-rater agreement. First, the inter-rater reliability (IRR) was assessed to enable valid claims about the objective categorization of posted content. Cohen's (1960) kappa and related kappa variants are commonly used for assessing the IRR of categorical variables. Cohen's κ for the 4-category-classification is .64 (p = .000). Cohen's κ for the 5-point valence measure is .60 (p = .000). Hallgren (2012) suggests the use of Landis and Koch's (1977) well-used guideline for interpreting kappa values. Their guideline indicates that values between .6 and .8 show substantial agreement and the categorized data are therefore suitable for further analysis.

Valence of posts. Table 2 demonstrates that rater 1, rater 2, as well as the respondents indicate posts in the news feed to encompass a positive valence in general. One sample t-tests reveal that the valence is rated as significantly more positive on average than the neutral midpoint by rater 1 (t(254) = 9.91; p < .001), rater 2 (t(254) = 10.91; p < .001), and the respondents (t(254) = 11.10; p < .001). The exact percentages are depicted in appendix A.1.

⁴ All raters were lab instructors. Rater 1 was Martijn De Kok; Rater 2 was Koen Lavrijssen; Rater 3 was Elke Schrover. The third rater was aware of the goal of the experiment but declared to rate as if being blind to this goal.

N= 255	Valence-judgment Rater 1	Valence-judgment Rater 2	Valence-judgment Respondents
Mean*	3.42	3.44	3.78
SD	0.68	0.65	1.13
Mode	4.00	4.00	4.00/5.00

Table 2. Valence-judgments of news feed posts

* 1 = very negative, 2=negative, 3=neutral, 4=positive, 5=very positive

Categorical distribution of posts. The frequencies to which posts are classified in the distinct categories are presented in table 3 and graphically depicted in appendix A.2. The objective raters classified more news feed content as posts on activities (28.1%) than as posts on materialistic products (3.9%) and posts on achievements (9%). A Simple Chi-Square test shows that these differences are significant ($\chi^2(2, N = 105) = 61.09$; p < .001). The same pattern emerged for

the evaluations of respondents; 33.6% was classified as activities, 8.6% as materialistic products, and 15.2% as achievements. These differences were statistically significant as well $(\chi^2(2, N = 147) = 44.86; p < .001)$.

Valence of activity-posts. Both raters and respondents indicate that the valence of posts on activities have a positive valence on average ($M_{judgmentRespondents} = 3.91$;

 $M_{judgmentRater1}$ = 3.67; $M_{judgmentRater2}$ = 3.71). One sample t-tests indicate that the valence is

more positive than the neutral midpoint according to rater 1 (t(51) = 8.30; p < .001), rater 2 (t(76) = 11.22; p < .001), and the respondents (t(86) = 8.51; p < .001). The valence of posts on activities is graphically depicted in appendix A.3.

	<i>Independent Raters</i> Frequency Percentage		Respondents Frequency Percentage	
Material Product	10	3.9%	22	8.6%
Achievement	23	9.0%	39	15.3%
Activity	72	28.2%	87	33.7%
Informative-focused	150 in total	58.8%	26	10.2%
A request or question			19	7.5%
Inspiring-focused			8	3.1%
Funny-focused			26	10.2%
Complaining about something			9	3.5%

Table 3. Categorical distribution of news feed-posts

None of these options207.9%				
	None of these options		20	

2.3.3 Discussion

The exploratory pilot study provides empirical evidence for the line of reasoning in chapter 2. Posts in the news feed are observed to be mainly positively valenced, supporting hypothesis 1a. Hypothesis 1b is supported since both objective as subjective raters classified significantly more post in the news feed as posts on activities than as posts on material products. Hypothesis 1c is supported since the posts in the news feed about activities were mainly positively valenced. In total, this pilot study confirms the assumption of the conceptual framework that most posts in the news feed are about activities that have a positive valence.

CHAPTER 3: CONCEPTUAL FRAMEWORK

Chapter 3 addresses how the presumed conceptual framework follows from theoretical insights. At first, two different types of news feed participation are discussed and interacted with two levels of tie strength focus. The presumed main causal relationship of interest in this thesis is discussed next. Subsequently, this chapter elaborates on a potential underlying process causing this effect. Hypotheses are formed based on the obtained theoretical insights.

3.1 News Feed Participation and the Moderating Role of Tie Strength

Self-presentation is driven by the goal to be evaluated more favorably by others and oneself (Leary, 1996). The degree to which a person desires to present oneself depends on personality traits and the strength of particular needs. This explains why there are people who actively participate on the internet by posting content on a daily basis, whereas others prefer to participate in a passive fashion. For instance, individuals with a high need for affiliation tend to make use of more opportunities to present themselves than individuals with lower needs for affiliation (Leary and Allen, 2011). Thereby, in particular narcissistic individuals and those having low self-esteem participate actively on Facebook (Mehdizadeh, 2010). Persons who prefer to browse passively are commonly people who have a particular interest in broadening their horizons and in building a sense of connectedness (Koroleva, Krasnova, Veltri, and Günther, 2011).

Self-presentation can change the outcomes of people's lives (e.g., Baumeister, 1982). Accordingly, several studies demonstrate that psychological outcomes of Internet usage are a function of participation rate in terms of contributed content. Individuals who regularly contribute content to the internet experience more social support (McKenna, and Bargh, 1998; Burke, Marlow, and Lento, 2010; Ellison, Steinfield, and Lampe, 2011), less depression (Bessière, Kiesler, Kraut, and Boneva, 2008), and less envy (Krasnova et al., 2013), compared to passive followers. Therefore, Krasnova et al. (2013) recommend future studies in the domain of Facebook "to avoid combining different types of user activity into one general variable. Instead different types of user behavior should be integrated as independent constructs" (p. 12).

An explanation of McKenna and Bargh (1998) for the different psychological effects of these two internet-participation styles is that active participants commonly disclose desirable characteristics while browsing whereas passive browsers do not. Presenting desirable characteristics commonly evokes a more favorable evaluation about the person's identity in others. As a result, the presenter is more liked and accepted by others and obtains personal benefits in turn such as increased self-esteem and social support. These positive effects remain absent while browsing passively. Note that the positive effects of active participation would reverse into negative effects when the shared information is clearly untrue or evaluated as bragging. However, this commonly does not occur (Back et al., 2010).

Wilcox and Stephen (2013) offer a related reasoning to McKenna and Bargh specifically in the context of the news feed. They argue that people who are concerned about the image they are presenting to others focus mainly on their own contributed content and therefore on their own desired selves. Presenting one's desired self results in higher self-esteem as is demonstrated in their second study. The enhanced self-esteem can be explained by an enhanced feeling of selfworth resulting from the shared positive information about oneself. In contrast, passive browsers are particularly focused on social information posted by others in the news feed. They focus on social information of peers' desired selves but not so much on their own desired selves. Stephen and Wilcox observed that browsers focused on others experienced no increase in self-esteem after a browsing episode. Likewise, Gonzales and Hancock (2011) found that people who focus on their own profiles (self-focus) experience a rise in self-esteem, but self-esteem does not rise when one's own profile is viewed when one also views profiles of others.

Wilcox and Stephen (2013) observed that passive browsers are only affected by news feed

browsing when they are focused on strong ties (i.e., close friends). Namely, passive browsers are more involved with strong ties compared to weak ties (i.e., acquaintances) and therefore attend stronger to posts of close friends. Moreover, social identity theory suggests that an individual commonly uses peers whom one feels a close relation to as a reference group as they are more similar to the individual in terms of gender, age, culture, social status and so forth (e.g., Tajfel, 2010). Relatedly, people typically compare themselves to others in domains that are relevant to their self-view (Smith and Kim, 2007). Close friends are typically more similar and are engaged in more similar domains in life than distant friends since one typically likes people with similar interests more than people with dissimilar interests. The higher degree of comparison allows strong ties to have a larger influence on people than weak ties (Brown and Reingen, 1987).

Interestingly, active browsers are also more influenced by strong ties than by weak ties. Individuals tend to be more concerned about the image they present to strong ties (Sudman, Bickart, Blair, and Menon, 1994). Moreover, they are more sensitive to disclosing negative aspects of themselves to strong ties than to weak ties (Bargh, McKenna, and Fitzsimons, 2002). Hence, individuals care more about presenting themselves favorably to strong ties than to weak ties since they are more concerned about the opinion of strong ties (Wilcox and Stephen, 2013).

On account of these findings, it is presumed that typically strong ties have the ability to affect both active participants as passive participants of the news feed.

3.2 | Preference for Experiential Purchases

Self-presentation goals of individuals are a primary driver of daily consumer behavior. An underlying concern in selecting daily purchases as clothes, hairstyles, and food brands, and in selecting occasional purchases as holidays and cars, is to impress others. Material and experiential products are acquired to make one's identity more tangible (Dittmar and Pepper, 1992). The selected products are influenced by the social norm of one's reference group. Often, products and brands that are self-relevant and communicate a given identity are chosen to present oneself (Thompson and Hirschman, 1995). For instance, sports fans buy a jersey of their local team to demonstrate that the team is part of their identity.

Schau and Gilly (2003) illustrate that the motivation to impress others by the products one consumes is present in online settings as well. That is, people are eager to make use of the opportunity offered by the Internet to associate themselves with products and brands without

directly consuming the product itself. For instance, people write reviews of products they like or dislike on blogs and list the brands they like in their personal profiles on Facebook. This form of online word-of-mouth communication is shown to have the potential to affect sales considerably (e.g., Godes and Mayzlin, 2004; Chevalier and Mayzlin, 2006). Specifically, Stephen and Galak (2012) found that socially earned media attention (e.g., posts in social media about certain brands or products) affects preferences of persons encountering this information even more than paid advertising does. These researchers conclude that information from a social source (e.g., through an online community) is more influential in shifting consumers' opinions than traditional advertising and may, ultimately, trigger purchasing behavior. Likewise, Goel et al. (2011) argue that social earned media is more effective than traditional earned media as an early-stage indicator (e.g., in showing consumers what is popular and hence in setting a social norm).

Social media such as Facebook provides excellent opportunities for online word-of-mouth communication. For instance, individuals can indicate in their personal profiles what brands, movies, books, and so forth, they like. More importantly, people can post pictures, messages, and so forth, in the news feed to show what they have experienced. Individuals present themselves mainly by their experienced (and upcoming) activities in the highly browsed news feed as is observed in the pilot study. The purchase of an experiential product is generally required to take part in activities (Van Boven and Gilovich, 2003). Examples are booking a flight ticket to go on holiday and buying a ticket to enter a festival. The positive posts about activities in the news feed serve indirectly as positive worth-of-mouth for the purchase of experiential products that enable people to experience those activities. Consequently, an increased preference for experiential purchases might be developed in individuals encountering the news feed.

Passive browsers are particularly focused on word-of-mouth communication provided by others and are therefore expected to be more influenced by positive word-of-mouth than active browsers. This is especially the case for those focused on strong ties as people particularly care about the opinion of strong ties but less so about the opinion of weak ties (Gonzales and Hancock, 2011; Wilcox and Stephen, 2013). Active browsers are less affected by the word-of-mouth others provide since they are less focused on social information provided by others. They might however prefer experiential purchases to a larger extent as well since they can present themselves more favorably by posting about these experiential purchases (McKenna and Bargh, 1998). On the other hand, the needs driving positive self-presentation are already temporarily

fulfilled given that active browsers posted content during the browsing episode to satisfy these needs. Drive reduction theory (and related behavioral theories such as self-determination theory) suggest that these browsers feel fewer urges for future positive self-presentation as a result (Hull, 1943; Deci and Ryan, 1987). Thus, whereas browsers who typically post about their experienced activities in the news feed benefit more from experiential purchases and may therefore desire them more, they experience a dip in this desire straight after a browsing episode because the needs are satisfied. Active browsers focused on weak ties might have satisfied their needs less than active browsers focused on strong ties because they care less about self-presentation towards weak ties (Sudman et al., 1994). Consequently, they might not have lowered their urge for positive self-presentation to purchase experiential purchases. Conversely, they might feel that it is less important to purchase experiential purchases to present oneself favorably in the news feed since they care less about others' opinions. Thus, the direction of the effect of tie strength focus concerning active browsers is uncertain yet. Hence, no differences are foreseen. On account of the discussion, hypothesis 2 is formulated.

H2: Under passive news feed participation, a focus on strong ties results in a stronger preference for experiential purchases over material purchases than a focus on weak ties does, whereas this preference does not differ under active news feed participation.

3.3 | Causal Mechanism

A two-step potential mechanism through which the main effect may operate is discussed next.

3.2.1 | Estimations of peers' positive experiences

Human beings have a natural drive to assess how good they are doing on a continuum of abilities, experiences, possessions, and so forth (Festinger, 1954). For this purpose, social information provided by our peers is compared to our own characteristics. The obtained social information defines the social norms that we aspire to live up to. Social norms do not always represent reality accurately (Jordan et al., 2011). Jordan and colleagues reasoned that people can observe peers' experiences only directly in social settings, whereas they can observe their own experiences across all settings. This leads to biased norms since individuals typically experience less negative emotions in social settings compared to solitary settings. Besides, negative emotions are often suppressed and not shared afterwards when those negative emotions do

appear in social settings. Consequently, people develop a feeling that peers experience less negative emotional events in life as is revealed by Jordan et al. (2013).

Facebook offers people access to more social information in a peer-dominated environment to compare themselves to than was ever possible before (Denti et al. 2012). The social information is particularly based on positive experiences. This leads to an upward shift in the social norm of happiness and excitement in life (Chou and Edge, 2012). This norm is for most people not realistic to reach in reality and might therefore have adverse effects such as envy and depression (Bessière et al., 2008). In offline settings, individuals typically express themselves by positive events as well. However, in offline settings, social information is encountered of a smaller number of people in a few minutes time as compared to the news feed setting. No change in social norm is likely to occur when one person or a select group of people tells you about their positively valenced experiences. You would probably evaluate this information as inspiring or joyful. This fashion of communication commonly occurs in face-to-face settings. Imagine however that twenty people in a face-to-face setting all tell you in a few minutes time what kind of positively valenced experience they recently had. It would probably make you re-evaluate the fashion in which you live your own life and it would shift your social norm. A similar mechanism occurs when browsing the news feed. People encounter an overload of favorable social information of a variety of peers. Consequently, Facebook browsing leads an individual to believe that others are happier than the browser is oneself (Chou and Edge, 2012). Akin to the findings of Jordan et al. (2012), the social norm to which positive events are experienced might change upwards for individuals as a result of all posts on positively valenced experiences.

The social norm of the degree to which one experiences positive activities is likely to be changed in particular for passive browsers for two reasons. Passive browsers are typically focused on posted content by peers and thus pay more attention to encountered social information of their peers. Passive browsers focused on strong ties are especially affected because one typically processes the information obtained of strong ties (Brown and Reingen, 1987). Information provided by weak ties has less potential to affect the social norm of experienced activities since weak ties often not belong to one's reference group (Smith and Kim, 2007). Both active browsers focused on strong ties as those focused on weak ties are particularly concentrated on the information they provided themselves. Consequently, the posts of peers affect those browsers less. No different estimations of peers' positive experiences are expected

regarding active browsers since both groups are only to a low extent engaged in social comparison. On account of these findings, hypothesis 3 and 4 are formed:

H3: Under passive news feed participation, a focus on strong ties results in a higher estimated frequency of peers' positive experiences than a focus on weak ties does, whereas it does not differ under active news feed participation.

3.2.2 | Benign Envy

There are two types of social comparison. A comparison to a less advantaged peer in the comparison domain is called a downward social comparison, whereas the comparison to a more fortunate peer is called an upward social comparison (Wills, 1981). Positive self-presentation of others is likely to lead to upward social comparisons (Qiu et al., 2012). As such, the estimation that peers experience more positive events as a result of news feed browsing is an upward social comparison. Upward social comparisons typically elicit the negative emotion envy (Parrot and Smith, 1993). Along these lines, Krasnova et al. (2013) suggest that the upward social comparisons provoked by social information on Facebook lead to envious feelings. In their first study they find that almost 30% of the participants indicate envy to be the most important factor of frustration as a result of Facebook browsing. Their second study reveals a full mediation effect of envy on decreased life satisfaction as a result of passive Facebook browsing. Browsing the news feed provokes most envy in the domain of experienced activities since the largest portion of posts in the news feed are about activities.

The function of envious emotions is to provoke action tendencies that enable a more favorable social comparison (Keltner and Haidt, 1999). Van der Ven et al. (2009) distinguished two forms of envy (benign envy versus malicious envy) which provoke dissimilar action tendencies. Benign envy is experienced when one feels that the other deserved the positive state and when one feels to have control over reaching this state oneself. Malicious envy is experienced when one perceives that the other did not deserve the positive experience complemented by a perception of low control over improving oneself. Both malicious and benign envy are characterized by pain (Tai, Narayanan, and McAllister, 2012). It results in dissimilar actions tendencies however. Benign envy elicits a tendency to improve oneself on the particular domain, whereas malicious envy evokes action tendencies aimed at begrudging the other person. Thus, benign envy motivates to convert the higher estimations of positive activities

peers experience into experiencing more activities oneself. In contrast, malicious envy converts this judgment into degrading peers' activities or trying to do better in other domains. More benign envy than malicious envy is likely to be evoked by news feed browsing since people aim to post content that increases the extent to which others like them (Ellison, 2007). The goal to attain more social support will not be achieved if malicious envy would be commonly experienced by peers encountering your posts. In contrast, less social support will be achieved. Thus, it is likely that people typically experience positive consequences of posting content in the news feed given that people remain motivated to present themselves favorably in the news feed,.

Encountered social information that positively impresses you but which does not provoke a social comparison mainly results in the positive emotion 'admiration'. For instance, when a retired woman sees a student graduating she merely admires the achievement of the student but will not engage in social comparison. Admiration is a pleasant emotion which does not lead to a strong motivation to narrow the gap between oneself and the other (Van der Ven, Zeelenberg, and Pieters, 2011). When you evaluate a post of someone else as very undesirable, a feeling of resentment might be elicited without making an explicit social comparison. Resentment might also lead to a motivation to degrade the other. Thus, merely benign envy motivates people to do better in the same domain. In the specific context of this research, it translates into a preference for experiential purchases in order to experience more favorable activities.

Upward social comparisons are mostly experienced when one browses Facebook passively since one might feel inferior in social standing as one's own positive experiences are not salient (Gonzales and Hancock, 2011). Benign envy is elicited by a frustrating upward social comparison with typically someone you like and feel similar to. You want to remain close to that person and not risk a hostile relationship (Van der Ven et al., 2009). Therefore, passive browsers typically experience benign envy when seeing posts of strong ties and might consequently prefer to purchase experiential activities oneself. Passive browsers focused on weak ties read posts of people who are not part of their reference group. They perform less upward social comparisons and experience less envy as a result (Parrot and Smith, 1993). Active Facebook browsers experience less envy since they focus less on peers' posts (Wilcox and Stephen, 2013). This is especially the case for active browsers focused on weak ties since they compare themselves less to the encountered posts. Furthermore, active browsers focusing on strong ties experience more self-worth and self-esteem as a result of their active participation. Therefore, they make

relatively more downward social comparisons and less upward social comparisons compared to active browsers focused on weak ties. The two specific effects for active browsers with a weak tie focus and a strong tie focus are posited to cancel each other out. Taken these insights together, the following hypotheses are formulated:

H4: Under passive news feed participation, a focus on strong ties results in more benign envy than a focus on weak ties does, whereas benign envy does not differ under active news feed participation.

H5: The modified estimation of peers' positive experiences and benign envy sequentially mediate the relationship between news feed participation and the preference for experiential purchases over material purchases moderated by tie strength.

CHAPTER 4: EMPIRICAL STUDIES

Two studies are presented that jointly examine the conceptual framework. The first study tests whether the presumed mediating process is triggered⁵. Study 2 examines the validity of the complete conceptual framework. Gender is included as a covariate in analyzing the results because women are observed to be more influenced by media than men (Wood, 1994). Thereby, Karl et al. (2010) found that men are more extreme and self-promoting in their information sharing on Facebook compared to women.

4.1 | STUDY 1

Study 1 has a three-fold aim. The first aim is to examine the effect of news feed participation moderated by tie strength focus on the estimated frequency to which peers experience positive events in life. The second aim is to extend the finding of Krasnova et al. (2013) that envy is evoked by news feed browsing, by assessing whether passive news feed participation, as well as active news feed participation, evokes in particular benign envy or malicious envy. Additionally, the degree of provoked admiration and resentment are measured to assess to what extent people engage in upward social comparison resulting in envious feelings. Finally, the conclusions of the pilot study are extended. A comparison is made, regarding the frequency of posts on activities,

⁵ Study 1 had initially a different aim. Therefore, study 1 does not start with examining the main effect, which would have been the more logical and common way, but with exploring the underlying mechanism.

achievements, and materialistic products, between the news feed setting versus a face-to-face setting. A control condition is included to get an indication whether news feed browsing drives the estimations of peers' positive experiences upwards (e.g., a shift towards higher estimations than in regular settings) or downwards (e.g., a shift towards less experiential purchases) compared to real-life settings.

4.1.1 | Method

Participants and Design. Hundred-thirty-five Tilburg University undergraduates participated in a lab study ($M_{age} = 21.0$; 52% male) in exchange for seven euros. Participants were randomly assigned to one of four conditions in a 4-group (news feed browsing: passive when having a strong ties focus vs. passive when having a weak ties focus vs. active vs. none) between subjects design. The moderating influence of tie strength is only applied in the passive condition since this study had initially a different aim.

Procedure. The study was conducted in two ostensibly unrelated parts. The first part exposed participants to one of four manipulations and served to check whether this manipulation was successful. Following the procedure of Wilcox and Stephen (2013), participants in the no-news feed condition were instructed to browse the popular Dutch news website www.AD.nl for five minutes. These participants were asked not to browse any form of social media during the browsing task. Participants in the three news feed browsing conditions were instructed to log on to their personal Facebook accounts, and to subsequently browse the news feed for five minutes. They were instructed not to browse their own timeline. It was communicated to participants in the active news feed browsing condition that it would be highly appreciated if they actively participate on Facebook by posting at least one of the following forms of content in the news feed: a status update, a public message, or a comment to a post. In contrast, participants assigned to the 'passive strong ties focus' condition were instructed to avoid posting content on Facebook. Subsequently, following the tie strength manipulation procedure of Wilcox and Stephen (2013, study 1), this group of passive participants were given a name listing task asking them to list the names of five Facebook-friends who they consider to be close friends. For each friend, they were then asked to indicate how much the person's opinion mattered to them (1 = "opinion does notmatter at all," 7 = "opinion matters a lot"). Participants assigned to the 'passive weak ties focus'

condition received an identical manipulation as the 'passive strong ties focus' condition, with the exception that "close friends" was replaced by "distant friends".

After finishing the 5-minute-browsing task, participants who browsed the news feed had to fill out several questions that served as manipulation checks. Participants had to indicate on a dichotomous yes/no scale whether they had posted any content on Facebook during these five minutes as a manipulation check for news feed participation. As a manipulation check for tie strength, participants filled out a three-item measure on a 7-point scale (1 = "strongly disagree," 7 = "strongly agree") examining how focused they were on close friends during the browsing task ("I thought about my close friends," "I thought about friends whose opinions matter," "I thought about friends who are influential to me"; $\alpha = .90$)

Then, all participants were asked to open the ostensibly unrelated second part of the experiment. At first, participants were asked to make estimations of the frequency to which peers experience certain positive and certain negative events to measure the first presumed mediator. This was operationalized by asking participants to "estimate the percentage (0%-100%) of fellow undergraduate students taking this survey who had had, sometime in the past 2 weeks, each of the following 10 experiences": Received a high grade, attended a fun party, participated in sports, went out with friends, and had a great meal Had a fight/argument, thought about enormous workload, was rejected by a boy/girl, received a low grade, thought about bad personal health habits,. The first five events are classified as positive experiences; the final five events are classified as negative experiences. This measure is adopted from Jordan et al. (2011). The main interest in this study is in testing the potential overestimation of experiencing positive events. Yet, testing the possible underestimation of negative events might provide additional insights in the process and negative experiences are therefore measured as well.

Subsequently, in relation to the five minute-browsing episode, participants in the three news feed browsing conditions had to indicate their agreement regarding the following statements "The Facebook-posts of others caused feelings of [benign envy], [malicious envy], [admiration], [resentment] in me towards those persons" on a 7-point scale (1 = 'not at all', 7 = 'very much so') for all four emotions individually.

Finally, the content of Facebook-posts was examined concerning the five minute-browsing episode by asking participants in the three news feed browsing conditions to indicate for each of the three categories on a 5-point scale (1 = Never, 5 = All of the time) "To what extent did you

encounter Facebook-posts of others about" [material products] [achievements] [experiences]. A follow-up question using the same scale asked participants for each category "How would people present themselves favorably to others when there would be no social media?". Participants were thanked and debriefed after filling out some demographic questions.

4.1.2 Results

Sample. Three participants were excluded from analysis as they had no Facebook. Ten participants are excluded from analysis since they took less than 5 minutes to finish the first part of the experiment which made it improbable that they browsed the assigned website for at least five minutes. One participant was excluded for not understanding the instructions. Seven participants indicated not to have posted any content on Facebook while they were asked to post content, whereas two respondents indicated to have posted content while they were instructed not to do this. These respondents are therefore excluded from analysis. Consequently, the sample size is reduced to 114 participants.

Manipulation check. A marginal main effect of tie strength condition on the degree to which one focuses on close ties is found by a one-way ANCOVA⁶ (F (2,80) = 2.38, p < .1, η_p^2 = .056). Contrary to expectations, planned contrasts reveal that participants in the strong ties condition indicated to be marginally less focused on close friends while browsing Facebook ($M_{passive/Strong} = 3.07$) compared to participants in the weak ties condition ($M_{passive/Weak} =$ 3.83; p = .07) and compared to participants in the active condition whom had not faced a namelisting task ($M_{active} = 3.91$; p = .06). The manipulation of tie strength was therefore not successful. Consequently, no viable conclusions can be drawn in this study on the moderating effect of tie strength focus.

Categorical distribution in the news feed. A one-way repeated-measures ANCOVA was conducted to compare the extent to which participants in the three news feed browsing conditions indicate to have encountered the three distinguished categories of news feed posts. The means and standard deviations are presented in table 4. Mauchly's test indicates that the assumption of sphericity is violated ($\chi^2(2) = 8.40$, $\varepsilon = .91$; p = .02). The repeated-measures

⁶ Preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, homogeneity of variances (Levene's test), and homogeneity of regression slopes. No violations were observed. From here on, assumption checks will not be reported unless otherwise stated.

ANCOVA with Huynh-Feldt correction⁷ reveals a main effect between the three categories of posts (F(1.88, 154.36) = 6.97, p = .002). Planned contrasts revealed that significantly more posts are encountered about activities compared to achievements ($M_{Activities} = 4.17$, $M_{Achievements} = 3.26$; p < .01) and compared to materialistic purchases ($M_{Purchases} = 2.66$; p < .01).

Categorical distribution in offline settings. A one-way repeated-measures ANCOVA was conducted to compare mean scores of the three categories in regard to offline self-presentation. No significant main effect was observed (F = .44, NS); means are depicted in table 5.

Table 4 – Categorical distribution in the news feed

Table 5 – Categorical distribution in offline settings

Descriptives	<u>N</u>	<u>Mean</u>	<u>SD</u>	Descriptives	<u>N</u>	<u>Mean</u>	<u>SD</u>
Material products	84	2.66	0.11	Material products	84	3.55	0.11
Achievements	84	3.26	0.10	Achievements	84	3.66	0.08
Activities	84	4.17	0.08	Activities	84	3.56	0.09

Categorical distribution in the news feed vs. offline settings. Paired sample T-tests reveal that participants in the Facebook conditions indicate to encounter less self-presentation by materialistic posts in the news feed ($M_{FB \ Materialism} = 2.65$) compared to offline settings ($M_{offline \ Materialism} = 3.55$; t(83) = -5.79, p < .001). Accordingly they indicate to experience less self-presentation by achievements in the news feed ($M_{FB \ Achievements} = 3.26$) than in an offline setting ($M_{offline \ Achievements} = 3.66$; t(83) = -3.35, p = .001). The reverse was true for activities. Activities were indicated to have been encountered more in the news feed ($M_{FB \ Activities} = 4.17$) than in offline settings ($M_{offline \ Activities} = 3.56$; t(83) = 5.17, p < .001).

Estimations of peers' positive experiences. A one-way ANCOVA uncovered no effect of news feed participation on estimations of peers' positive experiences (F(3, 109) = 2.13; NS, η_p ² = .06). As expected, no significant differences in estimations were found for negative experiences either (F(3, 109) = .76, NS).

Experienced emotions. A one-way repeated measures ANCOVA with Huynh-Feldt correction ($\epsilon = .79$) revealed that there was a marginally significant overall difference between the four examined emotions as a result of news feed browsing (F(2.47, 194) = 2.58, p = .07, $\eta_p^2 = .03$).

⁷ The Huynh-Feldt correction is applied as is proposed by Girden (1992) for departures of sphericity above epsilon values of .75.

Planned contrasts revealed that benign envy ($M_{BenignEnvy} = 3.54$) was felt to a larger degree than malicious envy ($M_{MaliciousEnvy} = 2.29$; p < .01) and resentment ($M_{Resentment} = 2.14$, p < .01). No significant difference was found between the degree of experienced benign envy compared to experienced admiration ($M_{Admiration} = 3.90$, NS). This is visually presented in figure 2.

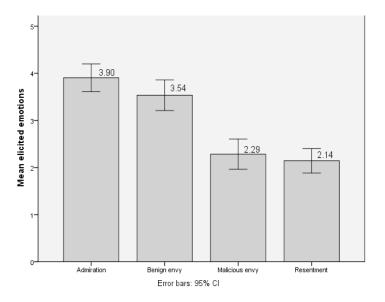


Figure 2. Histogram of Experienced Emotions while Browsing Facebook

4.1.3 Discussion

This study observed no effect of news feed participation on the frequency-estimation to which peers experience positive events. It was expected that merely passive browsers focused on strong ties would experience a rise in the frequency-estimations. However, the tie strength manipulation was not successful which makes it plausible that no effects are observed in this experiment on these estimations. Hence, the effect on frequency-estimations requires to be examined with a different tie strength manipulation in the second experiment. Secondly, this study showed that the high degree of envy reported by Krasnova et al. (2013) is mainly driven by benign envy, and not so much by malicious envy. There is a considerable amount of upward social comparison evoked by news feed browsing given that the degree to which one experiences benign envy is

similar to the degree of admiration. In accordance with the pilot study, participants indicate that people focus in the news feed more on self-presentation by activities than on self-presentation by one's materialistic possessions and purchases. This study has extended the findings of the pilot study as participants indicate that individuals present themselves in the news feed more by activities compared to face-to-face settings. In contrast, participants indicate that people present themselves less by materialistic purchases and possessions in the news feed compared to face-to-face settings. Study 2 builds on the findings of this study regarding benign envy and self-presentation and addresses the complete conceptual model.

4.2 | STUDY 2

The main objective of study two is to test the complete presumed conceptual framework. A different manipulation of tie strength focus is incorporated for this purpose. A control condition is included to get an indication whether potential effects of news feed participation are driven by upward activity (e.g., a shift towards more experiential purchases than in regular settings) or by downward activity (e.g., a shift towards less experiential purchases).

It was argued in chapter 3 that active browsers focus more on their own shared content and passive browsers more on shared content by others. This is presumed to be a crucial antecedent for the expected different psychological effects that the two types of news feed participation evoke. However, this has not been empirically tested yet and is therefore examined in this study.

The pilot study and study 1 categorized posts in the news feed on basis of the first five respectively three posts they encountered in the news feed. Study 2 uses a categorization procedure based on the posts browsers can immediately recall. This serves the purpose of assessing whether posts on activities are not only encountered, but also recalled more frequently than posts on achievements and materialistic products. This is a proxy for assessing whether posts concerning activities also considerably impress and affect browsers.

4.2.1 Method

Participants and design. Hundred-thirty-three Tilburg University undergraduates ($M_{age} = 21.7$; 42% male) were randomly assigned to one of three conditions (news feed participation: active vs. passive vs. none) in the between-subjects design. Tie strength is measured by individual differences.

Procedure. The manipulation procedure of news feed participation was identical to study 1.

Two questions assessed subsequently whether active browsers were more focused on their own posted content and whether passive browsers focused more on content posted by others. Participants in the news feed browsing conditions had to indicate their degree of agreement on a five-point scale (1 = strongly disagree; 5 = strongly agree) for the statements "I was focused on information that I share myself to others on Facebook" and "I was focused on information that others share on Facebook". Three statements, on which participants could indicate their level of agreement (1=strongly disagree, 5=strongly agree), were developed to measure tie strength. The statements were respectively "The messages that I read in the news feed were mainly of people to whom I feel intimately related", "I looked longer at messages of people where I do not feel intimately related to". Scores were averaged, after reverse scoring the second statement, to form a measure of tie strength ($\alpha = .674$)⁸. Higher scores reflect a focus on stronger ties.

Then, the dependent variables were measured starting with the examination of the extent to which participants preferred to purchase experiential products over material products. This preference is assessed by building on a procedure initiated by Liberman and Trope (1978), and modernized by Van Boven and Gilovich (2003, see study 4, p. 1199). Participants were instructed to imagine that they had to make four choices; each between purchasing an experience and a material possession. The four choices were between (1) a new watch or going to a concert, (2) a pair of new shoes or a dinner followed by a comedy show, (3) a new phone accessory of one's choice or going to a pool hall, and (4) a new jacket or spending an evening in a bar with a friend. The first mediator, which is the estimation of the frequency to which peers experience positive events, is identically measured as in the first study. The second potential mediator, benign envy, is measured by taking the degree of benign envy experienced in each of the three most salient posts as a proxy for general benign envy. Participants were therefore instructed to list three posts they instantly recalled. Then they had to indicate for each post to what degree it elicited each of the following four feelings in them: admiration, benign envy, malicious envy, and resentment. This was indicated on a 5-point scale (1 = Clearly does not describe my feelings, 5 = Clearly describes my feelings). Admiration, malicious envy, and resentment were included to assess whether the main effect is driven by benign envy or by alternative emotions that are

⁸ The internal consistency of the tie strength measure is deemed acceptable since the cut-off value of .7 is included in the confidence interval. Interpretation is based on lecture 7 of Rik Pieters in the course Survey Methodology. Thereby, Hair, et al. (2006, p.92) suggested that Cronbach α – values between 0.6 and 0.7 are "deemed the lower limit for acceptability".

evoked by news feed browsing. Participants were subsequently asked to indicate for each post what the valence of the post was (1 = very negative, 5 = very positive) and what the content was ("materialistic" vs. "achievement" vs. activity" vs. "something else"). These measures were similar to the ones used in the pilot study.

4.2.2 Results

Manipulation checks. Two participants were excluded from analysis since they browsed the website they were assigned to less than five minutes. An independent samples T-test shows that active news feed browsers report to be more self-focused ($M_{active} = 2.17$) than passive news feed browsers ($M_{passive} = 1.69$; t(106) = 2.40; p = .02). On the contrary, passive browsers indicate to be more focused on others ($M_{passive} = 4.39$) than active browsers ($M_{active} = 4.02$; t(106) = -2.81; p < .01). In general, participants in both conditions indicated to be focused in particular on what others post while browsing the news feed.

Categorical distribution of posts. Of the posts participants instantly recalled, 153 out of the 323 posts (47.7%) were about activities, 29 (9%) were about achievements, 19 (5.9%) about materialistic products, and 122 (37.8%) were about something else. The differences between the frequencies of posts in the four categories statistically significant were $(\chi^2(3, N = 323) = 166.10; p < .001)$. Passive and active browsers had a similar categorical of distribution recalled posts $(\chi^2(3, N = 162) = 1.68; NS)$; see appendix B.1 for more details. Moreover, a one sample Ttest reveals that respondents rate the valence of recalled posts as significantly more positive than the neutral midpoint ($M_{Valence} = 3.80$; SD = 1.08; t(323) = 13.35; p < .001). Importantly, posts specifically about activities were significantly more positive than the neutral midpoint as well ($M_{Valence} = 4.05$; SD = .82; t(152) = 15.95; p < .001).

Preference for Purchasing Experiential products over Material Products. A moderated regression including gender as a covariate was performed on purchase preferences with independent variables (i) tie strength focus, (ii) a dummy variable for news feed participation, and (iii) their interaction. The results revealed no main effect of news feed participation ($\beta = .02, t(103) = -.18$, NS), no main effect of tie strength focus ($\beta = .21, t(103) = 1.60, NS$), and no significant two-way interaction ($\beta = -.14, t(103) = -1.08, NS$). Although the interaction

is insignificant, it is interesting to see whether the pattern follows the hypothesis. The effects of news feed participation are tested via a simple slopes analysis at one standard deviation above and below the mean of tie strength focus (as a proxy for respectively a strong ties focus and a weak ties focus). The simple slopes analysis exposed that the slope of tie strength focus was significantly positive for passive news feed browsing ($\beta = .35$, t(104) = 2.82 p < .01), while the slope of tie strength was insignificant for active news feed browsing ($\beta = .07$, t(104) = .58, NS). This is visualized in figure 3. In addition, a one sample t-test shows that passive browsers focused on strong ties prefer to buy more experiential products than participants who did not browse the news feed ($M_{control} = 2.20$, $M_{passive/Strong} = 2.80$; t(24) = -2.60, p = .02).

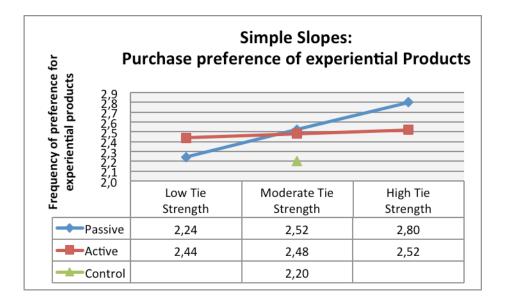


Figure 3. Simple Slopes Analysis Preference for Experiential Products

Estimations of peers' positive experiences. A moderated regression including gender as a covariate was performed on estimations of peers' positive experiences with independent variables (i) tie strength focus, (ii) news feed participation, and (iii) their interaction. The results showed no main effect of news feed participation ($\beta = 1.54$, t(103) = 1.18, NS), no main effect of tie strength focus ($\beta = -.61$, t(103) = -.37, NS), and no significant two-way interaction ($\beta = -.39$, t(103) = -.23, NS). A marginal significant effect of gender was found however indicating that women estimate peers to experience more positive events ($M_{Women} = 70.89$; $M_{Men} = 66.06$; t(103) = 1.65, p = .10). Alternatively, it may be that

browsing the news feed leads in general to higher estimations of the frequency to which peers experience positive events. However, an independent sample T-test shows that passive browsers do not have higher estimations than non-browsers ($M_{passive} = 67.39$, $M_{control} = 68.98$; t(77) = -.49, NS). Unexpectedly, higher estimations of peers' positive experiences did not lead to more feelings of benign envy ($\beta = .00$, t(105) = -.06, NS).

Benign Envy. A moderated regression including gender as a covariate was performed on benign envy with independent variables (i) tie strength focus, (ii) news feed participation, and (iii) their interaction. The regression revealed no main effect of news feed participation $(\beta = -.30, t(103) = -1.51, NS)$, no main effect of tie strength focus $\beta = .41, t(103) = 1.63, NS$), but а significant two-way interaction $(\beta = -.59, t(103) = -2.35, p = .02)$. To explore the interaction effect, a simple slopes analysis examined the effects of news feed participation on benign envy at one standard deviation above and below the mean of tie strength focus. The slope of tie strength focus was significantly positive for passive news feed browsing ($\beta = 1.00$, t(104) = 4.03, p < .001), while the slope of tie strength was insignificant for active news feed browsing($\beta = -.18$, t(104) = -.78, NS). As visualized in figure 4, especially passive browsers focused on strong ties experience benign envy as a result of news feed browsing.

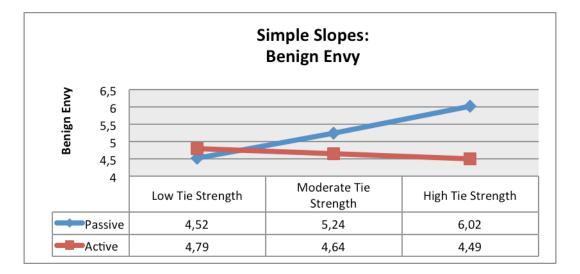


Figure 4.Simple Slopes Analysis Benign Envy

It was tested whether benign envy mediates the effect of news feed participation on the preference for experiential purchases over material purchases in a moderated mediation analysis as proposed by Hayes (2013, model 8). The effect of news feed participation on benign envy was marginally significant ($\beta = 1.58$, t(103) = 1,92, p = .06) and the interaction was significant (($\beta = -.59$, t(103) = -2,35, p = .02). Benign envy did not predict purchase preferences however ($\beta = .02$, t(102) = .30, NS). Consequently, the bootstrap analysis shows no positive mediation of benign envy on purchase preferences (95% CI: -.08 to .05).

Alternative Emotions. Malicious envy, resentment, and admiration are analyzed to check whether purchase preferences are not driven by these three alternative emotions. A moderated regression with gender as covariate and malicious envy as dependent variable revealed no main effect of news feed participation ($\beta = -.22$, t(103) = -1.44, NS), no main effect of tie $(\beta = .07, t(103) = -.35, NS),$ strength focus and no two-way interaction $(\beta = -.31, t(103) = -1.57, NS)$. A moderated regression with gender as covariate and resentment as dependent variable revealed no main effect of news feed participation $(\beta = -.06, t(103) = -.39, NS)$, no main effect of tie strength focus $(\beta = .00, t(103) = .01, NS)$, and no two-way interaction $(\beta = -.29, t(103) = -1.60, NS)$. Finally, a moderated regression with gender as covariate and admiration as dependent variable revealed no main effect of news feed participation ($\beta = -.29$, t(103) = -1.10, NS), a marginal effect of tie strength focus ($\beta = .55$, t(103) = 1.66, p = .10), and a marginally significant two-way interaction ($\beta = -.62$, t(103) = -1.86, p = .07). A simple slopes analysis shows that the slope of tie strength was significantly positive for passive news feed browsing ($\beta = 1.17$, t(104) = 3.61, p < .001), while the slope of tie strength was insignificant for active news feed browsing ($\beta = -.07$, t(104) = -.23, NS). As visualized in figure 5, especially passive browsers focused on strong ties experience admiration as a result of news feed browsing.

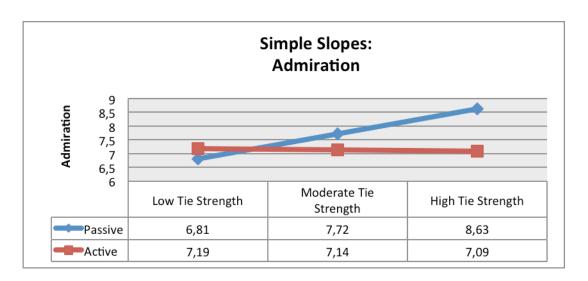


Figure 5. Simple Slopes Analysis Admiration

It was tested whether admiration mediates the effect of news feed participation on the preference for experiential purchases over material purchases in the moderated mediation analysis proposed by Hayes (2013, model 8). The effect of news feed participation on admiration was insignificant ($\beta = 1.67$, t(103) = 1.55, NS), but the interaction was marginally significant ($\beta = -.62$, t(103) = -1.86, p = .07). In addition, admiration did not predict purchase preferences ($\beta = .01$, t(102) = .31, NS). Therefore, the bootstrap analysis shows no mediation of admiration on purchase preferences (95% CI: -.07 to .04).

4.2.3 Discussion

This study shows that people not only encounter posts on positively valenced activities to a higher degree, but that these posts are also salient to people. Thus, study 2 provides more support for hypothesis 1. Posts on positively valenced activities are therefore the primary category of posts to affect people (see appendix B.2 for an overview of the three studies regarding categorized content). The main finding of this study is that passive browsers focused on strong ties prefer to purchase more experiential products than non-browsers or passive browsers focused on weak ties. In contrast, tie strength did not moderate the purchase preferences of active browsers. These findings are in line with hypothesis 2. A main determinant for the different effects between passive and active browsers on purchase preferences is exposed. Namely, the assumption that active browsers are more focused on themselves and passive browsers more on

others is supported. Nevertheless, the presumed underlying mechanism does not find support in this study. Contrary to expectations, passive browsers focused on strong ties had no higher estimations of peers' positive experiences than passive browsers focused on weak ties. Hypothesis 3 was therefore not accepted. Passive browsers focused on strong ties experience more benign envy compared to passive browsers focused on weak ties. No differences were observed for active browsers. Hypothesis 4 is therefore confirmed. Nonetheless, no support was found for benign envy as a mediating mechanism. Hence, hypothesis 5 is not confirmed.

CHAPTER 5: GENERAL DISCUSSION

An elaborate discussion on the obtained insights and findings, including an answer to the problem statement, is provided in this chapter. This thesis finalizes by discussing its limitations, avenues for future research, and implications.

5.1 Discussion

Facebook has become an integrated part of life for a broad and extensive public. Prior research has shown that Facebook impacts psychological states and behavioral tendencies of its browsers substantially. Recently, Wilcox and Stephen (2013) initiated to address the literature gap concerning the relationship between Facebook browsing and consumer behavior. This thesis closed this gap further. Browsing the Facebook-news feed is demonstrated to facilitate a modification in purchase preferences for passive news feed browsers focused on strong ties. It conforms to the findings of prior literature that especially this group of browsers experiences the effect on purchase preferences. Granovetter (1973) demonstrated that especially strong ties have the ability to influence other people. In addition, prior literature already suggested that the influence of Facebook browsing depends on the degree of participation in terms of active versus passive participation (e.g., Krasnova et al., 2013). This is mainly caused by a difference in the browser's focus. Wilcox and Stephen (2013) show that a focus on self-posted content while browsing Facebook has a different impact on browsers than a focus on content provided by others.

The specific direction in which the purchase preferences of passive browsers focused on strong ties changes is towards a higher preference for experiential purchases over materialistic purchases. The modified preference is grounded in online word-of-mouth communication of peers that results from positive self-presentation. A content analysis has advanced our knowledge about self-presentation in the news feed by exposing that individuals' news feed posts are especially about the positively valenced activities they experience. The observed positivity is in line with prior research of Denti et al. (2012) on self-presentation in the news feed and with more general insights of positive self-presentation on Facebook (e.g., Zhao et al., 2008). The pioneering finding of the content analysis is that people especially present themselves by their experienced activities. The general trend of self-presentation by positively valenced activities is argued to be the main antecedent for the shift in purchase preferences experienced by browsers who focus on the social information provided by their close peers. That is, the online word-ofmouth communication of one's reference group about positive activities evokes a stronger preference to purchase experiential products in order to experience these activities oneself.

It is yet unclear what psychological process translates this social information into the preference for experiential purchases. This thesis hypothesized, but not found, that the increase was particularly instigated by social comparison processes. No support was obtained for the line of reasoning that passively browsing the news feed results in higher estimations of peers' positive experiences in case browsers focus on strong ties. This is surprising given the findings of Chou and Edge (2012) and Qiu et al. (2012), who showed respectively that a Facebookbrowsing episode evokes people to estimate that others have happier lives and that others experience more positive emotions. Importantly, the effect on estimations may be weakened by probing subjects in the lab studies to estimate the frequency to which other undergraduates in their university have had positive experiences in the two foregoing weeks. Participants might not generalize the obtained social information of their reference group (i.e., one's close Facebookfriends) about positive experiences to undergraduate students in general. An alternative mechanism might be that browsers feel that their peers are more satisfied and 'happy' with a similar experience than they are themselves. Thus, the estimation of the frequency to which peers experience more desirable experiences may not change, only the interpretation of those experiences. In that case, participants would feel a need to change their attitude towards activities rather than experiencing those activities more.

Interestingly, the findings of Krasnova et al. (2013) are extended by showing that the evoked envy is in particular benign. As was expected, especially passive browsers focused on strong ties experience a rise in benign envy since they compare themselves more to their peers. These browsers are argued to be motivated to buy experiential products since the upward social comparison is generally in the domain of experienced activities. Namely, benign envy typically motivates an individual to improve oneself in the particular domain where the envy is evoked (Van der Ven et al. 2009). This serves the goal of coping with the envious feeling that was evoked by an upward social comparison. It is therefore remarkable that benign envy had no mediating role in the increased preference for experiential products. It may be that a minimum threshold of benign envy has to be present before purchase preferences are adjusted. Thus, only people who experience considerable feelings of benign envy might change their preferences. In the context of this thesis, especially passive browsers focused on strong ties experienced high levels of benign envy, whereas other types of browsers mostly experienced moderate feelings of benign envy while passive browsers focused on strong ties both experience more benign envy and have a stronger preference for experiential purchases.

The obtained insights provide a partial answer to the problem statement; browsing the news feed does influence purchase preferences; the underlying mechanism is still unclear however. An alternative mechanism driving the observed main effect may be people's conformation to social proof. A desire to fit in with peers results in a motivation to conform to normative social influences (Cialdini, 1993). The specific desire evoked by the news feed entails to experience more positive valenced activities as one might believe that peers are already involved in more activities. Passive browsers focused on strong ties would especially feel this need since they are more focused on the norm set by their reference group. Note however that participants did not estimate others to experience more positive events. This mechanism is therefore not a strongly appealing explanation. A second and related alternative mechanism might be that browsing the news feed evokes a preference to purchase experiential products in order to enable more desirable self-presentation in the news feed oneself. Namely, people may desire to take part in a social activity that is valued in their social environment. It would be interesting to assess whether the desire to participate in the news feed is so strong as to enable a change in people's purchase preferences.

5.2 Limitations and Future Research

This thesis is not without limitations, and the most important ones are addressed here. First, the results in the active browsing condition might be seriously weakened by the operationalization of news feed participation. The experimental manipulation of the active condition allowed for commenting on posts initiated by others, whereas the theoretical discussion assumed that the browser initiated the posts (i.e., status updates). 'Active' browsers posting comments are less focused on their own positive experiences than browsers updating their status. Consequently, participants who browsed actively by posting comments may have experienced more similar effects in line with passive browsing as with active browsing. This limitation is hard to avoid in a lab experiment as forcing students to post status updates in the news feed is likely to lead to confounding effects such as a negative mood in case they do not appreciate to follow the instruction. It was attempted to get around this problem by giving active browsers an option to comment on others since it is a less controversial fashion of active participation. Future studies can examine the effects of news feed participation by analyzing browsers who had a free choice to participate actively or passively.

Second, benign envy may not mediate purchase preferences because the measures of these two constructs do not connect perfectly. Benign envy is measured on basis of three posts in the news feed that were truly encountered by the participants. Purchase preferences were operationalized by four different activities that participants might not have encountered in the news feed. These activities were (1) going to a concert, (2) attending a dinner followed by a comedy show, (3) going to a pool hall, and (4) spending an evening in a bar with a friend. The reported degree of benign envy may thus have a different level than the feelings of benign envy that truly drive the increased purchase preferences in the four examined activities. Therefore, the imperfect connection may have weakened the relationship.

Third, the content participants posted in recent days may still have been salient when they performed the browsing tasks. For instance, if a participant posted a day before participating in the experiment about an experienced concert, then this person's self-worth regarding experienced activities is likely to be higher. This would lead to less upward social comparisons. As a result, less envious feelings and a less strong urge to purchase experiential products is experienced by these browsers. Additionally, several activities can interrupt a passive browsing episode even though participants were instructed to merely browse the news feed. For instance, it could not be prevented that Facebook-friends of participants started to talk to the participant in personal chats.

This may interfere with frustrating envious feelings developed by passively browsing the news feed. These discussed potential confounds may have weakened the extent of experienced benign envy and subsequently the purchase preferences in the passive news feed participation conditions.

Fourth, estimations of positive experiences were operationalized by examining five events: receiving a high grade, attending a fun party, participating in sports, going out with friends, and having a great meal. Though, no proof is available that shows that these five activities are common topics of posts in the news feed. Estimations may not have been altered for these events, but may have been altered for more commonly encountered posts such as holidays (Pempek et al., 2009). Moreover, the first event was not an activity but an achievement. This item remained included since deleting it did not affect the results.

Fifth, the categories in which the posted content could be classified (i.e., achievements, activities, or materialistic products) were not based on a detailed content analysis. The pilot study offers a fruitful start in classifying the content in the news feed since about half of the posts were classified in those categories by objective raters as well as subjective raters. Future research is invited to conduct a more detailed content analysis based on these initial distinctions.

Sixth, browsing a news website in the control condition may have an effect by itself. This could lead to invalid inferences on the distinct effects between passively browsing the news feed while being focus on strong ties and the control condition. Though, it appears unlikely that the control condition has a confounding effect since Wilcox and Stephen (2013) used a similar website as a control condition in several of their experiments and found that the effects were comparable to conditions in which participants in the control group did not browse a website.

This research focused specifically on the consequences of Facebook browsing for younger generations. Strano (2008) conclude that adults are less concerned with presenting themselves favorably on Facebook than youngsters. Moreover, Denti et al. (2012) showed that there are several differences between the self-presentation on Facebook of the younger generations (<25 years) compared to older generations (>25 years). Adults share for instance more posts on Facebook about negative events and everyday events rather than more desirable information as the young generation does. The results have therefore a limited scope as they can only be generalized to younger generations. Future research can see whether the significant relationships in the conceptual framework also hold for the steeply rising adult population on Facebook.

It would be worthwhile for future research to assess the long-term effects of news feed

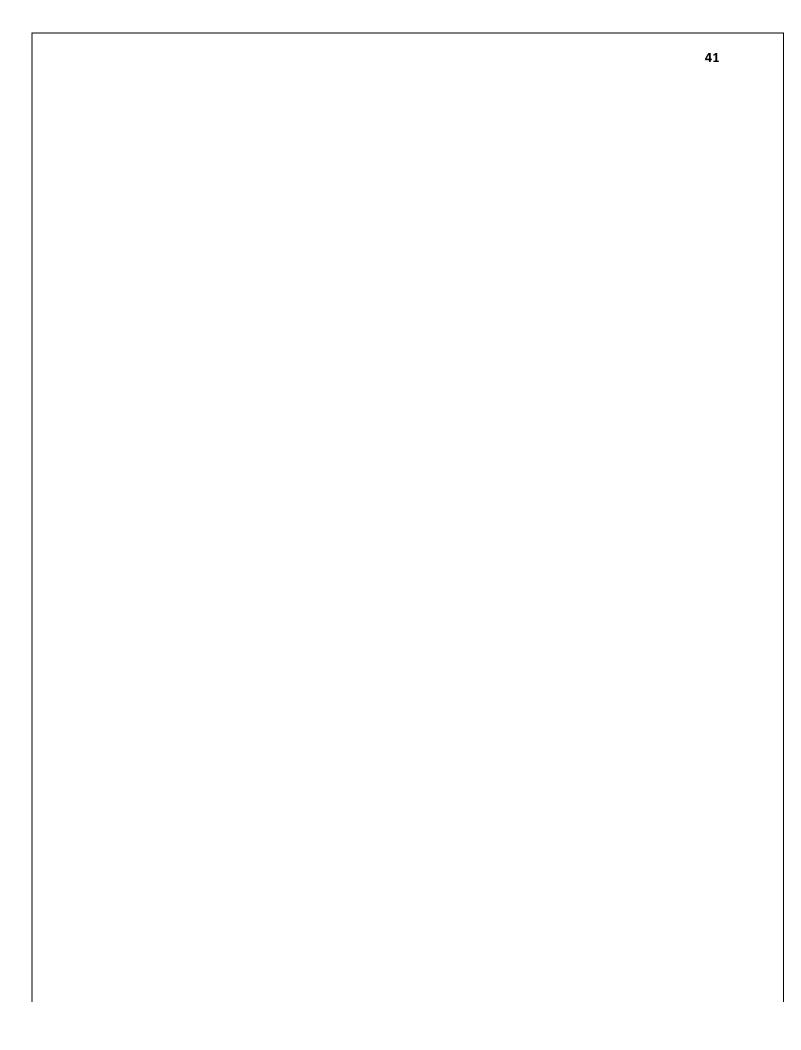
browsing rather than short-term effects. It is plausible that the shift in self-presentation instigated by Facebook has several long-term effects on browsers such as an increased role of experienced activities in defining an individual's status and self-worth.

5.3 Implications

Prior research made critical notes on how Facebook influences peoples' lives (e.g., Qiu et al. 2012; Chou and Edge, 2012; Krasnova et al. 2013). Moreover, Wilcox and Stephen show that Facebook can have a detrimental effect on consumer behavior (unhealthy eating and overspending) as a result of lowered self-control. This thesis shows that Facebook can also have a positive influence on consumer behavior. Namely, spending one's money on experiential products, rather than spending the money on materialistic products, is argued to make people more liked and accepted by others, and subsequently happier, (Van Boven and Gilovich, 2003; Nicolao, et al., 2009; Van Boven et al., 2010).

The observed difference in psychological effects between active and passive news feed participation, combined with the moderating role of tie strength focus, shows that it is important for Facebook browsers to take their motivations into account for using Facebook. For instance, if one evaluates the experienced envy resulting from Facebook browsing as undesired or frustrating, then it may be a better strategy to read the posts of close peers less frequently.

The news feed can be a fruitful feature for companies selling experiential products as consumers prefer to purchase more experiential purchases. Strategies can be implemented to translate this temporary preference for the purchase of experiential products into actual purchases. Furthermore, Facebook[™] can optimize its features to optimize the fit with peoples' self-presentation goals. The introduction of features were participants can show their positively valenced activities may be appreciated by news feed consumers. Additionally, Facebook[™] may want to implement or adjust features to make people more focused on the content in which they can present themselves rather than stimulating a focus on obtaining social information provided by others. This has the potential to increase consumer satisfaction by decreasing frustrating experiences with Facebook and by promoting positive experiences. A recommendation might for instance be to display the most recent status updates of the browser oneself on top of the news feed to make peoples' own (positive) experiences more salient while browsing.



REFERENCES

- Back, M.D., J.M. Stopfer, S. Vazire, S. Gaddis, S.C. Schmukle, B. Egloff, & S.D. Gosling (2010). Facebook Profiles Reflect Actual Personality, not Self-Idealization. *Psychological Science*, 21(3), 372-74.
- Bargh, J.A., K.Y. McKenna, & G. M. Fitzsimons, (2002). Can You See the Real Me?
 Activation and Expression of the "True Self" on the Internet. *Journal of Social Issues*, 58(1), 33-48.
- Baumeister, R. F. (1982). A Self-Presentational View of Social Phenomena. Psychological Bulletin, 91(1), 3-29.
- Baumer, E. P., P. Adams, V. D. Khovanskaya, T. C. Liao, M.E. Smith, V. Schwanda Sosik, & K. Williams (2013, April). Limiting, Leaving, and (re) Lapsing: an Exploration of Facebook Non-Use Practices and Experiences. In: *Proceedings of the 2013 ACM annual conference on Human factors in computing systems* (pp. 3257-66). ACM.
- Benoit, P. J. (1997). *Telling the Success Story: Acclaiming and Disclaiming Discourse*. SUNY Press.
- Bessière, K., S. Kiesler, R. Kraut, & B.S. Boneva, (2008). Effects of Internet Use and Social Resources on Changes in Depression. *Information, Community & Society*, 11(1), 47-70.
- Chevalier, J. A. & D. Mayzlin (2006). The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal of Marketing Research*, 43 (3), 345-54
- Brown, J., & P. H. Reingen (1987). Social Ties and Word-of-Mouth Referral Behavior. *Journal* of Consumer Research, 14 (2), 350–62.
- Burke, M., C. Marlow, & T. Lento (2010, April). Social Network Activity and Social Well-Being. In Proceedings of the 28th international conference on Human factors in computing systems, (pp. 1909-12). ACM.

Center for a New American Dream. (2008). *Survey confirms that Americans overworked, overspent and rethinking the American Dream.* Takoma Park, MD: Author.

- Cialdini, R.B. (1993). Influence (rev): The Psychology of Persuasion. HarperCollins.
- Cohen J.A. (1960), Coefficient of Agreement for Nominal Scales, *Educational and Psychological Measurement*, 20(1), 37–46.

Chou, H.T.G., & N. Edge (2012). "They are Happier and Having Better Lives than I Am": The

Impact of Using Facebook on Perceptions of Others' Lives. *Cyberpsychology, Behavior, and Social Networking*, *15*(2), 117-21.

- Deci, E.L., & R.M. Ryan (1987). The Support of Autonomy and the Control of Behavior. Journal of Personality and Social Psychology, 53, 1024–37.
- Denti et al. (2012). *Sweden's Largest Facebook Study*. Goethenburg: Goethenburg Research Institute.
- Dittmar, H. & L. Pepper (1992), "Materialistic Values, Relative Wealth, and Person Perception: Social Psychological Belief Systems of Adolescents from Different Socio Economic Backgrounds," in *Meaning, Measure, and Morality of Materialism*, ed. Floyd Rudmin and Marsha Richins, Provo, UT: Association for Consumer Research and School of Business, Queen's University, 40–45.
- Dougherty, H. (2010). Facebook reaches top ranking in US. Experian Hitwise.
- Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-30.
- Ellison, N.B., C. Steinfield, & C. Lampe (2007). The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-68.
- Ellison, N.B., C. Steinfield, & C. Lampe (2011). Connection Strategies: Social Capital Implications of Facebook-Enabled Communication Practices. *New Media & Society*, 13(6), 873-92.
- Festinger, L. (1954). A Theory of Social Comparison Processes. Human relations, 7(2), 117-40.
- Frank, R. H. (1999). Luxury Fever: Why Money Fails to Satisfy in an Era of Success. New York: Free Press.
- Fromm, E. (1976). To Have or to Be? New York: Harper and Row.
- Girden, E. R. (Ed.). (1992). ANOVA: Repeated Measures (No. 84). SAGE Publications, Incorporated.
- Godes, D., & D. Mayzlin (2004). Using Online Conversations to Study Word-of-Mouth Communication. *Marketing Science*, *23*(4), 545-60.
- Goel, S., J.M. Hofman, S. Lahaie, D.M. Pennock, & D.J. Watts (2011). Predicting Consumer Behavior with Web Search. *Proceedings of the National Academy of Sciences*, 107 (41), 17486-90.

Goffman, E. (1959). The Presentation of Self in Everyday Life. New York: Anchor.

- Gonzales, A.L., & J.T. Hancock (2011). Mirror, mirror on My Facebook Wall: Effects of Exposure to Facebook on Self-Esteem. *Cyberpsychology, Behavior, and Social Networking*, 14, 79-83.
- Granovetter, M.S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78 (6), 1360-80
- Hair, J., W. Black, B. Babin, R. Anderson, & R. Tatham (2006). *Multivariate Data Analysis* (6th ed.). New Jersey: Pearson Educational, Inc.
- Hallgren, K.A. (2012). Computing Inter-Rater Reliability for Observational Data: an Overview and Tutorial. *Tutorials in Quantitative Methods for Psychology*, 8(1), 23-34.
- Hayes, A.F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Press.
- Higgins, E.T. (1987). Self-Discrepancy: a Theory Relating Self and Affect. *Psychological Review*, 94(3), 319-40.
- Howell, R.T., P. Pchelin, & R. Iyer, (2012). The Preference for Experiences over Possessions: Measurement and Construct Validation of the Experiential Buying Tendency Scale. *The Journal of Positive Psychology*, 7(1), 57-71.

Hull, C.L. (1943). Principles of Behavior. New York: Appleton-Century-Crofts,

- Joinson A.N. (2008). Looking At, Looking Up or Keeping Up with People?: Motives and Use of Facebook. In Proceedings of the SIGCHI conference on Human Factors in Computing Systems, 1027-36.
- Jordan, A.H., B. Monin, C.S. Dweck, B.J. Lovett, O.P. John, & J.J. Gross (2011). Misery Has More Company than People Think: Underestimating the Prevalence of Others' Negative Emotions. *Personality and Social Psychology Bulletin*, 37(1), 120-35.
- Junco, R. (2013). Comparing Actual and Self-Reported Measures of Facebook Use. *Computers in Human Behavior*, *29*(3), 626-31.
- Karl, K., J. Peluchette, & C. Schlagel, (2010). A Cross-Cultural Examination of Student
 Attitudes and Gender Differences in Facebook Profile Content. *International Journal of Virtual Communities and Social Networking*, 2(2), 11-31.

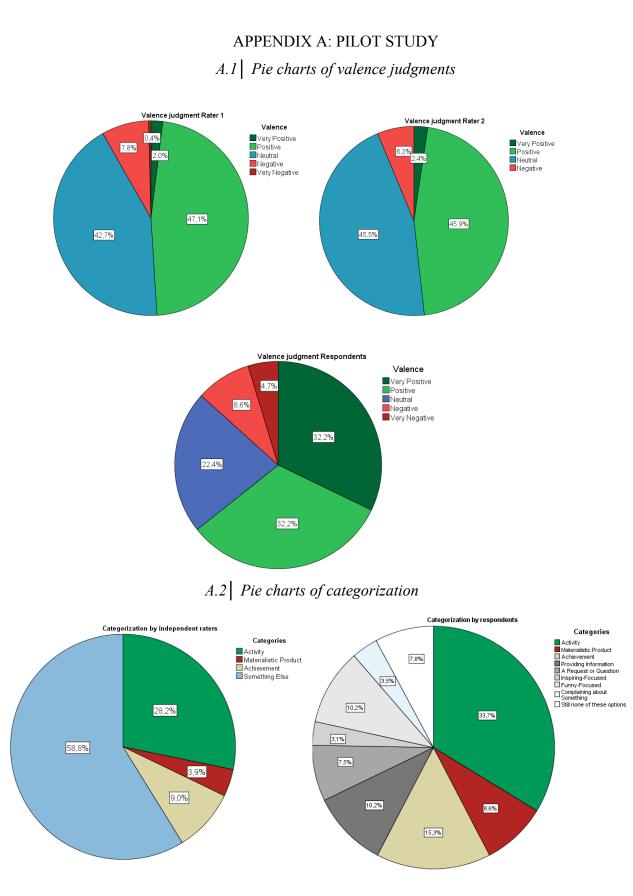
Krasnova, H., H. Wenninger, T. Widjaja, & P. Buxmann (2013). Envy on Facebook: A

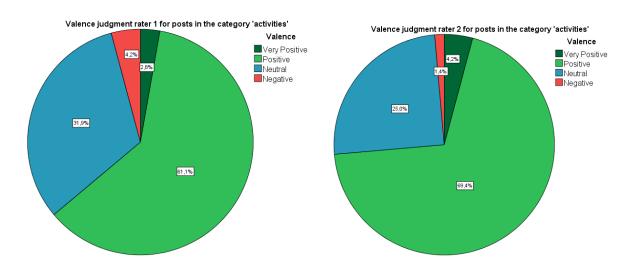
Hidden Threat to Users' Life Satisfaction?. In 11th International Conference on Wirtschaftsinformatik (WI), Leipzig, Germany.

- Koroleva, K., H. Krasnova, N. Veltri, & O. Günther (2011). It's All about Networking! Empirical Investigation of Social Capital Formation on Social Network Sites. *ICIS 2011 Proceedings*.
- Keltner, D., & J. Haidt (1999). Social Functions of Emotions at Four Levels of Analysis. *Cognition & Emotion*, 13(5), 505-21.
- Landis J.R., & G.G. Koch (1977). The Measurement of Observer Agreement for Categorical Data, *Biometrics*, 33(1), 159–74.
- Leary, M.R. (1996). Self-Presentation: Impression Management and Interpersonal Behavior.Brown & Benchmark Publishers.
- Leary, M.R., & A.B. Allen (2011). Self-Presentational Persona: Simultaneous Management of Multiple Impressions. *Journal of Personality and Social Psychology*, 101(5), 1033-49.
- Liberman, N., & Y. Trope (1998). The Role of Feasibility and Desirability Considerations in Near and Distant Future Decisions: A Test of Temporal Construal Theory. *Journal of Personality and Social Psychology*, 75, 499–519.
- Loewenstein, G. (1996). Out of Control: Visceral Influences on Behavior, *Organizational Behavior and Human Decision Processes*, 65(3), 272-92.
- McKenna, K.Y., & J.A. Bargh (1998). Coming Out in the Age of the Internet: Identity" Demarginalization" through Virtual Group Participation. *Journal of Personality and Social Psychology*, 75(3), 681-94.
- McKenna, K.Y., A.S. Green, & M.E. Gleason (2002). Relationship Formation on the Internet: What's the Big Attraction?. *Journal of Social Issues*, *58*(1), 9-31.
- Mehdizadeh, S. (2010). Self-Presentation 2.0: Narcissism and Self-Esteem on Facebook. *Cyberpsychology, Behavior, and Social Networking*, *13*(4), 357-64.
- Nicolao, L., J.R. Irwin, & J.K. Goodman (2009). Do Experiential Purchases Make Consumers Happier than Material Purchases?. *Journal of Consumer Research*, *36*(2), 188-98.
- Parrott, W.G., & R.H. Smith, (1993). Distinguishing the Experiences of Envy and Jealousy. *Journal of Personality and Social Psychology*, 64, 906-20.
- Pempek, T.A., Y.A. Yermolayeva, & S.L. Calvert (2009). College Students' Social Networking Experiences on Facebook. *Journal of Applied Developmental Psychology*, 30(3), 227-38.

- Qiu, L., H. Lin, A.K. Leung, & W. Tov (2012). Putting Their Best Foot Forward: Emotional Disclosure on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 15(10), 569-72.
- Rubin, R.B., E.M. Perse, & C.A. Barbato (1988). Conceptualization and Measurement of Interpersonal Communication Motives. *Human Communication Research*, 14(4), 602-28.
- Ryu., G., & L. Feick (2007), "A Penny for Your Thoughts: Referral Reward Programs and Referral Likelihood," *Journal of Marketing*, 71 (1), 84-94.
- Schau, H.J., & M.C. Gilly (2003). We Are What We Post? Self Presentation in Personal Web Space. *Journal of Consumer Research*, *30*(3), 385-404.
- Smith, R.H., & S.H. Kim (2007). Comprehending Envy. Psychological Bulletin, 133(1), 46-64.
- Smith, A., L. Segall, & S. Cowley (2012), "Facebook Reaches One Billion Users," CNN Money, http://money.cnn.com/2012/10/04/technology/facebook-billionusers/index.html
- Stephen, A.T., & J. Galak (2012). The Effects of Traditional and Social Earned Media on Sales:A Study of a Microlending Marketplace. *Journal of Marketing Research*, 49(5), 624-39.
- Strano, M.M. (2008). User Descriptions and Interpretations of Self-Presentation through Facebook Profile Images. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2(2), Article 1.
- Sudman, S., B. Bickart, J. Blair, & G. Menon (1994), "A Comparison of Self and Proxy Reporting," in *Autobiographical Memory and the Validity of Retrospective Reports*, ed. Norbert Schwarz and Seymour Sudman, New York: Springer, 251–66.
- Tai, K., J. Narayanan, & D.J. McAllister (2012). Envy as Pain: Rethinking the Nature of Envy and its Implications for Employees and Organizations. *Academy of Management Review*, 37(1), 107-29.
- Tajfel., H. (Ed.). (2010). Social Identity and Intergroup Relations (Vol. 7). Cambridge University press.
- Thompson, C.J. & E. Hirschman (1995), "Understanding the Socialized Body: A Poststructuralist Analysis of Consumers' Self-Conceptions, Body Images, and Self-Care Products," *Journal of Consumer Research*, 22 (September), 139-64.
- Toma, C.L., & J.T. Hancock (2013). Self-affirmation Underlies Facebook Use. *Personality and Social Psychology Bulletin*, 39(3), 321-31.
- Valkenburg, P.M., A.P. Schouten, & J. Peter (2005). Adolescents' Identity Experiments on the Internet. *New Media & Society*, 7(3), 383-402.

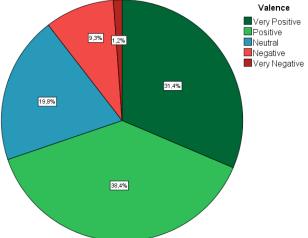
- Van Boven, L., M.C. Campbell, & T. Gilovich (2010). Stigmatizing Materialism: On Stereotypes and Impressions of Materialistic and Experiential Pursuits. *Personality and Social Psychology Bulletin*, 36(4), 551-63.
- Van Boven, L., & T. Gilovich, (2003). To Do or to Have? That Is the Question. Journal of Personality and Social Psychology, 85(6), 1193-1202.
- Van de Ven, N., M. Zeelenberg, & R. Pieters (2009). Leveling Up and Down: The Experiences of Benign and Malicious envy. *Emotion*, 9(3), 419-29.
- Van de Ven, N., M. Zeelenberg, & R. Pieters (2011). Why Envy Outperforms Admiration. *Personality and Social Psychology Bulletin*, *37*(6), 784-95.
- Walther, J.B. (2007). Selective Self-Presentation in Computer-Mediated Communication:
 Hyperpersonal Dimensions of Technology, Language, and Cognition. *Computers in Human Behavior*, 23(5), 2538-57.
- Walther, J. B., B. Van Der Heide, L.M. Hamel, & H.C. Shulman (2009). Self-Generated
 Versus Other-Generated Statements and Impressions in Computer-Mediated Communication
 A Test of Warranting Theory Using Facebook. *Communication Research*, 36(2), 229-53.
- Wills, T. A. (1981). Downward Comparison Principles in Social Psychology. *Psychological Bulletin*, 90(2), 245-71.
- Wilcox, K. & A.T. Stephen (2013), Are Close Friends the Enemy? Online Social Networks, Self-Esteem, and Self-Control, *Journal of Consumer Research*, 40(1), 90-104
- Wilson, R.E., S.D. Gosling, & L.T. Graham (2012). A review of Facebook Research in the Social Sciences. *Perspectives on Psychological Science*, 7(3), 203-20.
- Wise, K., S. Alhabash, & H. Park, (2010). Emotional Responses during Social Information Seeking on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 13(5), 555-62.
- Wood, J.T (1994). Gendered Lives: Communication, Gender, and Culture. Belmont: Wadsworth.
- Zhang (2010), "What's on Your Mind". http://m.facebook.com/note.php?note_id=477517358858&_mn_=10&p=10
- Zhao, S., S. Grasmuck, & J. Martin (2008). Identity Construction on Facebook: Digital Empowerment in Anchored Relationships. *Computers in Human Behavior*, 24(5), 1816-36.
- Zywica, J., & J. Danowski (2008). The Faces of Facebookers: Investigating Social Enhancement and Social Compensation Hypotheses; Predicting Facebook[™] and Offline Popularity from Sociability and Self-Esteem, and Mapping the Meanings of Popularity with Semantic Networks. *Journal of Computer-Mediated Communication*, 14(1), 1-34.





A.3 Pie charts of valence for the category 'Activities'

Valence judgment respondents for posts in the category 'activities'



APPENDIX B: STUDY 2

B.1 Categorical Distribution by Browsing Condition

Category	Passive Browsers	Active Browsers
Materialistic Products	8	11
Achievements	16	13
Activities	76	77
Something Else	61	61

B.2 Overview Categorical Distribution of Posts in the News Feed

Subjective indications of focus of posts	Pilot Study	Study 1 (5-point scale measure)	Study 2 (Recall measure)
Materialistic Products	8.6%	M = 2.65	5.9%
Achievements	15.2%	M = 3.26	9%
Activities	33.6%	M = 4.17	47.4%
Something Else	42.6%	-	37.8%