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## Extroversion vs. Vulnerability: A Study About How We Use Snapchat

### 1. Research Rationale

Snapchat is quickly becoming one of the most popular social media platform, especially among Millennials and Generation Z (“The Snapchat Effect”). This new application has created an entirely new way to communicate (The Snapchat Effect”). Instead of permanent messages that many are used to, Snapchat created a temporary form of communication that allows the user to send photos of his or herself for however many seconds they want to. This alters the way users communicate with their friends, family and even strangers (The Snapchat Effect”). These momentary messages allow users to be more vulnerable with the receiver because the sender is in control of the message and can directly share with specific people as opposed to showing the entire world (“Cornell Research Study”). To add to this, the ephemerality aspect allows users to feel more comfortable with what they are sending (“Cornell Research Study”). With this new form of communication requires new research in how Snapchat affects users. In our research we wanted to specifically focus on how people use Snapchat as opposed to how often they use it. Through our research we hoped to answer the question of whether Snapchat provides a direct alternative to communication via text message. We also wanted to expand on previous research to determine if Snapchat’s style of communication results in more open or more guarded styles of communication.

### 2. Theory

#### 2.1 Uses and Gratifications

This theory assumes individuals are aware of their needs, can evaluate which media best suit those needs, and make their choices accordingly (Webster 32). Our research emphasizes uses and gratification in its theoretical approach because Snapchat and text messaging both satisfy interpersonal needs, but their functional differences create nuances in a user’s decision to one

versus the other. The distinctions between communicating via Snapchat or text message require users to analyze which of the two will more appropriately satisfy their need at the present time.

The valence of a communication influences the channel through which one seeks a connection. People's motivations and emotions impact their choice of a medium. Of interest to our research are vulnerable communications. These include pictures or messages that portray risqué, embarrassing, or unflattering content. In these situations, users must choose between Snapchat or text messaging to express vulnerability.

## 2.2 Social Presence

This theory demonstrates the differences between Snapchat and text messaging most pertinent to our research. Social presence theory was defined in 1976 as "The degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships," (Short et al. 65). Social presence accounts for how well media can evoke the feeling of in-person communication within the users. In our understanding of the ways people satisfy their interpersonal needs, the degree of salience achieved between the two parties is imperative.

Social presence varies between different types of communication, with face-to-face simulating the highest feeling, and a medium such as a business letter proving relatively low on the scale (Short et al. 69). We believe Snapchat provides a higher degree of social presence than text messaging, because users indicate the length of time they wish for the recipient to view the message. Much like during a face-to-face conversation, the communication dissolves after its completion. In text messaging scenarios, interactions remain permanently in situ unless manually deleted. This gives recipients more time to interpret a message and craft a response. The ability to revise one's language can dilute their true feeling or motive—which presents more easily during in-person conversation through facial expressions and voice inflections—and lowers the social presence of the medium. Communications through Snapchat often involve photos and facial expressions.

## 2.3 Personality

In *The Man Who Lied to His Laptop: What Machines Teach Us About Human Relationships*, Clifford Nass suggests all personalities can be categorized by using a

four-quadrant spectrum, two of which are extrovert and introvert (61). Nass describes people with extroverted personalities as “The life of the party” and says they “Don’t wait for conversations to start: they initiate them and keep them going,” (60). He also explains “Introverts listen more than they talk in conversation, taking time to think before they respond and developing their ideas by reflecting privately,” (61). Conventional wisdom says people prefer to associate with individuals who have similar personalities to their own. In one of his experiments, Nass also proves introverted participants preferred a computer program with an introverted voice, and extroverted participants preferred a computer program with an extroverted voice. Because of the tendency toward similar personalities in computer programs, we want to test whether or not the preference translates to social media interfaces as well (70).

We postulate that extroverted personalities will be more drawn to Snapchat due to its higher social presence, and introverted personalities will be more drawn to text messaging due to its lower social presence. Because text messaging allows for the user to take as much time as they need to view a message before responding, we think introverted people will use it more. Snapchat promotes more immediate back-and-forth responses from its users, because if they do not answer right away, the user may forget what was said to them once it disappears. This pressure of immediacy lends itself to the loquacious nature of the extrovert, and we think Snapchat will be their more utilized social media.

### 3. Concepts

This research was based on the concepts of conversation fulfillment, vulnerability, ephemerality and personality traits of extraversion and introversion. For this research we looked at how conversation needs were met through both text message and Snapchat usage. The research analyzed whether Snapchat could be a direct alternative to conversations via text message. In this study conversation is defined as direct communication between two or more individuals over text message and/or snapchat. This study also looks at how likely people are to be vulnerable over snapchat versus text message. In this study vulnerability is defined as the willingness to send “risky” or “embarrassing” messages or photos over text message and/or snapchat. For this research study, we look at if, and how Snapchat’s ephemerality impacts people’s behavior on the application. Our study proposes that because of Snapchat’s

ephemerality, people will be more willing to be vulnerable. For this research study ephemerality is defined as “existing only briefly” or “transitory” in regards the content sent, received and posted on Snapchat. Subsequently, we look at whether a person’s degree of extroversion or introversion has an impact on their Snapchat use. Participants were asked to indicate their level of introversion or extroversion on a scale of one to five. Extroversion is defined as “the act of directing one’s interest outward or to things outside the self” (“Extroversion”). Introversion is defined as “the tendency to be inward turning, or focused more on internal thoughts, feelings and moods rather than seeking out external stimulation” (“Introversion”).

This research will include three variables of interest, an independent variable, and two dependent variables. These variables will help explain whether Snapchat provides a direct alternative to conversation via text message, and people’s willingness to be more vulnerable on Snapchat versus text message.

For this research study, the independent variable being measured is the participants snapchat usage, specifically the amount of time spent on the application. The independent variable is measured by participants self-reporting how many people they Snapchat and how long they spend on Snapchat in a given day.

There are two dependent variables for this research study; the first is the number of text messages sent by the participant, and the second is the willingness of the participant to be vulnerable. The number of text messages sent was measured by participants self-reporting about how many texts they sent in a given day, as well as how many texts they received in a given day. The vulnerability of the participants was measured by participants answering questions regarding their willingness to send “risky” or “embarrassing” messages and/or photos over text message and Snapchat. Vulnerability was also measured by asking participants to report on a scale how extroverted versus how introverted they are.

This study looks at the relationship between time spent on Snapchat and the amount of text messages being sent. The aim is to determine whether increased use of Snapchat leads to a decrease of text message usage. This study also looks at the relationship between a person’s willingness to be more vulnerable over Snapchat versus text as a result of Snapchat’s ephemerality, as well as the relationship between a person’s extroversion and their Snapchat and

text message usage. The aim is to determine if people are more willing to send “risky” or “embarrassing” messages and/or photos over snapchat as a result of the impermanence of the content.

#### 4. Study Design

In order to address these variables, our research took the form of a Qualtrics survey for ease of use and data analysis. The survey was distributed to a number of college-aged peers, and there were 48 respondents.

In order to address usage of Snapchat and Messages, we used two questions. Firstly, participants self-reported the amount of messages and snapchats sent and received that day. Secondly, participants were asked to use the battery feature in their phone’s settings to determine how many minutes they had spent that day on Snapchat and messages. This ended up not being our main point of focus because the amount of minutes spent on each application was marginally different, but the amount of messages/snapchats sent varied heavily. Because of this, we ended up choosing to focus on the more active variable of quantity of messages/snapchats sent versus the amount of minutes spent on the applications. Furthermore, we chose to not focus heavily on the amount of messages/snapchats received because this is less active and depends too little on the participants’ messaging behavior.

To quantify vulnerability, participants were asked about how likely they were to engage in certain activities over Messages or Snapchat with a scale that ranged from “extremely likely” to “extremely unlikely.” The first scenario presented to participants was how likely they were to send a photo of themselves first thing in the morning. The second was how likely they were to send an embarrassing photo. The third was how likely they were to send a revealing photo. Lastly, the fourth was how likely they were to send a risky message—a message that may not be received well by the recipient. The first two hypothetical scenarios are purposefully asked to address embarrassing situations. Embarrassing messages are more passive and casual than actively sending a revealing photo or risky message. The second two questions require some level of the sender going out of their way and putting themselves out there. This is an entirely different context and level of action. Because of the separate nature of these kinds of questions, we wanted to address multiple ways in which the sender could be vulnerable. Whether that

showing messy hair or a raunchy photo, different kinds of vulnerability are addressed in our study.

In order to quantify extroversion, participants were asked to rank themselves on a one (strongly introverted) to five (strongly extroverted) scale.

Other questions included general demographic questions (age and gender), what other social media platforms the participants used regularly, and whether the participants used an iPhone to access Snapchat and messages. The iPhone question was used to gauge whether participants could access the amount of minutes spent on the apps through the settings feature. These questions ended up being supplemental information for our research but ultimately had no lasting implications on our data.

## 5. Results and Implications

The objective of the experiment is two-fold: (1) determine if users wanting to express vulnerability are more likely to choose Snapchat over text message due to the ephemerality of the platform and (2) if a user defines his/herself as more extroverted than introverted, then determine whether he or she is more likely to be vulnerable on Snapchat. The survey results ultimately supported the first hypothesis (Snapchat over text message), while disproving the second hypothesis (Extroversion/Introversion and vulnerability). Rather, the results underlined that if a user defines his/herself as more extroverted than introverted, then he or she is less willing to be vulnerable over Snapchat.

From the survey, we found that there's no significant difference in the time users spend on Snapchat versus text messages. Snapchat was the platform users stated they spent the most time on (40%), followed by Instagram (37.5%), which validates that users are on the platform and we aren't drawing hypothetical conclusions from users. Concerning user choice to utilize Snapchat over text message when fulfilling a need to be vulnerable, there was an increase in user's willingness to send vulnerable content in every category for Snapchat. The categories included willingness to send a photo of yourself first thing in the morning, send an embarrassing photo of yourself, send a revealing photo of yourself, and send a risky message. The category that increased the most in willingness from text to Snapchat was willingness to send a photo of yourself first thing in the morning (2.37 mean increase), followed by sending an embarrassing

photo of yourself (1.25 mean increase), sending a revealing photo of yourself (0.91 mean increase), and lastly sending a risky message (0.14 mean increase).

In crafting the categories, we acknowledged the difference in nature between the early morning and embarrassing picture categories versus the revealing photo and risky message categories. In self-evaluating willingness, users may not be accurately reporting their willingness to send riskier content due to privacy concerns, the negative air around the subject, etc. Or perhaps users are widely cautious about sending revealing photos and risky messages on any platform in this age of media. This is a subject we would like to follow up in an additional study to better evaluate whether there's been a shift in willingness to send revealing or risky content due to the pervasiveness of media platforms.

Concerning the relationship between user extroversion/introversion and vulnerability on Snapchat, the experiment supported the opposite of our hypothesis. Moreover, if a user defines his/herself as more extroverted than introverted, then he or she is less willing to be vulnerable on Snapchat. Conversely, if a user defines his/herself as more introverted than extroverted, then he or she is more willing to be vulnerable on Snapchat. From the survey, we found that extroverts and introverts aren't using Snapchat more or less, but they're using it differently. We believe the meaning behind this relationship is that introverts utilize Snapchat as a type of barrier, making it easier for them to express vulnerability. There's a wall of comfortability that comes with the ephemerality of the platform; whereas, we believe that for extroverts the platform serves as an extension of their social circle. They may already fulfill their need to express vulnerability in person and don't need the barrier Snapchat provides. Additionally, the experiment highlighted that extroverts aren't sending more snapchats because they're extroverted but are snapchatting more people. This is another aspect of the study we would like to follow up with. Further research could be conducted with the introduction of weak ties theory to explore whether or not there are differences in the nature of friends on each social network.

In identifying previous research to inform and shape our study, we analyzed research studies related to how consumers are currently utilizing the Snapchat app and specifically whether there's a willingness to send vulnerable content due to the ephemerality. From the study "Sex, Lies, or Kittens? Investigating the use of Snapchat's Self-destructing Messages," researchers found that security is not a major concern for the majority of the respondents but

most do not use Snapchat to send sensitive content due to an understanding that messages can be recovered (Roesener). We expanded upon this study in adding the layer of extroversion versus introversion and willingness to send vulnerable or sensitive content. Though the relationship between extroversion/introversion and willingness to send vulnerable content was incorrect, we now better understand that Snapchat serves different purposes and fulfills different needs depending on the person. We originally were combining vulnerability with sociability and now have a fuller understanding of the difference. For introverts, Snapchat may serve as a barrier, making vulnerability easier, while extroverts may use it as an extension of their social life.

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