

# DISPOSITIONAL GRATITUDE AND SOCIAL COMPARISON ORIENTATION AMONG SOCIAL MEDIA USERS

Caroline Winata<sup>1</sup>; Esther Widhi Andangsari<sup>2</sup>

<sup>1,2</sup>Psychology Department, Humanities Faculty, Bina Nusantara University  
Jl. Kemanggisan Ilir 3, No. 45, Palmerah, Jakarta 11480, Indonesia  
<sup>2</sup>esther@binus.edu

## ABSTRACT

*The study aimed to explore the relationship between dispositional gratitude and social comparison orientation among social media users. The present study used a non-experimental research design with a quantitative approach with survey technique by distributing questionnaires to 296 Bina Nusantara University students aged 18-24 who used social media. The correlation between dispositional gratitude and social comparison orientation was calculated by Spearman correlation technique. The result shows that dispositional gratitude and social comparison orientation have a significant negative correlation.*

**Keywords:** *dispositional gratitude, social comparison orientation, social media*

## INTRODUCTION

The number of internet users in Indonesia shows a massive growth and has exceeded 50% penetration of internet users compared to the Indonesian population (Indonesia Internet Service Provider Association, 2016). From the total of Indonesian population in 2016, there are 252,6 million or 51,8% of internet users. The emergence of mobile internet is considered to facilitate its users can use the internet anytime. The data show that the largest number of internet users in Indonesia comes from mobile internet users which sum up to 92,8 million (69,9%). According to Indonesia Internet Service Provider Association (2016), the most popular internet activity is social media access with the amount of 129,2 million users (97,4%). The same source indicates that the most popular activity done by social media users in Indonesia is information sharing. Social media not only allows its users to maintain their friendship, connect to other people, and start a relationship with someone new but also facilitates its users to articulate their personal profile which contains information about themselves (Boyd & Ellison, 2007).

Features in social media encourage its users to share or posts things that are relevant to them through photos, music, or text on their profile, so other people who visit their profile will know their activities and information which displayed on the profile page. That explanation is relevant on Whiting and Williams (2013). It finds that the ease of accessing information about others is one of the factors that encourage many people to use social media. It looks that the internet has a positive way which users can get to know others more after viewing posts on their accounts. Furthermore, posts of their activities may boost the knowledge of things that are previously unknown such as information about the latest restaurants or interesting spots. However, users will compare the information with themselves when they receive such information (Mussweiler, Ruter, & Epstude in Lee, 2014) such as comparing lifestyles or social status. When a user compares himself/herself with those on social media, the state of the person will be affected, in which case the declining of positive effects and the escalation of negative effects (Gibbons & Buunk, 1999). Note that the rise of negative effects generates a feeling of envy within them (Fiske, 2010; Hellen & Saaksjarvi, 2012).

When social media users compare themselves with some positive information which has been selectively highlighted to be displayed, they are more likely to do upward comparisons (Feinstein *et al.*, 2013; Haferkamp & Kramer, 2011; Lee, 2014; Vogel *et al.*, 2014). The continuous upward comparisons prove to have a negative impact on a person's psychological state such as depression, self-esteem, self-evaluations, and well-being (Feinstein *et al.*, 2013; Kalpidou *et al.*, 2011; Lee, 2014; Vogel *et al.*, 2014; Haferkamp & Kramer, 2011; Kross *et al.* in Vogel *et al.*, 2015). However, based on the results of research that is conducted by White *et al.* (2006), it is found that the negative effects which occur on people who do social comparisons would rather get the result as the comparisons directions rather than comparisons frequents. The behavior of comparing themselves can refer as social comparison. Social comparison is a tendency that done by using others to evaluate themselves (Festinger in Patrick, Neighbors & Knee, 2004). Mussweiler *et al.* (in Lee, 2014) have stated that whenever someone is confronted with information about others ability, achievement, and circumstances, they will link the information with themselves. This suggests that any information about someone else will make individuals comparison is unavoidable (Goethals in Fujita, 2008). Nevertheless, individuals can still choose whether they will let the results of the social comparison affect his/her own feelings and perceptions or not (Fujita, 2008).

Gibbons and Buunk (1999) have stated that everyone has a different tendency in social comparisons. This difference can also be referred as social comparison orientation. Social Comparison Orientation (SCO) is an individual difference in the extent and the frequency of comparison that people make to others. When an individual has a high SCO score, he/she usually compares himself/herself to others more often, spends more time to engage in comparisons, and also experiences more emotional reactions when comparing themselves to others (Buunk & Gibbons, 2006). This suggests that SCO can predict how often and how great the impact the individual will experience when they compare themselves. The higher the score of SCO a person has, the more frequent he/she compares and the comparison results would have a deeper impact on the person. White *et al.* (2006) has argued that high-frequency social comparisons are associated with destructive emotions and behaviors such as envy, guilt, and regret that eventually affect a person's well-being negatively. In the meantime, research that is conducted by Vogel *et al.* (2015) has shown that people who have high SCO score are people who often use social media. In addition, these people have a worse self-perception, lower self-esteem, and have more negative feelings after comparing themselves with people in social media. This circumstance is corresponding with the existing phenomenon in which social media users compare themselves to the highlighted information displayed by other users continuously. It because of the vast information exposure from social media, therefore these users are adversely affected by social comparisons.

Based on some studies, it can be concluded that people who do social comparison more often are unhappy and have a more vulnerable affect response to the result of social comparison (Lyubomirsky & Ross, 1997; Lyubomirsky, Tucker, & Kasri, 2001; Giordano *et al.*, 2000; Swallow & Kuiper in White *et al.*, 2006). Later it is also found that a happy person would not let the social comparison affect them negatively (Lyubomirsky & Ross in Fujita, 2008). Happiness itself has a strong connection with gratitude (Watkins *et al.*, 2003; Peterson & Seligman, 2004) where McCullough *et al.* (2002) have found that grateful people have higher levels of positive emotions, satisfy with their life, and have lower levels of stress and depression. Based on this association, it can be assumed that gratitude also has a relationship with the differences in social comparisons. Gratitude or a sense of gratitude itself is a feeling of awe, gratitude, and appreciation of life (Emmons, McCullough & Tsang, 2003). The grateful people can accept themselves and what they have, so they do not feel envious of others (Peterson & Seligman, 2004). Social media users who have gratitude will not feel jealous and feel unrivaled when viewing other people's posts. The person with good sense of gratefulness does not deny or neglect the negative things in life (Peterson & Seligman, 2004), but he/she still chooses to be grateful and enjoy what he/she has.

Everyone has the different level of social comparison and gratitude. The difference exists because the different attributes and gratitude level which is the form of affection. This affection tendency can be presented inside every individual in the form of attributes, mood as well as emotion (McCullough *et al.*, 2002). This tendency can also be called as a dispositional gratitude. They also define dispositional gratitude as a tendency to be aware and respond with a sense of gratitude for the good of others experiences and the positive outcomes one gets. Dispositional gratitude is also described as a tendency to feel grateful that lasts from time to time and in various situations (Fleeson, 2001; Peterson & Seligman, 2004). The previous study shows that people with strong dispositional gratitude have higher levels of positive emotions, satisfy with their lives, and have lower levels of stress and depression (McCullough *et al.*, 2002).

The behavior of comparing ourselves with others is very common, especially in the emerging adulthood that they are spending more time for online activities and have access to the internet anywhere (Lee, 2014). These derived social comparisons are going to happen to everyone unavoidably each time they are confronted with information about others (Mussweiler *et al.* in Lee, 2014; Goethals in Fujita, 2008). Lee (2014) has also found that one of the intentions of people using social media is to make social comparisons, especially when viewing other people's posts. It shows that everyone must be doing social comparisons when using social media. However, individual SCO will affect how often and how much effect a user receives while performing the social comparison. Since SCO correlate negatively with subjective well-being (White *et al.*, 2006) and gratitude correlate positively with well-being (McCullough *et al.*, 2002). Therefore the authors presume that SCO might correlate negatively with gratitude. To the extent of the researcher's knowledge, the SCO research has been focused on seeing the effects of SCO on other aspects (Buunk & Dijkstra, 2014). Therefore, researchers are encouraged to view SCO from another perspective through variables that may be related to the score of SCO owned by a person, namely dispositional gratitude. Previous studies only propose about the negative effect of SCO. In this article, the authors willing to show the positive side of human being and prevent social media users from unhealthy well-being. Based on the explanation, the researcher is interested to know the relationship of dispositional gratitude with SCO which exists in social media users among emerging adulthood. The hypothesis proposed in this research is there is a significant correlation between dispositional gratitude and social comparison orientation among social media users. [A1]

## METHODS

Participants in this study are students of Bina Nusantara University (18-25 years), using social media in their daily life. Sampling technique is the combined strategy sampling which is a combination of quota sampling and convenience sampling (Gravetter & Forzano, 2012). The authors set the quota for some departments in Bina Nusantara University, such as computer science, humanities, design, accounting, and business. Then the authors announce to those students to fill in the questionnaire voluntarily. The design of this study is applied research (Neuman, 2014) and the data are calculated with Spearman's correlation.

Measurement of social comparison orientation is using instrument named INCOM (Iowa-Netherlands Comparison Orientation Scale) and adapted from Gibbons and Buunk (1999). This measuring instrument consists of 11 items measured on a 4-point Likert scale with the format of response strongly disagree, disagree, agree, and strongly agree. The scores of this measurement are based on the total score of all items. The higher of the total score gained, the higher the tendency of a person to do social comparisons, and vice versa. Adaptation to the measuring tool is done by conditioning the item into the context of the use of social media as an adjustment to the research topic. This adaptation measuring tool had  $\alpha = 0,785$ .

Dispositional gratitude is measured by Gratitude Questionnaire-Six Item Form (GQ-6) from McCullough *et al.* (2002). Before using this instrument in this study, the authors adapt in Bahasa. There are four aspects use to measure dispositional gratitude, i.e., intensity, frequency, range, and density. This scale consists of 6 items; then the authors decide to add nine items in the adaptation process of the measuring instrument so that finally the measuring instrument used consists of 15 items with the 4-point Likert scale from strongly disagree, disagree, agree, and strongly agree. Scores of this measurement are based on the total score of all items. The higher of the total score gained, the higher the tendency of a person to feel grateful, and vice versa. The measuring instrument of the adaptation has  $\alpha = 0,908$ .

## RESULTS AND DISCUSSIONS

Participants from this study are 296 (119 men and 177 women) with aged from 18 to 24 years ( $M = 19,99$ ;  $SD = 1,37$ ). Based on the results of control data obtained, it is found that the most widely used social media by participants are Facebook, Instagram, and Path. It is also found that the most frequently performed activities by participants are viewing posts in the home/timeline, posting private updates and viewing accounts belonging to others.

The results show that there are 148 participants who have a low category social orientation comparison rate, whereas there are 148 participants with a high degree of social comparison orientation. In addition to the dispositional gratitude level of participants, there are 147 participants are in a low category, and 149 participants are in the high category. People who fall into the high category of social comparison orientation tend to more often do social comparisons and are more affected by the consequences of such comparisons and vice versa (Buunk & Gibbons in Civitci & Civitci, 2015). While people who fall into the high category at the dispositional gratitude tend to be more frequent, and more intense in feeling grateful and more things that can make him grateful and vice versa for people who fall into the low category (Nelson & Lyubomirsky, 2016).

The results of the correlation between the dispositional gratitude and social comparison orientation are  $r_s = -0,171$ ,  $p < 0,01$ . This result indicates that there is a significant correlation between dispositional gratitude and social comparison orientation on social media users. The value (-) in correlation result indicates that the relationship between these two variables has a negative direction. It means if the value of social comparison orientation is higher, the dispositional gratitude value is lower and vice versa; if the dispositional gratitude value is higher than the value of social comparison orientation is lower. However, the correlation value of  $-0,171$  indicates that the correlation power possessed between the two variables is low.

In addition, the results obtain from the correlation calculation between social comparison orientation dimensions and dispositional gratitude for additional analysis. The correlation between the ability dimension in the social comparison orientation and the dispositional gratitude is  $r_s = -0,227$ ,  $p < 0,01$ . This result indicates that there is a significant correlation between the ability dimensions and dispositional gratitude. While the result of calculation from Table shows that the correlation test between the opinion dimension on social comparison orientation with dispositional gratitude is  $r_s = -0,056$ ,  $p > 0,05$ . This result indicates that there is no correlation between the dimensions of opinion with dispositional gratitude. The results from the Table indicate that only one dimension in the social comparison orientation has significant correlation with dispositional gratitude. Another result from this study is the calculation of crosstab between online duration of social media usage and level of social comparison orientation owns by participants. It can be seen in the Table.

Table Crosstab Result between Online Duration of Social Media with Social Comparison Orientation

		Online Duration of Social Media Usage in Daily		Total
		Less than 3 hours	More than 3 hours	
Social Comparison Orientation (SCO)	Low	95 (54%)	53 (45%)	148
	High	82 (46%)	66 (55%)	148
Total		177 (100%)	119 (100%)	296

The Table shows that respondents, who spent less than 3 hours in a day for social media usage, are bigger numbers in the low level of SCO. While respondents, who spent more than 3 hours in a day for social media usage, are bigger numbers in the high level of SCO. It can be said that the longer time spent online for social media usage, the higher level of Social Comparison Orientation they have (Indonesia Internet Service Provider Association, 2015).

There are several things that can be discussed of the results. The results show a significant relationship between dispositional gratitude with social comparison orientation on social media users. The first thing is about the linkage based on the theoretical concepts of each variable and the negative relationship between them. The results obtained in this study in accordance with the existing theoretical basis that explains that dispositional gratitude is a tendency to realize and appreciate the positive things that exists in life and feel grateful for the positive (Wood, Froh & Geraghty, 2010). When a person realizes the things he has and appreciates, he will tend to feel satisfied with his her/ life (Szcześniak & Soares, 2011) and also feel happy (Watkins *et al.*, 2003; Peterson & Seligman, 2004). When the person is satisfied with his/her life, the possibility of envy in him/her will be reduced (Krasnova *et al.*, 2013; Espín *et al.*, 2015). Gratitude itself also has a negative relationship with envy (McCullough *et al.*, 2002; Roberts in Lambert *et al.*, 2009). This means that the more a person has a sense of gratitude in himself, then he will be less likely to feel jealous of others. In fact, the sense of envy itself arises in a person because he or she compares himself with others (Lange & Crusius, 2015), no exception when the person is using social media, in the use of social media they will be confronted with various information about others who can used as an object of social comparison. In addition, social comparisons have a negative correlation with happiness (White *et al.*, 2006), meaning that the more often a person compares himself with others the lower the level of happiness. Considering there is no previous research that directly linked the dispositional gratitude with social comparison orientation, the researcher concludes that the correlation between the two variables is supported by other research related to these two variables.

It cannot be denied that the correlation result in this study is low. From some studies, it can be explained that there are other variables such as life satisfaction (Civitci & Civitci, 2015; Szcześniak & Soares, 2011), envy (Fiske, 2010; Hellen & Saaksjarvi, 2012; Lange & Crusius, 2015; McCullough *et al.*, 2002; Roberts in Lambert *et al.*, 2009), and happiness (Peterson & Seligman, 2004; Watkins *et al.*, 2003; White *et al.*, 2006) that can mediate these two variables. Another result from this study can also explain the low of its correlation. The correlation between ability dimension and dispositional gratitude is significant, but not significant correlation between the rest of OCS dimension and dispositional gratitude. Ability dimension in OCS has significant correlation with dispositional gratitude could be explained that people are not satisfied with themselves because they realize that they have same ability with others (Suls & Wheeler, 2000). Dissatisfaction is causing negative effects such as envy. In this case, based on the results of the correlation, it can be concluded that people who have a high level of grateful tendency will tend to be lower to compare in terms of ability and vice versa. When the person is not grateful for his ability, he will compare and resulting envy from that comparison. While based on correlation result between the dimensions of opinion with dispositional gratitude found that there is no correlation between them. When people make comparisons about opinions, they will feel satisfied when their opinions or thoughts are the same as others (Suls & Wheeler, 2000). Especially on the use of social media that facilitates the measurement of the similarity

of opinions with presence of "like" feature. With such of satisfaction, it can be obtained either by the presence or absence of gratitude in him. Since only the ability dimension contributes to the correlation between social comparison orientation and dispositional gratitude, it becomes one possible cause of the low correlation between the two variables.

The additional analysis of crosstab calculation between time spent online of social media usage and the level of social comparison orientation. The results of this crosstab calculation indicate that many respondents with high scores on SCO spent their time online more than 3 hours. The present invention may replicate the results of a study conducted by Vogel *et al.* (2015), social media users with high SCO values tends to use social media with a higher intensity compares to users with low SCO values.

The analysis is also conducted on control data obtained from the research, especially the activities undertaken by the participants when using social media. Based on the results, these are 3 activities that are most often performed by respondents: see the posts in the home/timeline, update the post privately and see the account belongs to someone else. From this result it can be said that passive social media usage is bigger than active social media usage. They like to observe home/timeline that belonging to others, and proactively see the account belongs to someone else (Krasnova *et al.*, 2013) than using social media as a media of interacting with others. Passive following behavior itself has a negative impact on them. They will perform of feeling tired, annoyed, and also feel has a lot of burden (Maier *et al.*, 2012; Koroleva, Krasnova, & Günther in Krasnova *et al.*, 2013). It happens when people use social media passively, they will feel envy while observe other's posting or timeline (Krasnova *et al.*, 2013). Krasnova *et al.*, (2013) also have found that the effects of passive following and social comparisons and envy may lead to the emergence of a phenomenon called self-promotion-envy spiral. It is a phenomenon when users viewing other people's posts (self-promotion by others) will drive him/her to posts containing self-promotion about himself/herself. In keeping with the phenomenon, viewing home/timeline and other people's accounts trigger people to update private posts. When they see someone else's information or self-promotion, they view the home/timeline and "like" response, they also update personal posts containing self-promotion. Therefore, based on this analysis, the authors assume that self-promotion-envy spiral is the cause of the large number of participants performing those activities.

This study also has some limitations, such as does not use the specific criteria in the intensity of the use of social media usage as participant's criteria. Participants in this study have the various intensity of social media usage. This study does not specify the participants only for the clinical sample. It gives the consequence for the level of correlation. Another limitation is this study does not consider the mediating variables that can influence the relation between SCO and dispositional gratitude. This study focuses on the relationship between the two variables directly without any involvement of other variables.

## CONCLUSIONS

Based on the results, it can be concluded that there is a significant negative correlation between social comparison orientation and dispositional gratitude on social media users. It also can be concluded that people who often do social comparison through social media will feel less grateful. Similarly, the opposite applies, when a person has a high tendency in feeling grateful, then he/she will rarely do social comparisons through social media. For the next study, it is suggested to do the study about social comparison online, and gratitude with consider to other variables such as life satisfaction, happiness, or envy that may position as an intervening variable, the comparison of respondent's sex, and the use of clinical samples rather than normal samples.

## REFERENCES

- Boyd, D. M., Ellison, N. B. (2007). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230. doi: <http://doi:10.1111/j.1083-6101.2007.00393.x>.
- Buunk, A. P., & Dijkstra, P. (2014). Social Comparison Orientation and Perspective Taking as Related to Responses to a Victim. *Psychology*, 5(5), 441-450. doi: <http://doi.org/10.4236/psych.2014.55054>.
- Civitci, N., & Civitci, A. (2015). Social Comparison Orientation, Hardiness and Life Satisfaction in Undergraduate Students. *Procedia - Social and Behavioral Sciences*, 205, 516-523. doi <http://doi.org/10.1016/j.sbspro.2015.09.062>.
- Emmons, R. A., McCullough, M. E., & Tsang, J. (2003). The measurement of gratitude. In S. Lopez & C. R. Snyder (Eds.), *Handbook of positive psychology assessment* (pp. 327-341). Washington, DC: American Psychological Association.
- Espín, A. M., Moreno-Herrero, D., Sánchez-Campillo, J., & Martín, J. A. R. (2015). Do Envy and Compassion Pave the Way to Unhappiness? Social Preferences and Life Satisfaction in a Spanish City. *Journal of Happiness Studies*, 1-49.
- Feinstein, B. A., Hershenberg, R., Bhatia, V., Latack, J. A., Meuwly, N., & Davila, J. (2013). Negative Social Comparison on Facebook and Depressive Symptoms: Rumination as a Mechanism. *Psychology of Popular Media Culture*, 2(3), 161-170.
- Fiske, S. T. (2010). Envy up, scorn down: How comparison divides us. *American Psychologist*, 65(8), 698-706. doi: <http://doi.org/10.1037/0003-066X.65.8.698>.
- Fleeson, W. (2001). Toward a Structure and Process Integrated View of Personality: Traits as Density Distributions of States. *Journal of Personality and Social Psychology*, 80(6), 1011-1027.
- Fujita, K. (2008). Seeing the Forest Beyond the Trees: A Construal-Level Approach to Self-Control. *Social and Personality Psychology Compass*, 2(3), 1475-1496.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: The development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76(1), 129-142.
- Giordano, C., Wood, J. V., & Michela, J. L. (2000). Depressive Personality Styles, Dysphoria, and Social Comparisons in Everyday Life. *Journal of Personality and Social Psychology*, 79(3), 438-451. doi: <http://doi.org/10.1037/0022-3514.79.3.438>.
- Gravetter, F. J., & Forzano, L. B. (2012). *Research Methods for the Behavioral Sciences* (4<sup>th</sup> ed.). Canada: Wadsworth, Cengage Learning.
- Haferkamp, N., & Krämer, N. C. (2011). Social Comparison 2.0: Examining the Effects of Online Profiles on Social-Networking Sites. *Cyberpsychology, Behavior, and Social Networking*, 14(5), 309-314. doi: <http://doi.org/10.1089/cyber.2010.0120>.

- Indonesia Internet Service Provider Association. (2015). *Profil Pengguna Internet Indonesia 2014*. Jakarta: APJII.
- Indonesia Internet Service Provider Association. (2016). *Statistik Pengguna dan Perilaku Pengguna Internet Indonesia*. Jakarta: APJII.
- Kalpidou, M., Costin, D., & Morris, J. (2011). The Relationship Between Facebook and the Well-Being of Undergraduate College Students. *Cyberpsychology, Behavior, and Social Networking*, 14(4), 183-189. doi: <http://doi.org/10.1089/cyber.2010.0061>.
- Krasnova, Hanna; Wenninger, Helena; Widjaja, Thomas; Buxmann, Peter (2013). Envy on Facebook: a hidden threat to users' life satisfaction? In *Proceedings of the 11th International Conference on Wirtschaftsinformatik (WI2013)*. Universität Leipzig, Germany. pp. 1-16. doi: <http://doi.org/10.7892/boris.47080>.
- Lambert, N. M., Fincham, F. D., Stillman, T. F., & Dean, L. R. (2009). More Gratitude, Less Materialism: The Mediating Role of Life Satisfaction. *The Journal of Positive Psychology*, 4(1), 32-42. doi: <http://doi.org/10.1080/17439760802216311>.
- Lee, S. Y. (2014). How Do People Compare Themselves with Others on Social Network Sites? The Case of Facebook. *Computers in Human Behavior*, 32, 253-260.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic Consequences of Social Comparison: A Contrast of Happy and Unhappy People. *Journal of Personality and Social Psychology*, 73(6), 1141-1157.
- Lyubomirsky, S., Tucker, K. L., & Kasri, E. (2001). Responses to hedonically-conflicting social comparisons: Comparing happy and unhappy people. *European Journal of Social Psychology*, 31, 1-25.
- Maier, C., Laumer, S., Eckhardt, A., & Weitzel, T. (2012). When Social Networking Turns to Social Overload: Explaining the Stress, Emotional Exhaustion, and Quitting Behavior from Social Network Sites' Users. *European Conference on Information System*, 1-12.
- McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The Grateful Disposition: A Conceptual and Empirical Topography. *Journal of Personality and Social Psychology*, 82, 112-127. doi: <http://doi.apa.org/getdoi.cfm?doi=10.1037/0022-3514.82.1.112>.
- Nelson, S. K., & Lyubomirsky, S. (2016). Gratitude. In H. S. Friedman (Ed.), *Encyclopedia of Mental Health* (2<sup>nd</sup> ed., Vol. 2). Waltham, MA: Academic Press. pp. 277-280.
- Neuman, W. L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches* 7. London: Pearson Education Limited.
- Patrick, H., Neighbors, C., & Knee, C. (2004). Appearance-Related Social Comparisons: The Role of Contingent Self-Esteem and Self-Perceptions of Attractiveness. *Personality and social psychology bulletin pers soc psychol bull*, 30(4), 501-514.
- Peterson, C., & Seligman, M. E. P. (2004). *Character Strengths and Virtues: A Handbook and Classification*. Oxford: Oxford University Press.
- Suls, J. M., & Wheeler, L. (2000). *Handbook of Social Comparison: Theory and Research*. New York: Kluwer Academic/Plenum.

- Szcześniak, M., & Soares, E. (2011). Are Proneness to Forgive, Optimism and Gratitude Associated with Life Satisfaction? *Polish Psychological Bulletin*, 42(1), 20-23.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social Comparison, Social Media, and Self-Esteem. *Psychology of Popular Media Culture*, 3(4), 206-222. doi: <http://doi.org/10.1037/ppm0000047>.
- Vogel, E. A., Rose, J. P., Okdie, B. M., Eckles, K., & Franz, B. (2015). Who Compares and Despairs? The Effect of Social Comparison Orientation on Social Media Use and Its Outcomes. *Personality and Individual Differences*, 86, 249-256. doi: <http://doi.org/10.1016/j.paid.2015.06.026>.
- Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude and relationships with subjective well-being. *Social Behavior and Personality: An international journal*, 31(5), 431-452. doi: <https://doi.org/10.2224/sbp.2003.31.5.431>.
- White, J. B., Langer, E. J., Yariv, L., & Welch IV, J. C. (2006). Frequent Social Comparisons and Destructive Emotions and Behaviors: The Dark Side of Social Comparisons. *Journal of Adult Development*, 13(1), 36-44. <http://doi.org/10.1007/s10804-006-9005-0>.
- Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative Market Research: An International Journal*, 16(4), 362-369. doi: <https://doi.org/10.1108/QMR-06-2013-0041>.
- Wood, A. M., Froh, J. J., Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinic Psychology Review*, 30(7), 890-905.